

FEA RECEIPT # 1701030  
2010 APR 12

RECEIVED

APR 14 2010

PRINTING OPERATIONS  
AIR GENERAL PERMIT REGISTRATION FORM  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
& NUCLEAR REGULATION

FLORIDA DEPARTMENT OF  
ENVIRONMENTAL PROTECTION

2010 APR 12 AM 9:33

FINANCE ACCOUNTING  
REVENUE

Part II. Notification to Permitting Office

(Detach and submit to appropriate permitting office; keep copy onsite)

**Instructions:** To give notice to the Department of an eligible facility's intent to use this air general permit, the owner or operator of the facility must detach and complete this part of the Air General Permit Registration Form and submit it to the appropriate Department of Environmental Protection or local air pollution control program office which has permitting authority. Please type or print clearly all information, and enclose the appropriate air general permit registration processing fee pursuant to Rule 62-4.050, F.A.C. (\$100 as of the effective date of this form)

0112680-004

Registration Type

Check one:

**INITIAL REGISTRATION** - Notification of intent to:

- Construct and operate a proposed new facility.
- Operate an existing facility not currently using an air general permit (e.g., a facility proposing to go from an air operation permit to an air general permit).

**RE-REGISTRATION** (for facilities currently using an air general permit) - Notification of intent to:

- Continue operating the facility after expiration of the current term of air general permit use.
- Continue operating the facility after a change of ownership.
- Make an equipment change requiring re-registration pursuant to Rule 62-210.310(2)(e), F.A.C., or any other change not considered an administrative correction under Rule 62-210.310(2)(d), F.A.C.

Surrender of Existing Air Operation Permit(s) - For Initial Registrations Only

If the facility currently holds one or more air operation permits, such permit(s) must be surrendered by the owner or operator upon the effective date of this air general permit. In such case, check the first box, and indicate the operation permits being surrendered. If no air operation permits are held by the facility, check the second box.

- All existing air operation permits for this facility are hereby surrendered upon the effective date of this air general permit; specifically permit number(s):
- No air operation permits currently exist for this facility.

General Facility Information

Facility Owner/Company Name (Name of corporation, agency, or individual owner who or which owns, leases, operates, controls, or supervises the facility.)

J. S. Paluch Company, Inc.

Site Name (Name, if any, of the facility site; e.g., Plant A, Metropolis Plant, etc. If more than one facility is owned, a registration form must be completed for each.)

J. S. Paluch Company, Inc.

Facility Location (Provide the physical location of the facility, not necessarily the mailing address.)

Street Address: 4300 NW 124th Avenue

City: Coral Springs

County: Broward

Zip Code: 33065

Facility Start-Up Date (Estimated start-up date of proposed new facility.)(N/A for existing facility)  
N/A

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**Owner/Authorized Representative**

Name and Position Title (Person who, by signing this form below, certifies that the facility is eligible to use this air general permit.)  
Print Name and Title: Dan Shrader, National Operations Manager

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION  
2010 APR 12 AM 9:34  
REVERSE

Owner/Authorized Representative Mailing Address  
Organization/Firm: J. S. Paluch Company, Inc.  
Street Address: 3708 North River Road, Suite 400  
City: Franklin Park County: Cook, IL Zip Code: 60131

Owner/Authorized Representative Telephone Numbers  
Telephone: 847-233-2778 Fax: 847-671-4911  
Cell phone (optional):

**Facility Contact (If different from Owner/Authorized Representative)**

Name and Position Title (Plant manager or person to be contacted regarding day-to-day operations at the facility.)  
Print Name and Title: John Ficarra, Plant Manager

Facility Contact Mailing Address  
Organization/Firm: J. S. Paluch Company, Inc.  
Street Address: 4300 NW 124th Avenue  
City: Coral Springs County: Broward Zip Code: 33065

Facility Contact Telephone Numbers  
Telephone: 800-432-3240 Fax: 954-345-4931  
Cell phone (optional):

**Owner/Authorized Representative Statement**

This statement must be signed and dated by the person named above as owner or authorized representative  
*I, the undersigned, am the owner or authorized representative of the owner or operator of the facility addressed in this Air General Permit Registration Form. I hereby certify, based on information and belief formed after reasonable inquiry, that the facility addressed in this registration form is eligible for use of this air general permit and that the statements made in this registration form are true, accurate and complete. Further, I agree to operate and maintain the facility described in this registration form so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof.*  
  
*I will promptly notify the Department of any changes to the information contained in this registration form.*

  
Signature

4-9-10  
Date

**Printing Process/InkType(s)**

Check all that apply:

- Heatset Offset Lithographic
- Screen or Letterpress
- Flexographic

- Non-Heatset Offset Lithographic
- Water Based
- Rotogravure

- Digital
- Ultraviolet Cured

**Compliance Assurance - Initial Registration (Not Required for Re-Registration)**

Below, or as an attachment to this form, provide the method (mass balance or material usage rates) expected to be used to demonstrate compliance with Rule 62-210.310(4)(f)2., F.A.C. Provide the estimated amount of materials containing hazardous air pollutants and solvent-containing materials expected to be used over a 12-month period.

NOT APPLICABLE

**Compliance Determination - Re-Registration (Not Required for Initial Registration)**

Below, or as an attachment to this form, provide the highest 12-month total quantity of materials containing hazardous air pollutants and the highest 12-month total quantity of solvent-containing materials used in the last five years to show compliance with sub-subparagraph 62-210.310(4)(f)2.b., F.A.C. (material usage rates) or provide all calculations to show compliance with sub-subparagraph 62-210.310(4)(f)2.a., F.A.C. (mass balance).

FLORIDA DEPARTMENT OF REVENUE  
COUNTING

Highest 12-month running total of materials containing hazardous air pollutants:  
239.81 gallons - December 2009

Facility potential annual total quantity of materials containing hazardous air pollutants:

Actual 2009 usage materials containing hazardous air pollutants + Averaged Press 3 usage:  
239.98 gals + 79.93 gals = 319.91 gals/year materials containing hazardous air pollutants

Highest 12-month running total of cleaning solvent and fountain solution additives combined:  
325.22 gallons - May 2009

Facility potential annual total quantity of cleaning solvent and fountain solution additives:

Actual 2009 total usage cleaning solvent plus fountain solution additives  
+ maximum potential Press 3 annual cleaning solvent plus fountain solution additives:

305.86 gallons + 2,284.56 gallons = 2,590.42 potential gallons/year cleaning solvent plus fountain solution

See Attachment A for 12-Month Running Totals, Potential Material Usage Calculations, and Raw Material Usage Summary Tables.

**Description of Facility**

Below, or as an attachment to this form, provide a description of the printing operations at the facility in sufficient detail to demonstrate the facility's eligibility for use of this air general permit and to provide a basis for tracking any future equipment or process changes at the facility. Information should include a description of the number and types of printing processes, presses and ink systems being used at the facility. Describe all air pollutant-emitting processes and equipment at the facility, and identify any air pollution control measures or equipment used.

See Attachment B for equipment specifics, ink systems, and printing process descriptions.

**Attachment A**

**12-Month Running Totals, Potential Annual Material Usage, Actual Monthly  
Material Usage, and Material Usage Summary Tables**

**J.S. Paluch Company**  
**2008-2009 Material Usage/VOC Emissions/HAP Materials**  
**12-Month Running Totals**

2009	Monthly Gallons of Non-Heatset Inks Used	Monthly Gallons of Fountain Solution/Clean Up Solvent Used	Monthly Tons of Ink, Fountain Solution and Clean-Up Solvent VOC Emissions	2008-2009 Gallons of Fountain Solution / Clean-Up Solvent Used - 12-Month Running Total	2008-2009 Tons of Ink, Fountain Solution and Clean-Up Solvent VOC Emissions - 12-Month Running Total	2008-2009 Gallons of HAP Containing Materials 12-Month Running Total
Permit Limits	N/A - No Usage Limit	N/A - No Usage Limit	N/A - No Usage Limit	14,250 gals/year	80 tons VOC/yr (8/20 tons HAP/yr)	Rule 62-210.310(4)(f)2.b. 1,333 gals
JANUARY	782.00	21.31	0.28	263.64	4.12	218.57
FEBRUARY	954.00	26.92	0.33	291.73	4.08	204.07
MARCH	1026.00	31.98	0.39	309.89	4.01	227.41
APRIL	1029.00	29.83	0.36	314.88	4.09	235.28
MAY	1070.00	31.78	0.37	325.22	4.07	225.05
JUNE	935.00	22.84	0.25	315.33	3.97	217.32
JULY	781.00	22.62	0.27	316.38	4.00	219.29
AUGUST	927.00	26.85	0.30	314.38	3.96	218.50
SEPTEMBER	812.00	20.06	0.23	317.43	3.94	224.61
OCTOBER	830.00	20.51	0.28	315.02	3.93	221.83
NOVEMBER	1336.00	30.26	0.40	314.00	3.90	223.67
DECEMBER	1376.00	23.16	0.59	308.11	4.06	239.81
<b>TOTALS</b>	<b>11858.00</b>	<b>308.11</b>	<b>4.06</b>			



**J.S. Paluch Company**  
**Annual Maximum Potential Ink, Fountain Solution, Cleaning Solvent,**  
**and Hazardous Air Pollutant Material Usage**

**2009 Actual Usage Data (Presses 1, 2, and 4)**

**Total Inks used: 111,492 lbs**

**Total Fountain Solution (FS) gallons used: 158.42 gals**

**Total Cleaning Solvent (CS) gallons used: 147.44 gals**

**Total hazardous air pollutant (HAP) containing materials gallons used: 239.98 gals**

**Press No. 3 Maximum Potential Ink Usage**

**700 feet paper/minute x 60 min/hr x 4,316 hrs/yr = 181,272,000 ft paper/yr**

**(181,272,000 ft paper/yr x 12 inches)/17 inches per sheet = 127,956,706 sheets/yr**

**127,956,706 sheets/yr x 0.000187 lbs ink/sheet = 23,928 lbs ink/yr**

**23,928 lbs ink/10.01 lbs per gal = 2,390 gal ink/yr**

**Press No. 3 Maximum Potential Fountain Solution Usage**

**23,982 lbs Max ink/year x 0.46 lbs FS/lb ink = 11,031.72 lbs FS/year**

**11,031.72 lbs FS/year / 9.00 lbs/gal FS = 1,225.75 gals FS/year**

**Press No. 3 Maximum Potential Cleaning Solvent Usage**

**23,982 lbs Max ink/year x 0.40 lbs CS/lb ink = 9,592.80 lbs CS/year**

**9,592.80 lbs CS/year / 9.06 lbs/gal CS = 1,058.81 gals CS/year**

**Press No. 3 Maximum Potential FS + Maximum Potential CS Usage**

**1,225.75 gals FS/year + 1,058.81 gallons CS/year = 2,284.56 gals FS and CS combined**

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**Facility Potential Ink Usage = 2009 Actual Usage + Maximum Potential Press 3 Usage**

**111,492 lbs + 23,928 lbs = 135,420 lbs Facility Potential Ink Usage**

**Facility Potential Fountain Solution Usage = 2009 Actual Usage + Maximum Potential Press 3 Usage**

**158.42 gals + 1,225.75 gals = 1,384.17 gals FS/year**

**Facility Potential Cleaning Solvent Usage = 2009 Actual Usage + Maximum Potential Press 3 Usage**

**147.44 gals + 1,058.81 gals = 1,206.25 gals CS/year**

**Facility Potential Fountain Solution and Cleaning Solvent Usage Total**

**= 1,384.17 gals FS + 1,206.25 gals CS = 2,590.42 gals/year**

**Facility Potential HAP Containing Materials Usage = 2009 Actual Usage + Averaged Press 3 Usage**

**= 239.98 gallons 2009 / 3 existing presses = Average 79.93 gals/press**

**= 239.98 gallons + Average per press 79.93 gals = 319.91 gals/year**





**Attachment B**

**Equipment, Ink Systems, and Printing Process**

J. S. Paluch Company, Inc.  
Coral Springs, Florida

### Printing Process Description

Printing operations at the facility will include the use of three (3) existing and one (1) additional (for a total of four) sheetfed, coldset (e.g., non-heatset) offset lithographic printing presses. The emission points consist of fugitive emissions from the printing press operations. No emission control devices or dedicated exhaust are used at the facility. Emission control is accomplished by the use of low Volatile Organic Compound (VOC) inks.

The printing presses at the facility currently include the following:

Press No. 1 - Didde Web Press, Model 206-678 Compu - Press, Serial #420-0128  
Press No. 2 - Didde Web Press, Model 205-821 Webcom 700, Serial #189-0161  
Press No. 4 - Super Web, Supercom 1000

This application is submitted for the addition of one press as follows:

Press No. 3 - Didde Web Press Model RSW11C6 Webcom C, Serial #189-0053

Press Nos. 1, 2, and 3 are five-color presses and Press No. 4 is an eight color press that will also process UV inks.

Lithography is an "offset" printing technique. Ink is not applied directly from the printing plate (or cylinder) to the substrate as it is in gravure, flexography and letterpress. Ink is applied to the printing plate to form the "image" (such as text or artwork to be printed) and then transferred or "offset" to a rubber "blanket". The image on the blanket is then transferred to the substrate (typically paper or paperboard) to produce the printed product. On sheetfed presses, the substrate is fed into the press one sheet at a time at varying speeds.

All offset presses have three printing cylinders, as well as the inking and dampening systems. The plate cylinder, the blanket cylinder and the impression cylinder.

Lithography uses a planographic plate, a type of plate on which the image areas are neither raised nor indented (depressed) in relation to the non-image areas. Instead the image and non-image areas, both on essentially the same plane of the printing plate, are defined by differing physiochemical properties.

Lithography is based on the principle that oil and water do not mix (hydrophilic and hydrophobic process). Lithographic plates undergo chemical treatment that render the image area of the plate oleophilic (oil-loving) and therefore ink-receptive and the non-image area hydrophilic (water-loving). During printing, fountain (dampening) solution, which consists primarily of water with small quantities of isopropyl alcohol and other

additives to lower surface tension and control pH, is first applied in a thin layer to the printing plate and migrates to the hydrophilic non-image areas of the printing plate. Ink is then applied to the plate and migrates to the oleophilic image areas. Since the ink and water essentially do not mix, the fountain solution prevents ink from migrating to the non-image areas of the plate.

As the plate cylinder rotates, the plate comes in contact with the dampening rollers first. The dampening rollers wet the plate so the non-printing areas repel ink. Then the inking rollers transfer ink to the dampened plate, where ink only adheres to the image areas. The inked image is transferred to the rubber blanket, and the substrate is printed as it passes between the blanket and impression cylinder.

The major unit operations in a lithographic printing operation include:

- Image preparation
- Processing printing plates
- Printing
- Finishing
- Image Preparation of Lithographic Printing Plates

Image preparation begins with camera-ready (mechanical) art/copy or electronically produced art supplied by the customer. Images are captured for printing by camera, scanner or computer. Components of the image are manually assembled and positioned in a printing flat when a camera is used. This process is called stripping. When art/copy is scanned or digitally captured the image is assembled by the computer with special software. A simple proof (brown print) is prepared to check for position and accuracy. When color is involved, a color proof is submitted to the customer for approval.

There are four common types of lithographic inks that are very viscous to the point they are paste-like. Litho inks are generally very strong in color value to compensate for the lesser amount applied. Sheetfed litho inks are similar to oxidizing types of letterpress inks. To accelerate drying and control ink flow characteristics, litho inks contain solvents (or drying oils) that result in some VOC emissions from the ink.

The four printing presses are sheetfed with the following maximum paper feed rates:

- Press 1 - 800 feet per minute (fpm) with the maximum paper sheet size of 11" x 17"
- Press 2 - 700 fpm with the maximum paper sheet size of 17" x 22"
- Press 3 - 700 fpm with the maximum paper sheet size of 11" x 17"
- Press 4 - 1,000 fpm with the maximum paper sheet size of 17" x 22"

Maximum press operating hours are limited by the following process limitations and bottlenecks:

- Press preparation/cleaning = 1.5 hours per job or shift

- Catholic Church is the facility's only client that provides orders on a weekly basis for weekend delivery (for Sunday use)
- Weekly order shipments must be completed by 5 P.M. Fridays – Partial day Friday (17 hrs) and no weekend work due to client base

Job orders are received weekly on Mondays with jobs requiring completion by the following Friday for shipment to the client by 5 P.M. Therefore, printing operations are limited to Tuesday-Friday with Friday printing operations completed by 5 P.M. to allow for shipment to the customer. In addition, press preparation and cleanup activities also limit the press operating times. Typical press preparation and cleanup activities require 1.5 hours per press for each new printing job. With these process limitations/bottlenecks in place, annual maximum press operating hours are restricted to 4,316 hours per year as indicated in the following equation:

$$[(3 \text{ days Mon-Thurs} \times 24 \text{ hrs/day}) - (1.5 \text{ hrs day prep/cleanup time} \times 3 \text{ days/wk})] + [17 \text{ hrs/day Fri (12AM-5PM)} - 1.5 \text{ hrs/day prep/cleanup time}] = 83 \text{ hrs/week}$$

$$83 \text{ hrs/wk} \times 52 \text{ week/yr} = 4,316 \text{ hrs/yr}$$

Following are the current individual press ink coverage values:

- Press 1 - 0.000280 pounds of ink per sheet
- Press 2 - 0.000561 pounds of ink per sheet
- Press 3 - 0.000187 pounds of ink per sheet
- Press 4 - 0.000623 pounds of ink per sheet

The maximum VOC content of the inks used at the facility is 1.60 pounds of VOC per gallon of ink (lbs VOC/gal). Maximum VOC content for fountain solution used at the facility is 6.40 lbs VOC/gal. Maximum VOC content for cleanup solvent used at the facility is 7.70 lbs VOC/gal.



**J.S. PALUCH COMPANY, INC.  
3708 RIVER ROAD, SUITE 400  
FRANKLIN PARK, ILLINOIS 60131**

April 7, 2010

Florida Department of Environmental Protection  
Air General Permit Program  
3800 Commonwealth Boulevard, MS-77  
Tallahassee, Florida 32399

**Re: Air General Permit Re-Registration  
Active Permit ID Number 0112680-003-AG  
J.S. Paluch Company  
4300 NW 124<sup>th</sup> Avenue  
Coral Springs, Florida 33065**

Enclosed please find the Air General Permit Re-Registration form for the J.S. Paluch Company facility located at 4300 NW 124<sup>th</sup> Avenue in Coral Springs, Florida (the facility). A check for the \$100.00 Re-Registration fee is included.

The Air Permit Re-Registration form is being submitted due to the proposed reinstallation of one sheetfed coldset offset lithographic printing press (Press No. 3) to the existing three printing presses currently in operation at the facility.

Attachment A to the form includes 12-month running totals for materials containing hazardous air pollutants and solvent containing materials, along with material usage summary tables. Attachment B includes information regarding equipment descriptions, ink systems, and printing processes. Regulated material usage rates and emissions will remain below Air General Permit limits as outlined in Rule 62-210.310(4)(f).

If you have any questions or require additional information, please contact our environmental consultant, Mostardi Platt Environmental, Rosanne Linden at (630) 993-2111.

Regards,

J.S. PALUCH COMPANY, INC.

Dan Shrader  
National Operations Manager

Enclosures

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION  
2010 APR 12 AM 9:33  
FINANCIAL CONSULTING  
REVENUE