



**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
ENGINEERING AND COMPLIANCE DIVISION**

Coating, Printing, Aerospace & Metal Finishing Team

PERMIT APPLICATION EVALUATION

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A/Ns	511637
Processed by	Wilma Wilson
Reviewed by	Stacey Ebner
Date	1/11/11

PERMIT TO CONSTRUCT

New Flexographic Printing Press (Electric Dryer)

Applicant's Name: *Epsilon Plastics Inc.*
Facility ID: 136202
Mailing Address: 3100 E. Harcourt St., Rancho Dominguez, CA 90221
Equipment Address: 3100 E. Harcourt St., Rancho Dominguez, CA 90221

EQUIPMENT DESCRIPTION

A/N 512910

TITLE V PERMIT - DE MINIMIS SIGNIFICANT PERMIT REVISION

A/N 511637

PLASTIC BAG MANUFACTURING/PRINTING SYSTEM NO. 12 CONSISTING OF:

1. HOPPER.
2. EXTRUDER.
3. DIE ASSEMBLY.
4. TOWER ASSEMBLY, WITH ONE 15 H.P. BLOWER.
5. PRIMARY NIP ROLL ASSEMBLY.
6. FLEXOGRAPHIC PRINTING PRESS, WOLVERINE, MODEL NO. 31-4, FOUR COLOR, 30" WEB WIDTH.
7. ELECTRIC DRYER, 50 K.W., WITH ONE 5 H.P. INTAKE BLOWER AND ONE 5 H.P. EXHAUST BLOWER.
8. POST GUSSET MECHANISM.
9. BAG MACHINE.
10. REWIND STATION.



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Conditions

1. OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN COMPLIANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.
3. THIS EQUIPMENT SHALL BE OPERATED IN COMPLIANCE WITH RULES 1130 AND 1171.
4. THE TOTAL QUANTITY OF VOLATILE ORGANIC COMPOUNDS (VOC) EMISSIONS FROM THIS EQUIPMENT SHALL NOT EXCEED 30 POUNDS IN ANY ONE DAY.
5. THE TOTAL QUANTITY OF VOC EMISSIONS FROM THIS FACILITY SHALL NOT EXCEED 152 POUNDS IN ANY ONE DAY.
6. VOC CONTENT OF INKS AND COATINGS SHALL NOT EXCEED 1.5 POUNDS PER GALLON AS APPLIED INCLUDING WATER AND EXEMPT SOLVENT.
7. CLEANUP MATERIALS SHALL NOT CONTAIN VOC.
8. IN ADDITION TO THE RECORDKEEPING REQUIREMENTS IN RULE 109, THE OPERATOR SHALL KEEP ADEQUATE RECORDS FOR THE EQUIPMENT AND FACILITY TO VERIFY THE DAILY VOC EMISSIONS, AND VOC CONTENT OF THE MATERIALS AS APPLIED INCLUDING WATER AND EXEMPT SOLVENTS. ALL RECORDS SHALL BE PREPARED IN A MANNER THAT IS ACCEPTABLE TO THE DISTRICT. RECORDS SHALL BE RETAINED ON THE PREMISES FOR TWO YEARS AND SHALL BE MADE AVAILABLE TO THE EXECUTIVE OFFICER OR HIS REPRESENTATIVE UPON REQUEST.
9. MATERIALS USED IN THIS EQUIPMENT SHALL NOT CONTAIN ANY TOXIC AIR CONTAMINANTS IDENTIFIED IN RULE 1401, TABLE 1 WITH AN EFFECTIVE DATE OF JUNE 5, 2009 OR EARLIER WITH THE EXCEPTION OF AMMONIA (CAS# 7664-41-7).
10. MATERIAL SAFETY DATA SHEETS FOR ALL MATERIALS USED AT THIS FACILITY AND SUBJECT TO DISTRICT RULES SHALL BE KEPT CURRENT AND MADE AVAILABLE TO DISTRICT PERSONNEL UPON REQUEST.



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BACKGROUND

A/N 511637 was submitted as Class 1 on 6/10/10 for a new flexographic printing press with an electric dryer. This press will have an equipment cap of 30 lb/day VOC operating under the existing facility limit of 152 lb/day of VOC. Therefore, this project will not result in any emission increase from the facility. There will be no combustion contaminants since the dryer is electric. Epsilon Plastic is a Title V facility. A Title V permit revision application no. 512910 was submitted on 7/27/10. This is the first revision to the TV renewal permit issued on 1/20/2008.

The District compliance data base does not show any NOV, NC or complaints for this facility. The inspector visited 7/1/10 and were in compliance.

PROCESS DESCRIPTION

The applicant manufactures and prints polyethylene plastic bags, such as those used for dry cleaners and supermarkets. The manufacturing process includes the following: Pelletized polyethylene plastic is placed in hoppers that feed a thermal heated screw conveyor, which feeds the extruder which forms a continuous web of plastic. This web is then fed through one of the flexographic printing presses, where the desired design and colors are printed onto the bag. The ink is then dried in the electric dryer. Once printed and dried, the web is perforated and sealed into the proper form, and then rewound or separated into a finished product stack.

EMISSION CALCULATIONS

The facility is operating under an emission cap of 152 lbs/day of VOC and this new press will be limited to 30 lb/day VOC.

Operating schedule: 8 hrs/day, 5 days/wk, 50 wks/yr

AEIS & NSR Entry: 30 lbs VOC/day, 3.75 lbs/hr (30 day AVG = 0 since bubbled)

Toxics:

The ink contains 1.57% ammonium hydroxide which contains 26% ammonia.

$1.57\% \times 26\% = 0.408\%$

Density = $1.06 \times 8.345 = 8.85 \text{ lb/gal}$

Assuming 10 gal/day of ink usage

Emissions = $(8.85 \text{ lbs/gal}) (0.408\% \text{ NH}_3)(10 \text{ gal/day})(\text{day}/24 \text{ hrs})$

$\text{NH}_3 = 0.015 \text{ lb/hr}$, < 1.6 lb/hr screening level for acute exposure therefore compliance expected.



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RULE & REGULATIONS:

RULE 212(c)(1) *This section requires a public notice for all new and modified permit units that may emit air contaminants located within 1,000 feet from the outer boundary of a school.*

Since there are no schools within 1,000 feet of the facility, a public notice will not be required by this section.

RULE 212(c)(2) *This section requires a public notice for all new and modified facility which have on-site emission increases exceeding any of the daily maximums specified in subdivision (g).*

There is no emissions increase from this facility. The new press will operate under the existing facility limit of 152 lb/day VOC. Therefore, public notice will not be required.

RULE 212(c)(3) *This section requires a public notice for all new or modified permit units with increases in emissions of toxic air contaminants listed in Table I of Rule 1401 resulted in MICR greater than $1E^{-6}$ per permit unit or greater than $10E^{-6}$ per facility.*

There is a small quantity of toxic contaminants (non-carcinogenic) listed in Rule 1401 as amended 6/5/09 due to the inks used. However with Tier I screening, this project is in compliance with rule 1401 (see attached Toxic Evaluation). Therefore, public notice is not required.

RULE 212(g) *This section requires a public notice for all new and modified sources that have equipment emission increases exceeding any of the daily maximums as specified by Rule 212 (g).*

The emissions increase from the equipment will not exceed the daily maximum limits specified by Rule 212(g). Therefore, public notice will not be required by this section.

	<u>ROG</u>	<u>NO_x</u>	<u>PM₁₀</u>	<u>SO₂</u>	<u>CO</u>	<u>Pb</u>
Per Equipment	30	0	0	0	0	0
MAX MDC Limit (lb/day)	30	40	30	60	220	3
Required Public Notice	No	No	No	No	No	No



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RULE 401 Visible Emissions

Visible emissions are not expected with proper maintenance and operation of this equipment. The system shows no visible emissions complaints.

RULE 402 Nuisance

Operation of this equipment is not expected to create odors or nuisance with proper maintenance and operation. The system shows no nuisance complaints on file for this facility.

RULE 1130 Graphic Arts

This operation use low-VOC inks therefore complies with the rule.

<i>Material</i>	<i>Rule 1130 VOC Limit</i>	<i>Actual VOC Content</i>
Inks	300 g/l (2.5 lb/gal) of coating	0.01-0.54 lb/gal of coating
Flexo Coatings	300 g/l (2.5 lb/gal) of coating	0.01-0.54 lb/gal of coating

RULE 1171 Solvent Cleaning Operations

Cleanup material is water and zero VOC general cleaning solvent. Compliance is expected.

REGULATION XIII

Rule 1303(a), Best Available Control Technology (BACT)

BACT is met by use of low VOC inks (≤ 1.5 lb/gal less water and exempt compounds) and zero VOC materials for clean-up. Permit conditions will be imposed to ensure compliance.

Rule 1303 (b)(1), Modeling

Modeling is not required for VOC.

Rule 1304 (c)(1), Offsets Exemption

The new press will have an equipment cap of 30 lb/day VOC operating under the existing facility limit of 152 lbs VOC/day. Therefore, there is no emission increase from this facility, offsets are not required.



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RULE 1401

New Source Review of Toxic air Contaminants

There will be no carcinogenic compounds in the materials used in this equipment. The inks contain a small quantity of ammonia which is an acute and chronic TAC; HIA/HIC are below one. Compliance is expected.

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 on non-RECLAIM pollutants or hazardous air pollutants (HAP) from these permit revisions during the term of the permit are not greater than any of the following emission threshold levels:

<i>Air Contaminant</i>	<i>Daily Maximum (lbs/day)</i>
HAP	30
VOC	30
NO _x	40
PM ₁₀	30
SO _x	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 the 1st permit revision to the Title V renewal permit issued to this facility on January 20, 2008. The following table summarizes the cumulative emission increases resulting from all permit revisions since the Title V renewal permit was issued:

<i>Revision</i>	<i>HAP</i>	<i>VOC</i>	<i>NO_x</i>	<i>PM₁₀</i>	<i>SO_x</i>	<i>CO</i>
1 st Permit Revision: add a new bag manufacturing/flexographic press under A/N 511637.	0	0	0	0	0	0
Cumulative Total since Renewal (1-20-08)	0	0	0	0	0	0
Maximum Daily Limit	30	30	40	30	60	220



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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 raise any objections within the review period, a revised Title V permit will be issued to this facility.