

Louisville Metro Air Pollution Control District
850 Barret Ave., Louisville, Kentucky 40204
08 18 2015

Federally Enforceable District Origin Operating Permit
Statement of Basis

Company: Preferred Marketing Solutions
P.J. Food Services, Inc.

Plant Location: 2001 Papa John's Blvd., Louisville, Kentucky 40299
2002 Papa John's Blvd., Louisville, Kentucky 40299

Date Application Received:

Application #	Date Rec'd	Type
72411	07/10/2015	FEDOOP STAR Exempt Application
16719	01/06/2011	Responsible Official Change
72673	10/01/2008	Insignificant Activity List
72557	2/03/2006	Application for Construction Permit 34-06-C and 35-06-C
72558	6/26/2006	Application for Copier
72559	8/31/2006	Application for FEDOOP Renewal
72560	04/24/1998	Application for PJ Foods PM Equipment

Date of Draft Permit: xx xx 2015

District Engineer: Shannon Hosey

Permit No: O-1146-15-F

Plant ID: 1146 **SIC Code:** 2752

NAICS: 323110

Introduction:

This permit will be issued pursuant to District Regulation 2.17- *Federally Enforceable District Origin Operating Permits*. Its purpose is to limit the plant wide potential emission rates from this source to below major source threshold levels and to provide methods of determining continued compliance with all applicable requirements.

Jefferson County is classified as an attainment area for lead (Pb), nitrogen dioxide (NO₂), carbon monoxide (CO), 1 hr and 8 hr ozone (O₃), and particulate matter less than 10 microns (PM₁₀); and is a non-attainment area for the 1997 standard for particulate matter less than 2.5 microns (PM_{2.5}), unclassifiable for the 2012 standard for particulate matter less than 2.5 micron (PM_{2.5}) and partial non-attainment area for sulfur dioxide (SO₂).

Application Type/Permit Activity:

- Initial Issuance
- Permit Revision
 - Administrative
 - Minor
 - Significant
- Permit Renewal

Compliance Summary:

- Compliance certification signed
- Source is out of compliance
- Compliance schedule included
- Source is operating in compliance

I. Source Information

- 1. Product Description:** Lithographic printing operation and a pizza dough making operation for Papa John’s International, Inc.
- 2. Process Description:** Preferred Marketing Solutions is a lithographic printing operation that supports Papa John’s and P.J. Food Services, Inc. mass produces pizza dough for Papa John’s International, Inc.
- 3. Site Determination:** Preferred Marketing Solutions and P.J. Food Services, Inc. are considered one source since they are both wholly owned subsidiary of Papa John’s International, Inc.
- 4. Emission Unit Summary:**

Emission Unit	Equipment Description
U1	One (1) Heidelberg 6-color Offset Lithographic Sheetfed Press One (1) 36” Heatset Web Press, make King Press, with dryer One (1) Goss International 38” Heatset Web Lithography Printing Press, model Sunday 2000, 1854 fpm
U2	Two (2) Flour Silos (1A), Shick Tube-veyor Corp. Salt Silo (2A), Shick Tube-veyor Corp. Sugar Silo (3A), Shick Tube-veyor Corp. Three (3) Minor Ingredient Hoppers (4A), Shick Tube-veyor Corp. Mix Station (5A), Shick Tube-veyor Corp. Yeast Dump Station (6A), Shick Tube-veyor Corp.

- 5. Fugitive Sources:** None

6. Permit Revisions:

Revision No.	Permit No.	Issue Date	Public Notice Date	Change Type	Change Scope	Description
Initial	197-0-F	11/05/2001	07/01/2001	Initial	Entire Permit	Initial Permit Issuance
R1	197-0-F (R1)	12/21/2003	12/21/2003	Revision	Entire Permit	Incorporation of construction permit 340-02-C
N/A	O-1146-15-F		08/18/2015	Renewal	Entire Permit	Scheduled permit renewal; Incorporation of construction permits 34-06-C, 35-06-C & 137-10-C

7. Construction Permit History:

Permit No.	Issue Date	Description
34-06-C	06/30/2007	One (1) Goss International 38" Heatset Web Lithography Printing Press, model Sunday 2000, 1854 fpm
35-06-C	06/30/2007	One (1) Eco-Cool thermal oxidizer, model TL 120-1200, 3000 scfm
137-10-C	12/21/2010	Two (2) Flour Silos (1A), Salt Silo (2A), Sugar Silo (3A), Three (3) Minor Ingredient Hoppers (4A), Mix Station (5A) and Yeast Dump Station (6A)

8. Emission Summary:

Pollutant	District Calculated Actual Emissions (tn/yr) 2009 Data	Pollutant that triggered Major Source Status (based on PTE)
CO	0.374	No
NO _x	0.445	No
SO ₂	0.00267	No
PM ₁₀	0.7792	No
VOC	8.26	Yes
Total HAPs	0.1085	No

Pollutant	District Calculated Actual Emissions (tn/yr) 2009 Data	Pollutant that triggered Major Source Status (based on PTE)
Single HAP	0.0393	No

9. Applicable Requirements:

- PSD 40 CFR 60 SIP 40 CFR 63
 NSR 40 CFR 61 District-Origin Other

10. MACT Requirements: The source has no future MACT requirements.

11. Referenced Federal Regulations in Permit: None

II. Regulatory Analysis

1. Acid Rain Requirements: Preferred Marketing Solutions and P.J. Food Services, Inc. are not subject to the Acid Rain Program.

2. Stratospheric Ozone Protection Requirements: Title VI of the CAAA regulates ozone depleting substances and requires a phase-out of their use. This rule applies to any facility that manufactures, sells, distributes, or otherwise uses any of the listed chemicals Preferred Marketing Solutions and P.J. Food Services, Inc. does not manufacture, sell, or distribute any of the listed chemicals. The source’s use of listed chemicals is that in fire extinguishers, chillers, air conditioners and other HVAC equipment.

3. Prevention of Accidental Releases 112(r): Preferred Marketing Solutions and P.J. Food Services, Inc. does not manufacture, process, use, store, or otherwise handle one or more of the regulated substances listed in 40 CFR Part 68, Subpart F, and District Regulation 5.15, *Chemical Accident Prevention Provisions*, in a quantity in excess of the corresponding specified threshold amount.

4. 40 CFR Part 64 Applicability Determination: Preferred Marketing Solutions and P.J. Food Services, Inc. are not subject to 40 CFR Part 64 - *Compliance Assurance Monitoring for Major Stationary Sources*.

5. Basis of Regulation Applicability

a. Plant-wide

Preferred Marketing Solutions and P.J. Food Services, Inc. are a potential major source for the pollutant VOC. Regulation 2.17 – *Federally Enforceable District Origin Operating Permits* establishes requirements to limit the plant wide potential emission rates to below major source

threshold levels and to provide methods of determining continued compliance with all applicable requirements. The source requested limits of the criteria pollutant VOC < 25 tn/yr, and Total HAPs < 12.5 tn/yr and largest single HAP < 5.0 tn/yr, to be a FEDOOP STAR Exempt source as defined by Regulation 5.00, section 1.13.5. The source is not major for Greenhouse Gases.

Regulations 5.00 5.20, 5.21, and 5.23 (STAR Program) establishes requirements for environmental acceptability of toxic air contaminants (TACs) and the requirement to comply with all applicable emission standards. Preferred Marketing Solutions and P.J. Food Services, Inc. took the total plantwide limits of 25 tpy for criteria pollutants 12.5/5.0 tpy for Total HAPs and single HAP to be a FEDOOP STAR Exempt source

Regulation 2.17, section 5.2, requires monitoring and record keeping assuring ongoing compliance with the terms and conditions of the permit. The owner or operator shall maintain all the required records for a minimum of 5 years and make the records readily available to the district upon request.

Regulation 2.17, section 7.2, requires stationary sources for which a FEDOOP is issued shall submit an Annual Compliance Certification by April 15, of the following calendar year. In addition, as required by Regulation 2.17, section 5.2, the source shall submit an Annual Compliance Report to show compliance with the permit, by March 1 of the following calendar year. Compliance reports and compliance certifications shall be signed by a responsible official and shall include a certification statement per Regulation 2.17, section 3.5.

b. Emission Unit U1 – Printing Operation

i. Equipment:

P/PE	Capacity	Install Date	Applicable Regulation	Basis for Applicability
E1: 6-color Offset Lithographic Sheetfed Press	7800 sheets/hr	2002	7.25	Regulation 7.25 establishes VOC standards for affected facility constructed after June 13, 1979
E2: 36” Heatset Web Press	1264 fpm	2001		
E3: 38” Heatset Web Lithography Printing Press	1854 fpm	2006		

ii. **Control Devices:**

Control ID	Description	Pollutant Controlled
C1	One (1) Catalytic Oxidizer, make Meg-Tec, model Quantum 020-070	VOC
C2	One (1) Eco-Cool Thermal Oxidizer, model TL 120-1200, 3000 scfm	

iii. **Standards/Operating Limits**

1) **VOC**

- (a) As established in accordance with Regulation 7.25, section 3 and construction permit 340-02-C, the VOC emissions from E1 are limited.
- (b) As established in accordance with Regulation 7.25, section 3 and construction permit 177-00-C, the VOC emissions from E2 are limited.
- (c) As established in accordance with Regulation 7.25, section 3 and construction permit 34-06-C, the VOC emissions from E3 are limited.
- (d) As established in accordance with Regulation 7.25, section 3. The District has determined that emission point specific VOC limits and compliance with VOC raw material content requirements represent BACT.
- (e) Regulation 2.17, section 5.1, requires the source to operate and maintain control device (C1) catalytic oxidizer at all times (E2) heatset web press is in operation and operate and maintain control device (C2) thermal oxidizer at all times (E3) heatset web lithography press is in operation.

c. **Emission Unit U2 – Pizza Dough Making Operation for Papa John’s**

i. **Equipment:**

P/PE	Capacity	Install Date	Applicable Regulation	Basis for Applicability
E4: Two (2) Flour Silos (1A)	2406 cu ft each	1998	7.08	Regulation 7.08 establishes the requirements for PM

P/PE	Capacity	Install Date	Applicable Regulation	Basis for Applicability
E5: Salt Silo (2A)	1529 cu. Ft			emission from new processes that commences construction after 9/1/76.
E6: Sugar Silo (3A)	1529 cu. Ft			
E7: Three (3) Minor Ingredient Hoppers (4A)	35- 50 cu.ft			
E8: Mix Station (5A)	2100 lb			
E9: Yeast Dump Station (6A)	-			

ii. **Control Devices:**

Control ID	Description	Pollutant Controlled
C3	Bag Dust Collector (1B)	PM
C4	Bag Dust Collector (2B)	
C5	Bag Dust Collector (3B)	
C6	Three (3) Bag Dust Collectors (4B)	
C7	Bag Dust Collector (5B)	
C8	Cartridge Dust Collector (6B)	

iii. **Standards/Operating Limits**

1) **PM**

For emission points subject to Regulation 7.08 for PM, the PM emission standards are calculated per section 3.1.2 and 3.2. The equation to calculate the hourly PM emission limit $E = 3.59 * P^{0.62}$, where E is the allowable lb/hr PM emission limit and P is the process weight rate expressed in tons/hr. (A one-time demonstration shows the potential uncontrolled PM emissions cannot exceed the PM emission standards.)

2) **Opacity**

Regulation 7.08, section 3.1.1 establishes an opacity standard of less than 20%.

III. Other Requirements

- 1. Temporary Sources:** The source did not request to operate any temporary facilities.

2. **Short Term Activities:** The source did not report any short term activities.
3. **Emissions Trading:** N/A
4. **Operational Flexibility:** The source did not request any operation flexibility.
5. **Compliance History:**

There are no records of any violations of the terms of the present or prior construction or operating permits.

6. **Calculation Methodology or Other Approved Method:**

Off-set Lithography Sheet-fed Presses

E_{VOC}	=	$[(I_{VOC})(I_{Ret}) + (FS_{VOC}) + (BW_{VOC}) + (RW_{VOC}) + (C_{VOC}) + ((CS_{VOC})(R))]$
E_{VOC}	=	lb VOC Emissions
I_{VOC}	=	lb of sheet-fed ink used \times weight % VOC in each ink
I_{Ret}	=	0.050 (1 - Ink oil retention factor of 0.95 for non-heatset inks)
FS_{VOC}	=	Qty of fountain solution used (gallons) \times VOC content of fountain solution as applied (lb/gal)
BW_{VOC}	=	Qty of blanket wash used (gallons) \times VOC content of blanket wash as applied (lb/gal)
RW_{VOC}	=	Qty of roller wash used (gallons) \times VOC content of roller wash as applied (lb/gal)
C_{VOC}	=	Qty of coatings used (gallons) \times VOC content of coating as applied (lb/gal)
CS_{VOC}	=	Qty of each cleanup solvent used (gallons) \times VOC content as applied (lb/gal)

Off-set Lithography Heatset Presses

E_{VOC}	=	$[(I_{VOC})(I_{Ret})(C_{HI}) + (FS_{VOC})(C_{FS}) + (BW_{VOC})(C_{BW})] (1-CE) + [(0.05)(I_{VOC})(I_{Ret}) + [(0.30)(FS_{VOC})] + [(0.60)(BW_{VOC})] + Et_{VOC} + [(RC_{VOC})(R)]$
E_{VOC}	=	lb VOC Emissions
I_{VOC}	=	lb of heatset ink used \times weight % VOC in each ink
I_{Ret}	=	0.80 (1 - Ink oil retention factor of 0.20 for heatset inks)
C_{HI}	=	0.95 (Capture Efficiency for heatset inks)
FS_{VOC}	=	Qty of fountain solution used (gallons) \times VOC content of fountain solution as applied (lb/gal)
C_{FS}	=	0.70 (Capture Efficiency for fountain solution using alcohol substitutes)
BW_{VOC}	=	Qty of blanket wash used (gallons) \times VOC content of blanket wash as applied (lb/gal)
C_{BW}	=	0.40 (Capture Efficiency for blanket wash)
CE	=	Control Device Efficiency
Et_{VOC}	=	Qty of each used (gallons) \times VOC content as applied (lb/gal)
RC_{VOC}	=	Qty of roller cleaner used (gallons) \times VOC content as applied (lb/gal)

An "R" factor of 0.50 (50 percent VOC credit) may be used for solvents (vapor pressure \leq 5 mm Hg at 68°F) used to manually clean press components if the rags/wipes used to manually clean press components are stored in closed/sealed containers immediately after use and the company can document the quantity of solvent recovered.

The PM/PM₁₀ emissions from manufacturing dough are determined using the emission factors in AP42, Chapter 9.9.1.1 "Grain Handling" and AP42, Chapter 9.9.1-1 "Silo Filling".

7. Insignificant Activities

Preferred Marketing Solutions		
Equipment	Quantity	Regulation Basis
Combustion Sources < 10 MMBtu/hr natural gas room unit heaters	7; NOx = 2.43 tpy each VOC = 0.2326 tpy each	Regulation 1.02, Appendix A section 1.1
Kodak NexPress 2100 Copier	1; VOC = 0.01 tpy	Regulation 1.02, section 1.38.3

P.J. Food Services, Inc.		
Equipment	Quantity	Regulation Basis
Natural Gas Combustion Sources < 10 MMBtu/hr	2 @ 0.20 MMBtu/hr NOx = 0.086 tpy each VOC = 0.0047 tpy each 3 @ 0.36 MMBtu/hr NOx = 0.1524 tpy each VOC = 0.0084 tpy each 5 @ 0.30 MMBtu/hr NOx = 0.1284 tpy each VOC = 0.0071 tpy each	Regulation 1.02, Appendix A section 1.1

- 1) Insignificant activities identified in District Regulation 1.02, Appendix A, may be subject to size or production rate disclosure requirements.
- 2) Insignificant activities identified in District Regulation 1.02, Appendix A shall comply with generally applicable requirements.
- 3) The owner or operator shall annually submit an updated list of insignificant activities that occurred during the preceding year, with the compliance certification due April 15th.
- 4) Emissions from Insignificant Activities shall be reported in conjunction with the reporting of annual emissions of the facility as required by the District.
- 5) The owner or operator may elect to monitor actual throughputs for each of the insignificant activities and calculate actual annual emissions, or use Potential to Emit (PTE) as the annual emissions for each piece of equipment.
- 6) The District has determined that no monitoring, record keeping, or reporting requirements apply to the insignificant activities listed, except for the equipment that has an applicable regulation and permitted under an insignificant activity (IA) unit.