



ENVIRONMENTAL PROTECTION DIVISION

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PERMITTEE

Bimbo Bakeries USA, Inc.
850 Mid Florida Drive
Orlando, FL 32827

Air Permit No. 0951231-009-AC
Permit Expires: June 30, 2017
Major Source Air Construction Permit

Authorized Representative:
Gerald Erickson, Plant Manager

Bimbo Bakeries
Increase VOC Limit

PROJECT

This is the final air construction permit, which authorizes an increase in the VOC emissions limit that changes the facility classification from synthetic non-Title V to Title V. The proposed work will be conducted at the existing Bimbo Bakeries, which is a commercial bakery categorized under Standard Industrial Classification No. 2051 (Bread and other Bakery Products, except Cookies and Crackers). The existing facility is located in Orange County at 850 Mid Florida Drive in Orlando, Florida. The UTM coordinates are Zone 17, 464.04 km East and 3143.06 km North.

This final permit is organized into the following sections: Section 1 (General Information); Section 2 (Administrative Requirements); Section 3 (Emissions Unit Specific Conditions); and Section 4 (Appendices). Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of Section 4 of this permit. As noted in the Final Determination provided with this final permit, only minor changes and clarifications were made to the draft permit.

STATEMENT OF BASIS

This air pollution construction permit is issued under the provisions of: Chapter 403 of the Florida Statutes (F.S.) and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to conduct the proposed work in accordance with the conditions of this permit. This project is subject to the general preconstruction review requirements in Rule 62-212.300, F.A.C. and is not subject to the preconstruction review requirements for major stationary sources in Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

Upon issuance of this final permit, any party to this order has the right to seek judicial review of it under Section 120.68 of the Florida Statutes by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the Office of the Orange County Attorney, 201 South Rosalind Avenue, Third Floor, Orlando, Florida 32801 (Telephone 407-836-7320) and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within 30 days after this order is filed with the clerk of the EPD.

Executed in Orange County, Florida

(DRAFT)

Reneé H. Parker
Environmental Program Supervisor
Air Quality Management
Environmental Program Supervisor
Orange County Environmental Protection
Division

(Date)

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Air Permit package was sent by electronic mail, or a link to these documents made available electronically on a publicly accessible server, with received receipt requested before the close of business on the date indicated below to the following persons.

Gerald Erickson, Bimbo Bakeries USA, Inc., gerickson@bbumail.com
Martin Smith, Bimbo Bakeries USA, Inc., msmith@bbumail.com
David Mace, P.E. Entech Engineering, dmace@entecheng.com
Tom Lubozynski, P.E., Florida DEP, tom.lubozynski@dep.state.fl.us
Reneé H. Parker, OCEPD, renee.parker@ocfl.net

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date,
pursuant to Section 120.52(7), Florida Statutes, with the
designated agency clerk, receipt of which is hereby
acknowledged.

(DRAFT)

(Date)

SECTION 1. GENERAL INFORMATION

EXISTING FACILITY DESCRIPTION

Bimbo Bakeries USA, Inc. is a bakery facility (Standard Industrial Classification Number 2051 for Bread and other Bakery Products, except Cookies and Crackers). The facility is located in Orange County at 850 Mid Florida Drive in Orlando, Florida.

This facility produces bread products using yeast. The bread baking processes using yeast produce VOC emissions as described in AP-42 Section 9.9.6, Bread Baking. The VOC emissions from the baking processes are due to fermentation of yeast that produces primarily ethanol. These VOC emissions are separate and distinct from the VOC emissions due to incomplete combustion in ovens and engines and the printing and other miscellaneous VOC sources at the facility. The bakery facility emissions have been separated into bread baking process VOC emissions and VOC emissions from combustion and other sources at the facility. The VOC emissions from the bread baking process remain regulated in EU 003. The equipment emitting VOC and other emissions from combustion and other sources are exempt from air permitting as long as they meet the exemption criteria in Rule 62-210.300(3)(a), F.A.C., as listed below.

The existing permit (0951231-007-AO) limits baking process VOC emissions to 90 tons per consecutive 12 months, and the permit limit for yeast bread production is 52,500 tons per consecutive 12 months. These limits provide reasonable assurance that facility-wide VOC emissions (including exempt sources) shall remain below the Title V threshold of 100 tons of VOC emitted per consecutive 12 months.

This facility has operated as a synthetic non-Title V minor facility since issuance of 0951231-007-AO on November 1, 2012.

The existing facility consists of the following emissions units.

Facility ID No. 0951231	
ID No.	Emission Unit Description
003	<u>Bread Baking Processes Using Yeast</u> The bread baking processes using yeast produce VOC emissions as described in AP-42 section 9.9.6, Bread Baking. The VOC emissions from the baking processes are due to fermentation of yeast that produces primarily ethanol. These VOC emissions are separate from the VOC emissions resulting from the combustion of natural gas and diesel fuel, from printing, and from miscellaneous sources.
004	<u>Flour Silos</u> The facility has three flour storage silos, each with an integral filter bag (bin vent filter) that vents to the atmosphere.

Exempt equipment is described below.

1. Natural gas-fired ovens, boilers, and water heaters that meet the criteria for a categorical exemption in Rule 62-210.300(3)(a)34., F.A.C., for fossil fuel steam generators, hot water generators, and other external combustion heating units, are exempt from air permitting if they meet those exemption criteria. The facility must keep records to verify that the equipment meets those exemption criteria.
2. A stationary reciprocating internal combustion engine that meets the categorical exemption listed in Rule 62-210.300(3)(a)35., F.A.C.
3. Surface coating operations for printing date codes on packaging qualify for a categorical exemption under Rule 62-210.300(3)(a)27., F.A.C.
4. Degreasing units (parts washers) that meet the criteria for a categorical exemption in Rule 62-210.300(3)(a)23., F.A.C., are exempted from air permitting if they use heavier-than-air vapors exclusively, provided that such units do not use any substance containing any hazardous air pollutant (HAP).
5. Brazing, soldering, and welding equipment exempted from air permitting by Rule 62-210.300(3)(a)13., F.A.C.

PROJECT DESCRIPTION

The permittee has requested an increase in the allowable VOC emissions, from below the Title V threshold (currently 90.0 tons of VOC emitted per 12-month period) to above the Title V threshold. The application dated July 6, 2016, indicates a maximum potential to emit for VOC of 219.25 tons per consecutive 12-month period, calculated using the AP-42 Section 9.9.6 emission factors for yeast bread production.

This project will reactivate EU 002 for the emergency generator subject to 40 CFR Part 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (RICE). The generator is a Caterpillar, Model 3516B TA emergency generator fired by natural gas and diesel fuel. This is a compression ignition RICE and the rating is 2000 kW. This generator was listed in EU 002 in permit 0951231-005-AV, but it was later inactivated for permits 0951231-006-AC and 0951231-007-AO that considered the engine exempt at a non-Title V source. For a Title V permit, RICE are put into a regulated emission unit. EU 002 has been reactivated in FDEP's ARMS database for the Title V permit projects.

The activities contained in EU 003 will remain unchanged, though authorized to emit VOC at a higher rate. The permit increases the VOC emission rate limit of 90 tons of VOC per consecutive 12-month period of construction permit 0951231-006-AC. The yeast bread production limit of 52,500 tons per consecutive 12-month period remains unchanged. The increase in the VOC emission limit will result in the facility becoming a Title V major source of air pollution. The facility requested a VOC emission rate limit in the application of 225 tons of VOC per year (TPY). This provides EPD with reasonable assurance that the facility will not exceed the VOC PSD threshold of 250 TPY VOC. If the facility intends to increase production above the 52,500 tons of yeast bread products per consecutive 12-month period, the facility shall apply for a construction permit.

The facility includes flour silos with bin vent filters. These had been considered regulated emission units in permits 0951231-006-AC and 0951231-007-AO, requiring visible emission compliance tests of the filters. However, recent FDEP guidance is to exempt, or consider insignificant flour silos with bin vent filters. Making these silos insignificant eliminates visible emission testing requirements. The silos were the only equipment that required testing for the synthetic minor source permit 0951231-007-AO, so eliminating the VE testing requirement allows EPD to omit Appendix D, Common Testing Requirements.

MODIFIED FACILITY DESCRIPTION

Bimbo Bakeries USA, Inc. is a bakery facility (Standard Industrial Classification Number 2051 for Bread and other Bakery Products, except Cookies and Crackers). The facility is located in Orange County at 850 Mid Florida Drive in Orlando, Florida.

This facility produces bread products using yeast. The bread baking processes using yeast produce VOC emissions as described in AP-42 Section 9.9.6, Bread Baking. The VOC emissions from the baking processes are due to fermentation of yeast that produces primarily ethanol. These VOC emissions are separate and distinct from the VOC emissions due to combustion. The VOC emissions from the bread baking process remain regulated in EU 003. As this facility becomes a Title V regulated facility, the emergency RICE engine will become a distinct emission unit, EU 002. Other equipment at the facility that has the potential to emit air pollutants and was formerly exempt from air permitting will now be identified as insignificant sources and itemized in Appendix I of permit 0951231-010-AV.

This facility consists of the following emission units.

SECTION 1. GENERAL INFORMATION

EU No.	Brief Description			
002	<u>Emergency Electricity Generator (IC engine powered):</u> EU 002 is an emergency generator with a dual fuel engine. This compression ignition (CI) engine burns natural gas and diesel fuel. This RICE is subject to NESHAP 40 CFR Part 63 Subpart ZZZZ and 40 CFR Part 63 Subpart A. Emergency generator details are given below.			
	Location	Manufacturer	Model Number	Capacity, kW
	West side of building	Caterpillar	3516B TA	2000
003	<u>Bread Baking Processes Using Yeast</u> The bread baking processes using yeast produce VOC emissions as described in AP-42 section 9.9.6., Bread Baking. The VOC emissions from the baking processes are due to fermentation of yeast that produces primarily ethanol. These VOC emissions are separate from the VOC emissions due to insignificant sources.			

FACILITY REGULATORY CLASSIFICATION

- The facility is not a major source of hazardous air pollutants (HAP).
- The facility is a Title V source of VOC.
- The facility does not operate units subject to the acid rain provisions of the Clean Air Act (CAA).
- The facility is a Title V major source of air pollution in accordance with Chapter 62-213, F.A.C.
- The facility is not a major stationary source in accordance with Rule 62-212.400(PSD), F.A.C.

SECTION 2. ADMINISTRATIVE REQUIREMENTS

1. Permitting and Compliance Authority: The permitting and compliance authority for this project is the Orange County Environmental Protection Division (EPD). All documents related to applications for permits to operate emissions units and compliance activities such as reports, tests, and notifications shall be submitted to EPD. The EPD mailing address is 3165 McCrory Place, Suite 200, Orlando, FL 32803. The phone number is 407-836-1400 and the email address is AirPermitsOrangeCounty@ocfl.net.
2. Appendices: The following Appendices are attached as a part of this permit: Appendix A (Citation Formats and Glossary of Common Terms); Appendix B (General Conditions); and Appendix C (Common Conditions).
3. Applicable Regulations, Forms and Application Procedures: Unless otherwise specified in this permit, the construction and operation of the subject emissions units shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403, F.S.; and Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296 and 62-297, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations.
4. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the EPD may require the permittee to conform to new or additional conditions. The EPD shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the EPD may grant additional time. [Rule 62-4.080, F.A.C.]
5. Modifications: The permittee shall notify the Compliance Authority upon commencement of construction. No new emissions unit shall be constructed and no existing emissions unit shall be modified without obtaining an air construction permit from the EPD. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]
6. Construction and Expiration: The expiration date shown on the first page of this permit provides time to complete the physical construction activities authorized by this permit, complete any necessary compliance testing, and obtain an operation permit. Notwithstanding this expiration date, all specific emissions limitations and operating requirements established by this permit shall remain in effect until the facility or emissions unit is permanently shut down. For good cause, the permittee may request that a permit be extended. Pursuant to Rule 62-4.080(3), F.A.C., such a request shall be submitted to the Permitting Authority in writing before the permit expires. [Rules 62-4.070(3) & (4), 62-4.080 & 62-210.300(1), F.A.C.]
7. Source Obligation:
 - a. At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.
 - b. At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by exceeding its projected actual emissions, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.[Rule 62-212.400(12), F.A.C.]
8. Annual Operating Report (AOR): The information required by the Annual Operating Report for Air Pollutant Emitting Facility (DEP Form No. 62-210.900(5)) shall be submitted by April 1 of each year, for the previous calendar year, to EPD. All Title V and synthetic non-Title V sources shall submit a completed DEP Form 62-210.900(5) unless the annual operating report is submitted using the DEP's electronic annual operating report

SECTION 2. ADMINISTRATIVE REQUIREMENTS

software. Emissions shall be computed in accordance with the provisions of subsection 62-210.370(2), F.A.C. [Rule 62-210.370(3), F.A.C.]

{Permitting Note: Resources to help you complete your AOR are available on the electronic AOR (EAOR) website at: <http://www.dep.state.fl.us/air/emission/eaor>. If you have questions or need assistance after reviewing the information posted on the EAOR website, please contact the Department by phone at (850) 717-9000 or email at eaor@dep.state.fl.us.}

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SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. EU 002: Emergency Electricity Generator Subject to ZZZZ

This section of the permit addresses the following emissions unit.

EU No.	Emission Unit Description
002	Emergency Electricity Generator (IC engine powered)

{Permitting Note: No new construction is authorized by this permit.}

REQUIREMENTS FOR SUBPART ZZZZ ENGINE

- A.1. Fuel Requirements, Diesel Engines:** Fuel for all diesel engines shall contain no more than 15 ppm sulfur (Ultra Low Sulfur Diesel or ULSD fuel) and have a minimum cetane index of 40 or a maximum aromatic content of 35% by volume. [40 CFR Part 63 Subpart ZZZZ Section 63.6604 and 40 CFR Part 80 Subpart I, Sections 80.510(a) and (b)]
- A.2. Fuel Sulfur Content Records:** The permittee shall maintain records to document the liquid fuel sulfur content, by weight, for each shipment of diesel fuel. [Rules 62-4.070(3) and 62-210.300(3)(c)2.c., F.A.C.]
- A.3. Hour Meter:** Emergency engines must have a non-resettable hour meter installed, if one is not already installed. [Rule 62-204.800(11)(b)82., F.A.C.; 40 CFR Part 63, Subpart ZZZZ, Section 63.6625(f)]
- A.4. General Compliance Requirements:** The permittee shall operate the engines in EU 002 to be in compliance with the applicable operating limitations of Subpart ZZZZ at all times. At all times the permittee shall operate and maintain any engine in a manner consistent with safety and good air pollution control practices. Determination of whether such operation and maintenance procedures are being used will be based on information available to the EPD, which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [Rule 62-204.800(11)(b)82., F.A.C.; 40 CFR Part 63 Subpart ZZZZ, Section 63.6605]
- A.5. Subpart ZZZZ Continuous Compliance for Emergency RICE in EU 002:** The permittee shall operate emergency stationary reciprocating internal combustion engines (RICE) according to the requirements in subparagraphs a., b., and c. In order for the engine to be considered an emergency stationary RICE under Subpart ZZZZ, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in subparagraphs a., b., and c. is prohibited. If the engine is not operated according to the requirements in subparagraphs a., b., and c., the engine will not be considered an emergency engine under the subpart and must meet all subpart requirements for non-emergency engines.
- There is no time limit on the use of emergency stationary RICE in emergency situations.
 - The permittee may operate emergency stationary RICE for either of the following purposes of this subparagraph for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by subparagraph c. counts as part of the 100 hours per calendar year.
 - Subpart ZZZZ allows, and EPD recommends, maintenance checks and readiness testing of emergency generators. Maintenance checks and readiness testing is limited to 100 hours per year. The permittee may petition the EPD for approval of additional hours to be used for maintenance checks and readiness testing.
 - The permittee may operate emergency stationary RICE for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.
 - The permittee may operate emergency stationary RICE up to 50 hours per year in non-emergency situations, but those 50 hours are counted toward the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.
- [Rule 62-204.800(11)(b)82., F.A.C.; 40 CFR Part 63, Subpart ZZZZ, Section 63.6640(f)]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. EU 002: Emergency Electricity Generator Subject to ZZZZ

A.6. Subpart ZZZZ Operating Requirements: The permittee shall minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [Rule 62-204.800(11)(b)82., F.A.C.; 40 CFR Part 63 Subpart ZZZZ Section 62.6625(h)]

A.7. Subpart ZZZZ Operating Requirements: The permittee shall comply with the requirements in the following table for engines in EU 002.

For each . . .	The permittee shall meet the following requirements.
Emergency CI stationary RICE	a. Change oil and filter every 500 hours of operation or annually, whichever comes first;
	b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first;
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

[Rule 62-204.800(11)(b)82., F.A.C.; 40 CFR Part 63 Subpart ZZZZ, Sections 63.6603 and 63.6640, and Table 2d]

A.8. Subpart ZZZZ Operating Requirements: The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement listed on the table above. The oil analysis must be performed at the same frequency specified for changing the oil. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the permittee is not required to change the oil. If any of these limits are exceeded, the permittee shall change the oil within two days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the permittee shall change the oil within two days or before commencing operation, whichever is later. The permittee shall keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the dates of oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [Rule 62-204.800(11)(b)82., F.A.C.; 40 CFR Part 63 Subpart ZZZZ Section 60.6625(i)]

A.9. Subpart ZZZZ Continuous Compliance: The permittee shall continuously comply with the operating limitations and work or management practices required in the following table for engines in EU 002.

For each . . .	Complying with the requirement to . . .	The permittee shall demonstrate continuous compliance by . . .
Existing emergency stationary RICE located at an area source of HAP	a. Work or management practices	i. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or ii. Develop and follow a facility maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions

[Rule 62-204.800(11)(b)82., F.A.C.; 40 CFR Part 63 Subpart ZZZZ Section 63.6640 and Table 6]

A.10. Subpart ZZZZ Recordkeeping Log: In order to demonstrate compliance with conditions of this subsection of the permit, the permittee shall maintain a log. The log shall be completed with 30 days of the end of the month reported, and shall be retained on file at the facility for at least five years from the date the data is recorded. The log shall contain the following for each month:

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. EU 002: Emergency Electricity Generator Subject to ZZZZ

- a. Designation of the month and year of operation for which records are being tabulated;
- b. Monthly and consecutive 12-month totals of hours of operation of each emergency engine in EU 002; make a notation whether the operating hours are emergency or non-emergency;
- c. Sulfur content of all diesel fuels and cetane index or aromatic content of diesel fuel;
- d. A copy of each notification and report submitted to comply with Subpart ZZZZ for each engine in EU 002, including all documentation supporting an Initial Notification or Notification of Compliance Status submitted, according to the requirement in 40 CFR Part 63 Subpart A, Section 63.10(b)(2)(xiv);
- e. Records of the occurrence and duration of each malfunction for engines in EU 002;
- f. Records of all required maintenance performed on the engines in EU 002;
- g. Records of actions taken during periods of malfunction to minimize emissions in accordance with specific condition A.5, including corrective actions to restore malfunctioning engines;
- h. Records required in specific condition A.9 to show continuous compliance with each applicable operating limitation.

[Rule 62-4.070(3), F.A.C.; 40 CFR Part 80 Subpart I, Section 80.510(b) and 40 CFR Part 63 Subpart ZZZZ, Sections 63.6655(a), (d), (e), and (f)]

Note: A consecutive 12-month total is equal to the total for the month in question plus the totals for the eleven months previous to the month in question. A consecutive 12-month total treats each month of the year as the end of a 12-month period. A 12-month total is not a year-to-date total. Facilities that have not been operating for 12 months should retain 12-month totals using whatever number of months of data are available until such a time as a consecutive 12-month total can be maintained each month. [Rule 62-297.310(8), F.A.C.]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

B. EU 003: Bread Baking Processes Using Yeast

This section of the permit addresses the following emissions unit.

EU No.	Emission Unit Description
003	Bread Baking Processes Using Yeast

{Permitting Note: No new construction is authorized by this permit.}

PERFORMANCE RESTRICTIONS

- B.1. Permitted Capacity:** The facility-wide yeast bread production is limited to 52,500 tons of bread using yeast per consecutive 12-month period. [Rule 62-210.200(PTE), F.A.C.; Permit No. 0951231-006-AC]
- B.2. Hours of Operation:** The facility is permitted to operate continuously. [Rule 62-210.200(PTE), F.A.C., Permit 0951231-006-AC]

EMISSIONS STANDARDS

- B.3. Emissions Standards:** VOC emissions from the bread baking processes shall not exceed 225.0 tons per consecutive 12-month period. [Rule 62-210.200(PTE), F.A.C.; Application No. 0951231-009-AC]
- B.4. VOC Emission Factors:** VOC emission factors for the bread production process shall be determined from AP-42 section 9.9.6. using the following equation. Emission factors will be determined for each type of bread produced using yeast.

$$\text{VOC E. F.} = 0.95Y_i + 0.195t_i - 0.51S - 0.86t_s + 1.90$$

where:

- VOC E. F. = pounds VOC per ton of baked bread
 Y_i = initial baker's percent of yeast
 t_i = total yeast action time in hours
 S = final (spike) baker's percent of yeast
 t_s = spiking time in hours

[Rules 62-4.070(3) and 62-210.200(PTE), F.A.C.; Permit 0951231-006-AC]

RECORDS AND REPORTS

- B.5. Recordkeeping log:** In order to demonstrate compliance with specific conditions **B.1** and **B.3**, the permittee shall maintain a log. The log shall be completed within 30 days of the end of the month reported, and shall be retained on file at the facility for at least five years from the date the data is recorded. The log shall contain the following for each month:
- Designation of month and year of operation for which records are being tabulated.
 - Monthly totals of each type of bread produced using yeast, in tons.
 - Emissions of VOC from the bread production process, using the emission factors for each bread type as determined in specific condition **B.4**, in tons per month.
 - Monthly and consecutive 12-month totals for all bread produced using yeast, in tons.
 - Emissions of VOC from the bread production process for all bread produced in tons per month and tons per consecutive 12-month period.

[Rule 62-4.070(3), F.A.C., Permit 0951231-006-AC]

Note: A consecutive 12-month total is equal to the total for the month in question plus the totals for the eleven months previous to the month in question. A consecutive 12-month total treats each month of the year as the end of a 12-month period. A 12-month total is not a year-to-date total. Facilities that have not been operating for 12 months should retain 12-month totals using whatever number of months of data are available until such a time as a consecutive 12-month total can be maintained each month. [Rule 62-297.310(8), F.A.C.]

SECTION 4. APPENDIX A
Citation Formats and Glossary of Common Terms

CITATION FORMATS

The following illustrate the formats used in the permit to identify applicable requirements from permits and regulations.

Old Permit Numbers

Example: Permit No. AC50-123456 or Permit No. AO50-123456

Where: “AC” identifies the permit as an Air Construction Permit
“AO” identifies the permit as an Air Operation Permit
“123456” identifies the specific permit project number

New Permit Numbers

Example: Permit Nos. 099-2222-001-AC, 099-2222-001-AF, 099-2222-001-AO, or 099-2222-001-AV

Where: “099” represents the specific county ID number in which the project is located
“2222” represents the specific facility ID number for that county
“001” identifies the specific permit project number
“AC” identifies the permit as an air construction permit
“AF” identifies the permit as a minor source federally enforceable state operation permit
“AO” identifies the permit as a minor source air operation permit
“AV” identifies the permit as a major Title V air operation permit

PSD Permit Numbers

Example: Permit No. PSD-FL-317

Where: “PSD” means issued pursuant to the preconstruction review requirements of the Prevention of Significant Deterioration of Air Quality
“FL” means that the permit was issued by the State of Florida
“317” identifies the specific permit project number

Florida Administrative Code (F.A.C.)

Example: [Rule 62-213.205, F.A.C.]

Means: Title 62, Chapter 213, Rule 205 of the Florida Administrative Code

Code of Federal Regulations (CFR)

Example: [40 CFR 60.7]

Means: Title 40, Part 60, Section 7

GLOSSARY OF COMMON TERMS

° F: degrees Fahrenheit

µg: microgram

AAQS: Ambient Air Quality Standard

acf: actual cubic feet

acfm: actual cubic feet per minute

ARMS: Air Resource Management System
(Department’s database)

BACT: best available control technology

bhp: brake horsepower

Btu: British thermal units

CAM: compliance assurance monitoring

CEMS: continuous emissions monitoring system

cfm: cubic feet per minute

CFR: Code of Federal Regulations

CAA: Clean Air Act

CMS: continuous monitoring system

CI: compression ignition

CO: carbon monoxide

SECTION 4. APPENDIX A

Citation Formats and Glossary of Common Terms

CO₂ : carbon dioxide	NO_x : nitrogen oxides
COMS : continuous opacity monitoring system	NSPS : New Source Performance Standards
DARM : Division of Air Resource Management	O&M : operation and maintenance
DEP : Department of Environmental Protection	O₂ : oxygen
Department : Department of Environmental Protection	Pb : lead
dscf : dry standard cubic feet	PM : particulate matter
dscfm : dry standard cubic feet per minute	PM₁₀ : particulate matter with a mean aerodynamic diameter of 10 microns or less
EF : emission factor	ppm : parts per million
EPA : Environmental Protection Agency	ppmv : parts per million by volume
EPD : Orange County Environmental Protection Division	ppmvd : parts per million by volume, dry basis
ESP : electrostatic precipitator (control system for reducing particulate matter)	QA : quality assurance
EU : emissions unit	QC : quality control
F : fluoride	PSD : prevention of significant deterioration
F.A.C. : Florida Administrative Code	psi : pounds per square inch
F.A.W. : Florida Administrative Weekly	PTE : potential to emit
F.D. : forced draft	RACT : reasonably available control technology
F.S. : Florida Statutes	RATA : relative accuracy test audit
FGD : flue gas desulfurization	RBLC : EPA's RACT/BACT/LAER Clearinghouse
FGR : flue gas recirculation	RICE : reciprocating internal combustion engine
ft² : square feet	SAM : sulfuric acid mist
ft³ : cubic feet	scf : standard cubic feet
gpm : gallons per minute	scfm : standard cubic feet per minute
gr : grains	SIC : standard industrial classification code
HAP : hazardous air pollutant	SIP : State Implementation Plan
Hg : mercury	SNCR : selective non-catalytic reduction (control system used for reducing emissions of nitrogen oxides)
I.D. : induced draft	SO₂ : sulfur dioxide
ID : identification	TPD : tons/day
kPa : kilopascals	TPH : tons per hour
lb : pound	TPY : tons per year
MACT : maximum achievable control technology	TRS : total reduced sulfur
MMBtu : million British thermal units	UTM : Universal Transverse Mercator coordinate system
MSDS : material safety data sheets	VE : visible emissions
MW : megawatt	VOC : volatile organic compounds
NESHAP : National Emissions Standards for Hazardous Air Pollutants	

SECTION 4. APPENDIX B

General Conditions

The permittee shall comply with the following general conditions from Rule 62-4.160, F.A.C.

1. The terms, conditions, requirements, limitations and restrictions set forth in this permit, are “permit conditions” and are binding and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the EPD will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the EPD.
3. As provided in subsections 403.987(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other department or EPD permit that may be required for other aspects of the total project which are not addressed in this permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and EPD rules, unless specifically authorized by an order from the EPD.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by EPD rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by EPD rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized EPD personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:
 - a. Have access to and copy any records that must be kept under conditions of the permit;
 - b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
 - c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or EPD rules. Reasonable time may depend on the nature of the concern being investigated.
8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the EPD with the following information:
 - a. A description of and cause of noncompliance; and
 - b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the EPD for penalties or for revocation of this permit.
9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the EPD may be used by the EPD as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or EPD rules, except where such use is prescribed by Sections 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
10. The permittee agrees to comply with changes in EPD rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or EPD rules. A reasonable time for compliance with a new or amended surface water quality standard, other than those standards addressed in Rule

SECTION 4. APPENDIX B
General Conditions

62-302.500, F.A.C., shall include a reasonable time to obtain or be denied a mixing zone for the new or amended standard.

11. This permit is transferable only upon EPD approval in accordance with Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the EPD.
12. This permit or a copy thereof shall be kept at the work site of the permitted activity.
13. This permit also constitutes:
 - a. Determination of Best Available Control Technology (not applicable);
 - b. Determination of Prevention of Significant Deterioration (not applicable); and
 - c. Compliance with New Source Performance Standards (not applicable).
14. The permittee shall comply with the following:
 - a. Upon request, the permittee shall furnish all records and plans required under EPD rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the EPD.
 - b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by EPD rule.
 - c. Records of monitoring information shall include:
 - (1) The date, exact place, and time of sampling or measurements;
 - (2) The person responsible for performing the sampling or measurements;
 - (3) The dates analyses were performed;
 - (4) The person responsible for performing the analyses;
 - (5) The analytical techniques or methods used;
 - (6) The results of such analyses.
15. When requested by the EPD, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the EPD, such facts or information shall be corrected promptly.

SECTION 4. APPENDIX C
Common Conditions

Unless otherwise specified in the permit, the following conditions apply to all emissions units and activities at the facility.

EMISSIONS AND CONTROLS

1. **Plant Operation - Problems:** If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the permittee shall notify each Compliance Authority as soon as possible, but at least within one working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; steps being taken to correct the problem and prevent future recurrence; and, where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit or the regulations. [Rule 62-4.130, F.A.C.]
2. **Circumvention:** The permittee shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Rule 62-210.650, F.A.C.]
3. **Excess Emissions Allowed:** Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed 2 hours in any 24-hour period unless specifically authorized by the EPD for longer duration. Pursuant to Rule 62-210.700(5), F.A.C., the permit subsection may specify more or less stringent requirements for periods of excess emissions. Rule 62-210-700(Excess Emissions), F.A.C., cannot vary or supersede any federal NSPS or NESHAP provision. [Rule 62-210.700(1), F.A.C.]
4. **Excess Emissions Prohibited:** Excess emissions caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]
5. **Excess Emissions - Notification:** In case of excess emissions resulting from malfunctions, the permittee shall notify the Compliance Authority in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the EPD. [Rule 62-210.700(6), F.A.C.]
6. **VOC or OS Emissions:** No person shall store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds (VOC) or organic solvents (OS) without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the EPD. [Rule 62-296.320(1), F.A.C.]
7. **Objectionable Odor Prohibited:** No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An "objectionable odor" means any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [Rules 62-296.320(2) and 62-210.200(Definitions), F.A.C.]
8. **General Visible Emissions:** No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20% opacity. This regulation does not impose a specific testing requirement. [Rule 62-296.320(4)(b)1, F.A.C.]
9. **Unconfined Particulate Emissions:** During the construction period, unconfined particulate matter emissions shall be minimized by dust suppressing techniques such as covering and/or application of water or chemicals to the affected areas, as necessary. [Rule 62-296.320(4)(c), F.A.C.]

RECORDS AND REPORTS

10. **Records Retention:** All measurements, records, and other data required by this permit shall be documented in a permanent, legible format and retained for at least 5 years following the date on which such measurements, records, or data are recorded. Records shall be made available to the EPD upon request. [Rule 62-213.440(1)(b)2, F.A.C.]
11. **Emissions Computation and Reporting:**
 - a. *Applicability.* This rule sets forth required methodologies to be used by the owner or operator of a facility for computing actual emissions, baseline actual emissions, and net emissions increase, as defined at Rule 62-210.200, F.A.C., and for computing emissions for purposes of the reporting requirements of subsection 62-210.370(3) and paragraph 62-212.300(1)(e), F.A.C., or of any permit condition that requires emissions be computed in accordance with this rule. This rule is not intended to establish methodologies for determining compliance with the emission limitations of any air permit. [Rule 62-210.370(1), F.A.C.]

SECTION 4. APPENDIX C
Common Conditions

- b. *Computation of Emissions.* For any of the purposes set forth in subsection 62-210.370(1), F.A.C., the owner or operator of a facility shall compute emissions in accordance with the requirements set forth in this subsection.
- (1) **Basic Approach.** The owner or operator shall employ, on a pollutant-specific basis, the most accurate of the approaches set forth below to compute the emissions of a pollutant from an emissions unit; provided, however, that nothing in this rule shall be construed to require installation and operation of any continuous emissions monitoring system (CEMS), continuous parameter monitoring system (CPMS), or predictive emissions monitoring system (PEMS) not otherwise required by rule or permit, nor shall anything in this rule be construed to require performance of any stack testing not otherwise required by rule or permit.
- (a) If the emissions unit is equipped with a CEMS meeting the requirements of paragraph 62-210.370(2)(b), F.A.C., the owner or operator shall use such CEMS to compute the emissions of the pollutant, unless the owner or operator demonstrates to the EPD that an alternative approach is more accurate because the CEMS represents still-emerging technology.
- (b) If a CEMS is not available or does not meet the requirements of paragraph 62-210.370(2)(b), F.A.C, but emissions of the pollutant can be computed pursuant to the mass balance methodology of paragraph 62-210.370(2)(c), F.A.C., the owner or operator shall use such methodology, unless the owner or operator demonstrates to the EPD that an alternative approach is more accurate.
- (c) If a CEMS is not available or does not meet the requirements of paragraph 62-210.370(2)(b), F.A.C., and emissions cannot be computed pursuant to the mass balance methodology, the owner or operator shall use an emission factor meeting the requirements of paragraph 62-210.370(2)(d), F.A.C., unless the owner or operator demonstrates to the EPD that an alternative approach is more accurate.
- (2) **Continuous Emissions Monitoring System (CEMS).**
- (a) An owner or operator may use a CEMS to compute emissions of a pollutant for purposes of this rule provided:
- 1) The CEMS complies with the applicable certification and quality assurance requirements of 40 CFR Part 60, Appendices B and F, or, for an acid rain unit, the certification and quality assurance requirements of 40 CFR Part 75, all adopted by reference at Rule 62-204.800, F.A.C.; or
- 2) The owner or operator demonstrates that the CEMS otherwise represents the most accurate means of computing emissions for purposes of this rule.
- (b) Stack gas volumetric flow rates used with the CEMS to compute emissions shall be obtained by the most accurate of the following methods as demonstrated by the owner or operator:
- 1) A calibrated flow meter that records data on a continuous basis, if available; or
- 2) The average flow rate of all valid stack tests conducted during a five-year period encompassing the period over which the emissions are being computed, provided all stack tests used shall represent the same operational and physical configuration of the unit.
- (c) The owner or operator may use CEMS data in combination with an appropriate f-factor, heat input data, and any other necessary parameters to compute emissions if such method is demonstrated by the owner or operator to be more accurate than using a stack gas volumetric flow rate as set forth at subparagraph 62-210.370(2)(b)2., F.A.C., above.
- (3) **Mass Balance Calculations.**
- (a) An owner or operator may use mass balance calculations to compute emissions of a pollutant for purposes of this rule provided the owner or operator:
- 1) Demonstrates a means of validating the content of the pollutant that is contained in or created by all materials or fuels used in or at the emissions unit; and
- 2) Assumes that the emissions unit emits all of the pollutant that is contained in or created by any material or fuel used in or at the emissions unit if it cannot otherwise be accounted for in the process or in the capture and destruction of the pollutant by the unit's air pollution control equipment.

SECTION 4. APPENDIX C

Common Conditions

- (b) Where the vendor of a raw material or fuel which is used in or at the emissions unit publishes a range of pollutant content from such material or fuel, the owner or operator shall use the highest value of the range to compute the emissions, unless the owner or operator demonstrates using site-specific data that another content within the range is more accurate.
 - (c) In the case of an emissions unit using coatings or solvents, the owner or operator shall document, through purchase receipts, records and sales receipts, the beginning and ending VOC inventories, the amount of VOC purchased during the computational period, and the amount of VOC disposed of in the liquid phase during such period.
- (4) Emission Factors.
- (a) An owner or operator may use an emission factor to compute emissions of a pollutant for purposes of this rule provided the emission factor is based on site-specific data such as stack test data, where available, unless the owner or operator demonstrates to the EPD that an alternative emission factor is more accurate. An owner or operator using site-specific data to derive an emission factor, or set of factors, shall meet the following requirements.
 - 1) If stack test data are used, the emission factor shall be based on the average emissions per unit of input, output, or gas volume, whichever is appropriate, of all valid stack tests conducted during at least a five-year period encompassing the period over which the emissions are being computed, provided all stack tests used shall represent the same operational and physical configuration of the unit.
 - 2) Multiple emission factors shall be used as necessary to account for variations in emission rate associated with variations in the emissions unit's operating rate or operating conditions during the period over which emissions are computed.
 - 3) The owner or operator shall compute emissions by multiplying the appropriate emission factor by the appropriate input, output or gas volume value for the period over which the emissions are computed. The owner or operator shall not compute emissions by converting an emission factor to pounds per hour and then multiplying by hours of operation, unless the owner or operator demonstrates that such computation is the most accurate method available.
 - (b) If site-specific data are not available to derive an emission factor, the owner or operator may use a published emission factor directly applicable to the process for which emissions are computed. If no directly-applicable emission factor is available, the owner or operator may use a factor based on a similar, but different, process.
- (5) Accounting for Emissions During Periods of Missing Data from CEMS, PEMS, or CPMS. In computing the emissions of a pollutant, the owner or operator shall account for the emissions during periods of missing data from CEMS, PEMS, or CPMS using other site-specific data to generate a reasonable estimate of such emissions.
- (6) Accounting for Emissions During Periods of Startup and Shutdown. In computing the emissions of a pollutant, the owner or operator shall account for the emissions during periods of startup and shutdown of the emissions unit.
- (7) Fugitive Emissions. In computing the emissions of a pollutant from a facility or emissions unit, the owner or operator shall account for the fugitive emissions of the pollutant, to the extent quantifiable, associated with such facility or emissions unit.
- (8) Recordkeeping. The owner or operator shall retain a copy of all records used to compute emissions pursuant to this rule for a period of five years from the date on which such emissions information is submitted to the EPD for any regulatory purpose.

[Rule 62-210.370(2), F.A.C.]

c. *Annual Operating Report for Air Pollutant Emitting Facility*

- (1) The Annual Operating Report for Air Pollutant Emitting Facility (DEP Form No. 62-210.900(5)) shall be completed each year for the following facilities:

SECTION 4. APPENDIX C
Common Conditions

- (a) All Title V sources.
 - (b) All synthetic non-Title V sources.
 - (c) All facilities with the potential to emit ten (10) tons per year or more of volatile organic compounds or twenty-five (25) tons per year or more of nitrogen oxides and located in an ozone nonattainment area or ozone air quality maintenance area.
 - (d) All facilities for which an annual operating report is required by rule or permit.
- (2) Notwithstanding paragraph 62-210.370(3)(a), F.A.C., no annual operating report shall be required for any facility operating under an air general permit.
- (3) By April 1 of the year following each calendar year, an annual operating report shall be submitted to the appropriate Department of Environmental Protection (DEP) division, district or DEP-approved local air pollution control program office. However, if the annual operating report is submitted using the DEP's electronic annual operating report software, there is no requirement to submit DEP Form No. 62-210.900(5) to any DEP or local air program office. Each Title V Source shall submit the annual operating report using the DEP's electronic annual operating report software, unless the Title V source claims a technical or financial hardship. A technical or financial hardship is claimed by submitting DEP Form No. 62-210.900(5) to the DEP Division of Air Resource Management at:

AOR and Major Air Pollution Source Annual Emissions Fee
P.O. Box 3070
Tallahassee, Florida 32315-3070

(See <http://www.dep.state.fl.us/air/emission/eaor/> for information regarding annual operating reports.)

- (4) Emissions shall be computed in accordance with the provisions of subsection 62-210.370(2), F.A.C., for purposes of the annual operating report.

[Rule 62-210.370(3), F.A.C.]

- d. *Facility Relocation.* Unless otherwise provided by rule or more stringent permit condition, the owner or operator of a relocatable facility must submit a Facility Relocation Notification Form (DEP Form No. 62-210.900(6)) to the EPD at least 30 days prior to the relocation. A separate form shall be submitted for each facility in the case of the relocation of multiple facilities which are jointly owned or operated. [Rule 62-210.370(4), F.A.C.]



Environmental Protection Division

**TECHNICAL EVALUATION
&
PRELIMINARY DETERMINATION**

APPLICANT

Bimbo Bakeries USA, Inc.
850 Mid Florida Drive
Orlando, FL 32827
Bimbo Bakeries
Facility ID No. 0951231

PROJECT

Project No. 0951231-009-AC
Application for Title V Source Air Construction Permit
Increase VOC Emissions Limit

COUNTY

Orange County, Florida

PERMITTING AUTHORITY

Orange County Environmental Protection Division
3165 McCrory Place, Suite 200
Orlando, FL 32803

September 21, 2016

1. GENERAL PROJECT INFORMATION

Air Pollution Regulations

Projects at stationary sources with the potential to emit air pollution are subject to the applicable environmental laws specified in Section 403 of the Florida Statutes (F.S.). The statutes authorize the Department of Environmental Protection (Department) to establish regulations regarding air quality as part of the Florida Administrative Code (F.A.C.), which includes the following applicable chapters: 62-4 (Permits); 62-204 (Air Pollution Control – General Provisions); 62-210 (Stationary Sources – General Requirements); 62-212 (Stationary Sources – Preconstruction Review); 62-213 (Operation Permits for Major Sources of Air Pollution); 62-296 (Stationary Sources - Emission Standards); and 62-297 (Stationary Sources – Emissions Monitoring). Specifically, air construction permits are required pursuant to Chapters 62-4, 62-210 and 62-212, F.A.C.

In addition, the U. S. Environmental Protection Agency (EPA) establishes air quality regulations in Title 40 of the Code of Federal Regulations (CFR). Part 60 specifies New Source Performance Standards (NSPS) for numerous industrial categories. Part 61 specifies National Emission Standards for Hazardous Air Pollutants (NESHAP) based on specific pollutants. Part 63 specifies NESHAP based on the Maximum Achievable Control Technology (MACT) for numerous industrial categories. The Department adopts these federal regulations in Rule 62-204.800, F.A.C.

In accordance with the terms of its Specific Operating Agreement, the Orange County Environmental Protection Division has been delegated the authority to process this application on behalf of the Department.

Glossary of Common Terms

Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of this permit.

Facility Description and Location

Bimbo Bakeries is an existing bakery producing yeast breads, which is categorized under Standard Industrial Classification Code No. 2051, Bread and other Bakery Products, except Cookies and Crackers. The existing Bimbo Bakeries is located in Orange County at 850 Mid Florida Drive in Orlando, Florida. The UTM coordinates of the existing facility are Zone 17, 464.04 km East, and 3,143.06 km North. This site is in an area that is in attainment (or designated as unclassifiable) for all air pollutants subject to Ambient Air Quality Standards (AAQS).

The facility was initially permitted as a minor source (initial AC in 2000, initial AO on 2001). The facility increased production and was permitted as a Title V source in 2006. Permit 0951231-006-AC restricted the production of yeast bread products to 52,500 TPY and the VOC emissions to 90.0 TPY, which moved the facility to synthetic minor (non-Title V) status. Project 0951231-008-AO was an administrative correction reflecting the facility's name change from Mid-Gulf to Bimbo.

Facility Regulatory Categories

- The facility is not a major source of hazardous air pollutants (HAP).
- The facility is a Title V major source of air pollution in accordance with Chapter 62-213, F.A.C.
- The facility is not a major stationary source in accordance with Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

Project Description

This project will modify three emissions units:

EU 002:

The currently inactive EU 002 contains a stationary RICE unit subject to 40 CFR Part 63 Subpart ZZZZ. As the facility resumes Title V status, EU 002 will be re-activated (though there is no new construction authorized).

EU 003:

The permittee has requested an increase in the allowable VOC emissions from EU 003. The activities contained in EU 003 will remain unchanged, with an unchanged maximum process rate. This permit will authorize an increased VOC emission limit of 225.0 tons per consecutive 12-month period, which will result in the facility becoming a Title V major source of air pollution.

EU 004:

Operating permit 0951231-007-AO regulates EU 004, which is the flour silos, including a requirement for visible emissions compliance tests. The potential PM emissions from these silos are considered insignificant by 62-213.430(6), F.A.C. Thus, EU 004 will be marked as inactive in ARMS and will not be regulated as an emission unit in this permit and concurrent AV permit. Making these silos insignificant eliminates visible emission testing requirements.

Processing Schedule

07/06/2016	Received the application for concurrent major source air construction permit (increasing permit limits to move into major source status) and Title V operating permit.
08/31/2016	Application complete.
09/21/2016	Mail Written Notice of Intent to Issue Air Permit, Public Notice of Intent to Issue Air Permit, and Draft Construction Permit.

2. PSD APPLICABILITY

The project is located in Orange County which is in an area that is currently in attainment with the AAQS or is otherwise designated as unclassifiable. The project is not subject to a PSD preconstruction review.

3. EPD REVIEW

Bimbo is an existing source of air pollution (VOC) located in Orange County. The facility produces bread using yeast recipes, resulting in ethanol emissions. The facility has no control equipment, though the current permit (0951231-007-AO) limits production at 52,500 tons of bread per year and VOC emissions at 90.0 TPY as calculated by AP-42 §9.9.6.

On July 6, 2016, Bimbo submitted to EPD an application stating that the facility has increased production (still within the 52,500 TPY limit), and they are predicting higher VOC emissions. Because of the trade secret nature of their business, Bimbo has elected to not provide EPD with details of recipes and corresponding emission factors. Based on EPD's experience with similar bakeries with generally similar emission factors, the EPD has reasonable assurance that the proposed production and emission limits are acceptable.

The facility is requesting an increase in allowable VOC emissions to 225 TPY. (The application requests 250 TPY, but after discussion with EPD, the applicant's consultant agreed that a 225 TPY limit was acceptable. This email, dated July 11, 2016, is available on OCULUS.) This reduction provides assurance that the VOC emissions from all facility-wide activities will not reach the PSD threshold of 250 TPY. This moves the facility into Title V, and the applicant has requested concurrent AC/AV permitting. The application stated that the worst-case potential VOC emissions are 219.25 TPY, below the requested limit of 225 TPY. This provides EPD with reasonable assurance that the facility will not exceed the VOC PSD threshold.

Brief Discussion of Emissions

The emitted compound of concern for this facility is the ethanol generated from the digestion of starches by yeast. Ethanol is a VOC.

Pursuant to Rule 62-210.200(170), F.A.C., the facility is a Major Facility because it has the potential to emit 100 TPY or more of any other air pollutant subject to regulation under Chapter 403, F.S. (VOC).

Pursuant to Rule 62-210.200(174), F.A.C., the facility is NOT a PSD major stationary source because, while it has potential to emit 100 TPY or more of any PSD pollutant (VOC), bakery operations are not listed in Rule 62-

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

210.200(174)(a)1, F.A.C., and the facility does not have the potential to emit 250 TPY of any PSD pollutants, pursuant to Rule 62-210.200(174)(a)2, F.A.C., and the proposed activity does not result in any physical changes that would constitute a major stationary source by itself, pursuant to Rule 62-210.200(174)(a)3, F.A.C.

The emergency electricity RICE engine in EU 002 is fired with a combination of 70% natural gas and 30% diesel fuel. Potential emissions were calculated by using AP-42, Table 3.4-1 emission factors for dual fuel engines. The NO_x emission factor is 0.018 lb/hp-hr, the VOC emission factor is 0.0013 lb/hp-hr, the CO emission factor is 0.0075 lb/hp-hr. Potential emissions assume normal operation is limited to 100 hr/yr, all other operation is emergency operation that is not limited or regulated. Potential emissions for 100 hr/yr are 2.4 TPY NO_x, 0.2 TPY VOC, and 1.0 TPY CO.

There is no AP-42 EF for handling of flour. Due to the similarity in size, some engineers use the AP-42 EF for Portland Cement, found in AP-42 §11.6, Table 11.6-2 (English Units). The EF for dry process kiln with fabric filter is 0.20 lb PM per ton of clinker produced and 0.17 lb PM-10 per ton of clinker produced. The application does not provide the mass of flour handled at the facility. Assuming the bread product produced is 80% flour and 20% water (overly conservative: “[The Moisture Content of White Bread](#)” cites 37.5% water by mass; [21 CFR Part 136, Subpart B](#) states that the finished foods (bakery products) shall contain not less than 68% total solids), the amount of flour entering the facility would be 42,000 tons of flour per year. If we assume tons of flour used to be approximately the same as the tons of clinker produced, we can calculate estimated PM and PM-10.

$$Mass_{flour} = Mass_{breadproduced} \cdot \left(\frac{Mass_{flour}}{Mass_{breadproduced}} \right) = 52,500 tons yeast bread \cdot \left(\frac{0.8 tons flour}{1 ton yeast bread} \right) = 42,000 tons flour$$

$$PM_{flourhandling} = 0.20 \frac{lbPM}{tonshandled} \cdot 42,000 \frac{tonsofyeastbread}{yr} \cdot \frac{1tonPM}{2,000lbPM} = 4.2 \frac{tonPM}{yr}$$

$$PM-10_{flourhandling} = 0.17 \frac{lbPM-10}{tonshandled} \cdot 42,000 \frac{tonsofyeastbread}{yr} \cdot \frac{1tonPM-10}{2,000lbPM-10} = 3.57 \frac{tonPM-10}{yr}$$

As defined in Rule 62-213.430(6)(b), F.A.C., because the flour handling activities have potential to emit less than 5.0 TPY of PM and PM-10 (and no other air pollutants), the flour handling activities are considered insignificant.

The bread-baking oven is rated at 7.02 MMBtu/hr and operates on natural gas. AP-42 provides EF for natural gas combustion in Tables 1.4-1 and 1.4-2. The NO_x emissions are predicted to be as follows:

$$NO_x = 7.02 \frac{MMBtu}{hr} \cdot \frac{8,760hr}{yr} \cdot 100 \frac{lbNO_x}{10^6 scf} \cdot \frac{1scf}{1,020Btu} \cdot \frac{10^6}{1MM} \cdot \frac{1tonNO_x}{2,000lbNO_x} = 3.01 \frac{tonsNO_x}{yr}$$

Using the same methodology:

Table 1: PTE for Baking Lines from Natural Gas Combustion

Heat Rating (MMBtu/hr)	NO _x		CO		PM		VOC	
	AP-42 EF (lb/10 ⁶ scf)	PTE (TPY)	AP-42 EF (lb/10 ⁶ scf)	PTE (TPY)	AP-42 EF (lb/10 ⁶ scf)	PTE (TPY)	AP-42 EF (lb/10 ⁶ scf)	PTE (TPY)
7.02	100	3.01	84	2.53	7.6	0.23	5.5	0.17

The natural gas-fired oven is insignificant pursuant to Rule 62-213.430(6)(b), F.A.C., because it does not have unit-specific applicable requirements, the activity does not cause the facility to exceed any major source thresholds, and the activity does not have the potential to emit more than 5.0 TPY of any regulated pollutant.

The facility also uses a steam boiler with a rated heat input of 2.5 MMBtu/hr, fired only with natural gas, in the production area. Using the same AP-42 EF and formula as above, the boiler emissions are as follows:

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

Table 2: PTE for Boiler from Natural Gas Combustion

Heat Rating (MMBtu/hr)	NO _x		CO		PM		VOC	
	AP-42 EF (lb/10 ⁶ scf)	PTE (TPY)	AP-42 EF (lb/10 ⁶ scf)	PTE (TPY)	AP-42 EF (lb/10 ⁶ scf)	PTE (TPY)	AP-42 EF (lb/10 ⁶ scf)	PTE (TPY)
2.5	100	1.07	84	0.90	7.6	0.08	5.5	0.06

As with the natural gas oven in the production lines, the boiler is also considered insignificant. Each of these insignificant sources is not included as emission units, but the potential to emit (PTE) from these activities is included in the facility-wide PTE calculations.

Therefore, the insignificant sources list is as follows:

- One 2.5 MMBtu/hr natural gas-fired boiler;
- One 7.02 MMBtu/hr natural gas-fired bread production oven;
- Flour silos with bin vent filters;
- Equipment used exclusively for space heating, other than boilers (HVAC equipment);
- Printers that apply date stamp on the product packaging;
- Parts washer;
- Brazing, soldering, and welding equipment.

The facility total potential to emit air pollutants is as follows. The facility is a Title V major source but not a PSD major source. Recordkeeping is required to demonstrate compliance.

Table 3: PTE from All Potential Sources (all in tons per consecutive 12-month period, TPY)

	Baking Lines: Fermentation VOC	Baking Lines: Natural Gas Combustion	Boilers	Flour Silos	EU 002 RICE Engine	Regulated EU Total	Title V Threshold	PSD Threshold
VOC Emissions	225	0.17	0.06	--	0.2	225.4	100	250
NO _x Emissions	--	3.0	1.07	--	2.4	6.5	100	250
CO Emissions	--	2.5	0.90	--	1	4.4	100	250
PM Emissions	--	0.23	0.08	4.2	0	4.5	100	250

State Requirements

- Rule 62-4.070, F.A.C., Standards for Issuing or Denying Permits; Issuance; Denial.
- Rule 62-210.200, F.A.C., Definitions
- Rule 62-210.300, F.A.C., Permits Required
- Rule 62-210.370, F.A.C., Emissions Computation and Reporting

Federal NSPS Provisions

None.

Federal NESHAP Provisions

40 CFR Part 63, Subpart A, NESHAP General Provisions

40 CFR Part 63, Subpart ZZZZ, National Emissions Standards For Hazardous Air Pollutants For Stationary

Reciprocating Internal Combustion Engines

Other Draft Permit Requirements

Orange County Ordinance Chapter 15 Article III, Air Quality Control

4. PRELIMINARY DETERMINATION

The EPD makes a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations as conditioned by the draft permit. This determination is based on a technical review of the complete application, reasonable assurances provided by the applicant, and the conditions specified in the draft permit. No air quality modeling analysis is required because the project does not result in a significant increase in emissions. Beth M. Burkard, P.E., is the project engineer responsible for reviewing the application and drafting the permit. Additional details of this analysis may be obtained by contacting the project engineer at EPD's office, 3165 McCrory Place, Suite 200, Orlando, FL 32803, phone 407-836-1459, or by email at AirPermitsOrangeCounty@ocfl.net.