

## STATEMENT OF BASIS

Title V Air Operation Permit Renewal  
Permit No. 1050325-011-AV

### APPLICANT

The applicant for this project is Flowers Baking Co. of Lakeland, Inc. The applicant's responsible official and mailing address are: Mike Myers, Plant Manager, Flowers Baking Co. of Lakeland, Inc., 3355 West Memorial Blvd., Lakeland, Florida, 33815.

### FACILITY DESCRIPTION

The applicant operates the existing Flowers Baking Co. of Lakeland, Inc., which is located in Polk County at 3355 West Memorial Blvd., Lakeland, Florida.

This facility consists of four baking lines for yeast-based products, four natural gas-fired ovens and eight flour storage silos. Bulk quantities of flour are shipped to the facility in cargo tankers and the flour is conveyed into one of the facility's eight storage silos. These silos, which are located outside the facility, utilize either baghouses (Silo Nos. 1 through 6) or bin vent filters (Silo Nos. 7 and 8) to minimize the loss of flour during the flour unloading process. The flour is then weighed and mixed with sugar, yeast, water, and other miscellaneous ingredients. There are two basic types of dough mixing processes utilized at the facility: sponge dough (Oven Nos. 1 and 2) and liquid fermentation (Oven Nos. 3 and 4). These processes vary in the manner in which the various dough ingredients are mixed, which determines the amount of fermentation time available. Fermentation times can vary from 20 minutes or less to five hours or more, usually averaging between three and three and a half hours. The baking process, which occurs in the four ovens (Oven Nos. 1 and 2 for baking bread, and Oven Nos. 3 and 4 for baking buns), causes expansion of the loaf to final volume, crust formation, yeast and enzyme activity inactivation, coagulation of the dough proteins, partial gelatinization of the starch, and reduction of loaf moisture, all of which are necessary to produce high-quality bread products.

Before entering an oven, the dough is allowed to rise in a "proof box". Steam for this high temperature, high-humidity proof box environment is supplied by three natural gas-fired boilers (insignificant emission units). Oven emissions are generated by two processes: the combustion of natural gas, and off-gassing from the bread products themselves. Bread product off-gases are generated as a result of the fermentation process, which causes the sugars and starches to be converted to ethanol, carbon dioxide, and water. Fermentation begins immediately following the initial mixing of ingredients and continues until the yeast is killed in the oven. During the initial fermentation period, a skin forms on the top of the dough. The skin keeps the ethanol and carbon dioxide in the dough, thereby allowing the dough to rise and minimizing fugitive emissions. As a result, most of the ethanol generated by the fermentation process is released in the oven when the skin breaks during the baking process. Once the product exits the oven, it is allowed to cool while it is transferred via conveyor to the slicing and packaging area. Once sliced and packaged, the product is shipped to customers by truck. The facility also operates an emergency generator. This facility also includes miscellaneous unregulated/insignificant emissions units and/or activities.

### REGULATED EMISSIONS UNIT IDENTIFICATION NUMBERS AND DESCRIPTIONS

EU No.	Brief Description
001	Oven No. 1 – Line 1 Continuous Bread Baking Oven
002	Oven No. 2 – Line 2 Continuous Bread Baking Oven
003	Oven No. 3 – Line 3 Continuous Bread Baking Oven
004	Oven No. 4 – Line 4 Continuous Bread Baking Oven
005	Flour Storage Silos (8)
006	Emergency Generator (64.37 HP)

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### APPLICABLE REGULATIONS

Based on the Title V air operation permit renewal application received March 13, 2024, this facility is not a major source of hazardous air pollutants (HAP). The existing facility is not a prevention of significant deterioration (PSD) major source of air pollutants in accordance with Rule 62-212.400, F.A.C. A summary of applicable regulations is shown in the following table.

Regulation	EU No.
<i>Federal Rule Citations</i>	
40 CFR 60, Subpart A, NSPS General Provisions	006
40 CFR 60, Subpart JJJJ, Standards of Performance for Stationary SI ICE	006
<i>State Rule Citations</i>	
Chapter 62-213, F.A.C.	001 - 006
Rule 62-204.800 F.A.C., Federal Regulations Adopted by Reference	006

### PROJECT DESCRIPTION

The purpose of this permitting project is to renew the existing Title V permit for the above referenced facility.

### PROCESSING SCHEDULE AND RELATED DOCUMENTS

Application for a Title V Air Operation Permit Renewal received **March 13, 2024**.

Additional Information Request dated **April 9, 2024**.

Draft permit package issued **December 18, 2024**.

Proposed permit package issued **February 20, 2025**.

### PRIMARY REGULATORY REQUIREMENTS

Standard Industrial Classification (SIC) Code: 2051- Bread and Other Bakery Products, Except Cookies and Crackers.

North American Industry Classification System (NAICS): 311812- Commercial Bakeries.

HAP: The facility is not identified as a major source of hazardous air pollutants (HAP).

Title V: The facility is a Title V major source of air pollution in accordance with Chapter 62-213, Florida Administrative Code (F.A.C.).

NSPS: The facility operates units subject to the New Source Performance Standards (NSPS) of 40 Code of Federal Regulations (CFR) 60.

### PROJECT REVIEW

Changes to the permit made as part of this renewal are shown in ~~strike through~~ format for deletions and in double underline format for additions. For ease of identification, all changes have also been **highlighted in yellow** within the permit document.

1. Changes throughout the Title V air operation permit are based on the Department's updated formats for a Title V air operation permit.
2. The Department made minor revisions in language for clarification.
3. The permit was reorganized for consistency.

### Section I. Facility Description.

#### Subsection A. Facility Description

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4. Updated the facility description.

### Subsection C. Applicable Regulations

5. Updated the table to reflect the emission unit's applicable rules and regulations.

### **Section II. Facility-Wide Conditions.**

6. Previous Specific Conditions **A.3** (Volatile Organic Compounds (VOC)), **A.4** (Individual Hazardous Air Pollutants (HAP) Emissions) and **A.5** (HAP and VOC Records) were moved from Section III. Emissions Units and Specific Conditions, Subsection A, Oven Nos 1 – 4, Line Nos 1 – 4 Continuous Bread Baking (EU 001 - EU 004) to Facility-Wide Conditions **FW10** (VOC Emissions), **FW11** (Individual HAP Emissions), and **FW12** (HAP and VOC Records) since these limits are facility-wide emission limits and not to the specific emission units.
7. The Department added the applicable Facility-Wide Condition **FW13** (Special Compliance Test) that was in a previously issued air construction Permit No. 1050325-007-AC.
8. The Department added the applicable Facility-Wide Condition **FW14** (Emissions Unit Operating Rate Limitation After Testing).

### **Section III. Emissions Units and Specific Conditions.**

#### Subsection A. Oven Nos 1 – 4, Line Nos 1 – 4 Continuous Bread Baking (EU 001 - EU 004)

9. As stated in Item 6 above, previous Specific Conditions **A.3** (Volatile Organic Compounds (VOC)), **A.4** (Individual Hazardous Air Pollutants (HAP) Emissions) and **A.5** (HAP and VOC Records) were moved to Section II, Facility-Wide Conditions.
10. Added the following applicable Specific Condition **A.3** (Change in Operation - Notification) that was established in a previously issued air construction Permit No. 1050325-007-AC.

**A.3.** Change in Operation - Notification. Any proposed change to this source that will cause the limitations of this permit to be exceeded, such as design-parameter changes or an increase in emissions, may be considered a modification and must be reported. The permittee shall notify the Air Permitting Section of the Department's Southwest District Office of any changes that may reasonably be expected to increase actual emissions and receive written approval from the Air Permitting Section of the Department's Southwest District Office of the changes prior to implementing the changes. [Rule 62-4.070(3), F.A.C.; and Permit No. 1050325-007-AC]

#### Subsection B. Flour Storage Silos (8) (EU 005)

11. Added Specific Conditions **B.3** (Silo Baghouse Nos. 1 - 6) and **B.4** (Bin Vent Filters) identifying the control equipment used to control emissions of particulate matter (PM) and the Specific Conditions **B.4** (Circumvention) which restricts the circumventing or operating the control equipment in a manner that would violate allowable emission rates established for these units.

**B.3.** Silo Baghouse Nos. 1 - 6. Silo Nos. 1 - 6 are each equipped with a fabric filter baghouse to control emissions of PM. The existing baghouses use Parker Sales, Bag No. 156C x 77, with strap-top (Part No. NGDTR1), or equivalent. The baghouses control emissions of PM with a control efficiency of 99% for PM and PM with a mean diameter of less than 10 microns (PM<sub>10</sub>) and 95% for PM<sub>2.5</sub>. [Permit No. 1050325-007-AC]

**B.4.** Bin Vent Filters. Silo Nos. 7 - 8 are equipped with bin vent filters, Schiek canister-type, Tubeveyor Filter (Part No. 15307), or equivalent to, to control emissions of PM. The bin vent filters control emissions of PM with a control efficiency of 99% for PM and PM<sub>10</sub> and 95% for PM<sub>2.5</sub>. [Permit No. 1050325-007-AC]

12. Revised Specific Condition **B.6** (Silo Loading Records) to reflect the established recordkeeping requirements in previously issued air construction Permit No. 1020325-007-AC and meet the Title V format standards. The condition was revised as follows:

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**B.6.** Silo Loading Records. The permittee shall keep logs for the facility to document compliance with the silo loading limitation of Specific Condition ~~No. B.1.~~ The logs shall at a minimum contain the following:

a. Monthly Logs. The logs shall at a minimum contain the following:

- (1) a. Facility Name, Emission Unit ID No. and Description;
- (2) b. Month, year, and method used for records;
- (3) c. The ~~sum~~ total, in tons, quantity of the material ~~(in tons)~~ loaded into ~~all~~ the eight ~~(8)~~ of the flour storage silos combined ~~for the month; and~~;
- (4) d. The ~~most recent consecutive 12-month sum~~ total, in tons, quantity of the material ~~(in tons)~~ loaded into ~~all~~ the eight ~~(8)~~ of the flour storage silos combined ~~for the most recent consecutive 12-month period.~~

b. Record Retention. All records/logs shall be maintained on site for a minimum of the most recent 5 year period and made available to the Department upon request. Monthly records/logs required by this permit shall be completed by the end of the following month.

[Rules 62-4.070(3) & 62-213.440(1)(b), F.A.C.; and Permit No. 1050325-007-AC]

13. Added the applicable Specific Condition **B.7** (Change in Operation - Notification) , as shown in Item **10** above, that was established in a previously issued air construction Permit No. 1050325-007-AC.

Subsection C. Emergency Generator (64.37 HP) (EU 006)

14. Updated the applicable requirements of 40 CFR 60, Subpart JJJJ, NSPS for Standards of Performance for Stationary SI ICE for the existing emergency engine.

15. Removed previous Specific Condition **C.8** (Operation and Maintenance (O & M) Plan) since these requirements are stated in 40 CFR 60, Subpart JJJJ, and not in a previously issued air construction permit in accordance with Rule 62-4.070, F.A.C., Reasonable Assurance.

## CONCLUSION

This project renews Title V air operation permit No. 1050325-010-AV, which was effective on November 27, 2019. This Title V air operation permit renewal is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-4, 62-210, and 62-213, F.A.C.