STATEMENT OF BASIS

FLOWERS BAKING COMPANY OF JACKSONVILLE, LLC
BREAD PRODUCTS BAKERY
Facility ID No.: 0310418
Duval County

TITLE V AIR OPERATION PERMIT RENEWAL

PROPOSED Title V Air Operation Permit Renewal No.: 0310418-004-AV

The initial Title V Air Operation Permit No. 0310418-001-AV was effective on 16-DEC-1999. This Title V Air Operation Permit Renewal is issued under the provisions of Chapter 403, Florida Statutes (FS), and Florida Administrative Code (FAC) Chapters 62-4, 62-210 and 62-213. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

The subject of this permit is to renew the Title V Air Operation Permit.

Bread baking at this facility is a highly mechanized process. Bulk quantities of flour are shipped to the facility in cargo trucks and the flour is conveyed into one of the two storage silos (insignificant emission units). These silos, which are located inside the facility, are equipped with process bin vent filters to minimize loss of flour during loading. The flour is then weighed and mixed with sugar, yeast, water, and other miscellaneous ingredients. Sugar is shipped in bulk liquid form by cargo truck.

There are four basic types of dough mixing processes: sponge dough, straight dough, liquid brew, and no-time dough. These processes vary in the manner in which the various dough ingredients are mixed, which determines the amount of fermentation time available. Fermentation time can vary from five hours or more to 20 minutes or less, usually averaging two to two and a half hours. The baking process actually occurs in the oven itself [bread oven (001) and bun oven (002)], which causes expansion of the loaf to final volume, crust formation, yeast and enzymatic 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, salable bread products. To accomplish all of these product and process effects in the proper sequence, the ovens typically have from three to eight temperature gradient zones that are maintained in critical balance.

This particular bakery consists of two high-speed production lines that produce bread and buns, and utilizes straight dough, sponge dough, and liquid brew processes. In the straight dough process, all ingredients are combined in the mixer and blended to create the final dough. In the sponge dough process, some of the ingredients are mixed together to form a "sponge". This sponge is then put into a trough where the sponge is allowed to ferment for several hours before it is returned to another mixer where the balance of ingredients are added and mixed to create the final dough. In the liquid brew process, the mixing of various ingredients produces a "brew" that is pumped into a fermentation tank and allowed to ferment for a set period of time. This initiates a long series of complex biochemical changes that end in the oven where the bread is baked. From the fermentation tank, the brew is pumped to the mixer and blended with additional flour and the remaining ingredients to create the final dough. In all cases, the final dough is transferred to the make-up equipment where it is kneaded, cut to the proper size, and deposited into a pan.

Before entering the oven, the dough is allowed to rise in a "proof box". Steam for this high temperature, high-humidity proof box environment is supplied by two boilers (insignificant emissions units). Oven emissions are generated by two processes: the combustion of natural gas and off-gassing from the bread itself. Off-gassing from the bread is 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 fermentation is released in the oven when the skin breaks during the baking process.

EU ID No.	Brief Description
001	Bread Oven
002	Bun Oven

Also included in this permit are insignificant emission units and/or activities.

Based upon the Title V air operating permit renewal application received October 1, 2007 this facility is not a major source of Hazardous Air Pollutants [HAP(s)]

This facility does not contain any emission units subject to Compliance Assurance Monitoring (CAM) requirements.