

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: On-site Inspection

B439473779

FACILITY: BIMBO BAKERIES USA, INC.		SRN / ID: B4394
LOCATION: 210 28TH STREET, S.E., GRAND RAPIDS		DISTRICT: Grand Rapids
CITY: GRAND RAPIDS		COUNTY: KENT
CONTACT: Walter Snidanko , Facility Manager		ACTIVITY DATE: 09/12/2024
STAFF: Scott Evans	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: FY24 On Site Inspection		
RESOLVED COMPLAINTS:		

Introduction

On September 12, 2024, State of Michigan Department of Environment, Great Lakes, and Energy Air Quality Division staff member Scott Evans conducted an on-site inspection of the Bimbo Bakeries facility located at 210 28th Street Southeast in Grand Rapids, Michigan, to assess compliance with permit conditions and all other applicable air quality rules and regulations. Bimbo Bakeries is a bread-making facility that produces buns and yeast-containing bread products through the use of natural gas-fired ovens with a catalytic oxidizer for pollution control. This facility is classified as a synthetic minor source for Volatile Organic Compounds (VOCs). It has one active Opt-Out permit to install (PTI): PTI No. 14-97F which was recently modified on March 20, 2024, to include the addition of a VOC control device.

PTI No. 14-97F

This permit contains requirements for two emission units (EUs) and one flexible group (FG) as follows:

- EU001 – 6.71 mmBtu natural gas-fired bread oven.
- EU002 – 4.05 mmBtu natural gas-fired bun oven.
- FGFACILITY – All process equipment including permitted, exempt, and grandfathered equipment.

EU001

This emission unit consists of one natural gas fired oven for baking yeast raised bread products. It is permitted to utilize a 3.67 mmBtu natural gas-fired catalytic oxidizer for pollution control of VOCs.

This unit has one emission limit, which states that no more than 27.45 tpy of VOCs may be emitted from the unit. This limit is set to be applicable on and after the installation of the new catalytic oxidizer. At the time of this inspection, the catalytic oxidizer had not been installed. This is discussed further below. At this time, because the unit has not been installed this limit does not apply. Compliance is instead determined through the material limit discussed below.

This unit has one material limit, which states that no more than 59,350,000 lb/yr of bread may be produced. This limit is applicable until the catalytic oxidizer is installed and so is the applicable limit at this time. Assessment of compliance with this limit was assessed through a review of production records, which are discussed below in further detail. Records demonstrated that the highest 12-month production period occurred from January 2023 to December 2023 with a total of 37,173,720 lbs of bread produced. This is compliant with the requirement.

This unit has two operational restrictions. The first states that the unit may not operate unless a minimum temperature of 550°F at the inlet of the catalyst bed of the catalytic oxidizer is maintained. As the oxidizer has not yet been installed, this limit is not applicable at this time.

The second restriction states that the unit shall not operate without use of the oxidizer for more 100 hours per 12-month period as determined at the end of each calendar month. As the oxidizer has not yet been installed, this limit is not applicable at this time.

This unit has three design parameters. The first states that, within 30 days of startup of the catalytic oxidizer, the permittee shall not operate the unit unless the oxidizer is installed, maintained, and operated appropriately. Additionally, the installment of the unit shall not exceed 270 days after the issuance of the permit. The permit was issued on March 20, 2024. At the time of inspection, the unit has not been installed. The facility is still within the 270 day limit as discussed. When discussed with the facility, it was expressed that installation is scheduled to begin before this cutoff date. Initial installation must be completed by December 15, 2024.

The second parameter states that the unit cannot operate without the catalytic oxidizer being installed, maintained, and operated appropriately as determined by a VOC destruction efficiency of 90% and a maximum space velocity of 40,000 inverse hours. Though the equipment has not been installed and so stack testing has not occurred to verify these parameters, the facility has expressed that stack testing has been scheduled as part of the installation process.

The third parameter states that a temperature monitoring device shall be installed, maintained, and operated to monitor the temperature of the catalytic oxidizer. Though it has not yet been installed, the facility is aware of this requirement and the planned unit will have temperature monitoring equipment.

This unit has one testing requirement, which states that the facility must verify destruction efficiency of the catalytic oxidizer within 60 days of achieving maximum production rate but not later than 180 days after commencement of initial installation. As mentioned, the facility is aware of this requirement and has scheduled testing that will comply with the timing requirements.

This unit has three recordkeeping requirements. The first states that all required calculations shall be complete and available to the AQD by the last day of the calendar month for the previous calendar month. During the inspection, the facility was able to provide records as required, verifying compliance with this requirement.

The second requirement states that the facility shall keep the following monthly information:

- Total amount of monthly bread produced.
- Total amount of annual bread produced.
- VOC emission rates of the unit.
- VOC Monthly emissions.
- VOC 12-month rolling annual emissions.

The facility was able to provide these records as required and they were used to make the above-discussed emission and production levels.

The third requirement states that the inlet and outlet temperatures of the catalytic oxidizer shall be monitored on a continuous basis. Since no oxidizer had been installed as of this inspection, there were no monitors to review at the time.

This unit has one reporting requirement, which states that the facility must notify the AQD of completion of installation of the catalytic oxidizer, in writing, within 30 days of the completion of installation. As the unit has not been installed yet, no notification has been provided. The facility was reminded that notification is necessary when installation is complete.

This unit has three stack requirements. Two of these stacks apply to the oven itself and were observed during the inspection to confirm compliance. The third is the stack that will be installed with the catalytic oxidizer and so was not present during this inspection.

EU002

This unit consists of one natural gas-fired oven for baking buns. There is no control equipment for this unit.

This unit has one emission limit that states no more than 43.1 tpy of VOCs may be emitted during any 12-month period. Records were provided by the facility, as discussed further below, which demonstrated that the highest emission level was 24.11 tons of VOCs from January 2023, to December 2023. This is compliant with the requirement.

This unit has one material limit that states no more than 25,000,000 lb/yr of buns may be produced during any 12-month period. Records were provided by the facility, as discussed further below, which demonstrated that the highest production level was 13,898,226 lbs from January 2023 through December 2023. This is compliant with the requirement.

This unit has two recordkeeping requirements. The first states that all required calculations shall be complete and available to the AQD by the last day of the calendar month for the previous calendar month. During the inspection, the facility was able to provide records as required, verifying compliance with this requirement.

The second requirement states that the facility shall keep the following monthly information:

- Total amount of monthly buns produced.
- Total amount of annual buns produced.
- VOC emission rates of the unit.
- VOC Monthly emissions.
- VOC 12-month rolling annual emissions.

The facility was able to provide these records as required and they were used to make the above-discussed emission and production levels.

This unit has two stack requirements. Stacks were not measured directly for safety reasons. All stacks were observed during the inspection and appeared to be within required parameters.

FGFACILITY

This flexible group consists of all process equipment including permitted, exempt, and grandfathered equipment.

The source has one emission limit, which states that no more than 96.56 tpy of VOCs may be emitted during any 12-month period. Records were provided by the facility, as discussed further below, that demonstrate that the highest emissions were 96.15 tons from January 2023 through December 2023. This is compliant with the requirement. It is worth noting that, though it does meet compliance, this emission level is very close to the limit. The facility is aware of this fact and it exemplifies their desire to install the catalytic oxidizer. As this emission rate is prior to the installation of the catalytic oxidizer, it is expected that emissions will significantly decrease once the oxidizer has been installed.

The source has one material limit, which states that no more than 362.68 million cubic feet of natural gas shall be used in any 12-month period. Records were provided that demonstrated the highest use was less than 1 million cubic feet from January 2023 to December 2023. This is compliant with the requirements of the permit.

There are three recordkeeping requirements. The first states that all required calculations shall be complete and available to the AQD by the last day of the calendar month for the previous calendar month. During the inspection, the facility was able to provide records as required, verifying compliance with this requirement.

The second requirement states that monthly and 12-month rolling annual gas usage records shall be maintained by the facility. These records were provided as required and appeared to meet the requirements. These records were used to make the above compliance determinations.

The third requirement states that monthly and 12-month rolling annual VOC emissions records shall be maintained by the facility. These records were provided as required and appeared to meet the requirements. These records were used to make the above compliance determinations.

Conclusion

As has been discussed above, there are deadlines and requirements that the facility is required to meet moving forward and the facility is aware of these requirements, though they are not currently applicable prior to the installation of the catalytic oxidizer. At the conclusion of this inspection the facility appeared to be compliant with all applicable permit requirements as well as all other applicable rules and regulations.

NAME Scott EvansDATE 9/25/2024SUPERVISOR 