

**Interstate Brands Corporation**  
**Facility ID: 01-25-04-0468**

**Basis of Calculations**

1) An emission factor for removing baked bread/rolls from pans was not available. As such, an emission factor was estimated based on how many crumbs are collected in each of the crumb traps. A cyclone is used to produce a vacuum that pulls loaves/rolls from pans. The exhaust is filtered through a fabric filter before it enters the outside atmosphere through a stack and the captured crumbs are collected in a crumb trap. Emissions are such that the depanners qualify as de minimis emission units.

2) Emissions from natural gas as the ovens' fuel were used in determining the facility's potential to emit. SCC 10300603 Commercial Boilers - Less Than 10 MMBtu/Hr - Natural Gas emission factors were used to estimate emissions. Air Chief's FIRE database was used as the basis for the emission factors. Heating value of natural gas used was 1000 MMBtu/MMCF.

3) Potential VOC emissions were based on the highest throughput and the highest emission factor for the varieties produced by each of the ovens. VOC emissions from baking in ovens combined is limited to 90 tons per 13 4-week period rolling total. Actual VOC emissions were based on the actual throughput and actual emission factors estimated from EPA's Alternative Control Technology for Bakery Ovens.

Based on stack testing at other bakeries, particulate emissions were non-detectable according to a conversation with the American Bakers Association. Estimated maximum emissions were assumed to be below 0.55 pounds per hour, but 0.55 pounds per hour was used for estimating potential emissions. For worse case emissions, all particulate matter was assumed to be PM10.

4) The facility has two insignificant boilers, each less than 10 MMBtu/hr, that have the ability to run on natural gas and fuel oil if the tank used to supply the fuel oil was connected to the boilers. SCC 10200603 Industrial Boilers - Less Than 10 MMBtu/Hr - Natural Gas and SCC 10200503 Industrial Boilers - Less Than 10 MMBtu/Hr - Distillate Oil emission factors were used, respectively. Emissions of PM10 and VOC when the boilers are burning natural gas are included in the facility's potential to emit. Emissions of all other pollutants when the boilers burn fuel oil are included in the potential to emit calculation.

5) Potential throughput for the underground storage tank used to fuel mobile equipment was estimated by scaling the ratio of 1995 actual diesel usage in mobile equipment to 1995 actual production by potential production for both ovens combined. The emission factor was obtained from SCC 40400414 Underground Tanks - Distillate Fuel #2 Working Loss. Breathing losses from underground tanks are negligible.

Because potential emissions from each tank is less than 10 pounds per day, both tanks qualify as de minimis emission units.

6) Potential ink and makeup solution usages were determined by scaling the ratio of 1995 actual usages to 1995 production and potential production from the bread and roll ovens combined. To determine emission factors used to calculate potential emissions, worst case VOC and HAP weight percents from the MSDS were used. Actual emissions were based on average percentages.

Potential emissions were determined to be less than 10 pounds per day of VOCs and less than 1 ton per year of all HAPs combined. As such, the label printers were classified as de minimis.

7) Potential degreaser usage was determined by scaling the ratio of 1995 actual usage before waste was collected to 1995 production and potential production from the bread and roll ovens combined. Actual emissions were based on actual usage and used solvent shipped as waste.

Based on a discussion with Ohio EPA, the parts washer must be considered an insignificant activity even though its emissions are such that it qualifies as de minimis. The reason for this is that it must comply with 3745-21-09(O) to be classified as insignificant instead of being only a size, emission or production exemption.

8) Insignificant activities included in this emission point include shipping dock and office natural gas space heaters, each less than 10 MMBtu/hr. SCC 10500106 External Combustion Boilers - Space Heaters - Industrial - Natural Gas emission factors were used.

9) The chains of the ovens must be lubricated to keep the oven chains operating properly. Typical usage is 16 gallons per week for both ovens combined. Hourly usage was estimated by dividing chain lube oil used per lube for both ovens by the amount of time between lubrication of the chains.

10) Potential diesel usage for the tank in the boiler room was estimated by assuming that it is connected to the boilers and that both boilers are running on diesel 8760 hours per year. Emission factors were obtained from SCC 40301021 Distillate Fuel #2: Working Loss and SCC 40301019 Distillate Fuel #2: Breathing Loss. The tank qualifies as a de minimis activity.

11) See 5). The emission factor for dispensing diesel into trucks was assumed to be the same as loading diesel into tanks (SCC 40301021 Distillate Fuel Oil #2: Working Loss.) Breathing losses were considered negligible. The tank is classified as de minimis based on potential emissions.

12) An emission factor for pneumatically conveying flour was not available. The emission factors used were obtained from AP42 Concrete Batching Cement Unloading to Elevated Storage Silo: Pneumatic. Based upon verbal guidance from EPA, the PM10 emission factor is believed to constitute 80% of TSP for cement management.

The flour bins and mixers vent indoors through breather bags to control loss of flour during transferring. Credit for both the breather bags and the fact that the emissions occur indoors were included in controlled emission calculations. All filters are in operation and torn bags or bags that are blown off during transferring operations are replaced to control indoor air quality as well

as to prevent loss of raw material. Also, the amount of flour received and transferred is bottlenecked by the ovens. Potential flour usage is based on the variety of bread and the variety of rolls which have the potential to use the most flour if they are the only varieties baked in their respective ovens. It is assumed that 60% of the dough weight is flour. Actual emissions and recordkeeping of the quantity of flour received and maintenance performed on the breather bags qualify the flour handling units as de minimis activities.