

Section ? : Bakeries

Based on STI CCOS II Area Source Project

EMISSION INVENTORY SOURCE CATEGORY

Small-scale and large-scale bakeries

EMISSION INVENTORY CODES (CES CODES) AND DESCRIPTION

420-412-6012-0000 (57349) – Food and Agriculture, Bakeries

METHOD SUMMARY

The amount of bread produced by commercial bakeries in California was determined by multiplying the value of shipments in 1997 by the ratio of lbs/\$ for each product type. Retail bakery production in California was disaggregated from nationwide data. Production for Sacramento County was determined by proportioning out the number of employees in small vs. large establishments using counts of facilities by staff size, then distributing employment numbers by type of facility, either commercial or retail.

2000 Estimated VOC Emissions from the Production of Leavened Bread Products

VOC Emissions from Commercial Manufacturing Operations (tons)		VOC Emissions from Retail Manufacturing Operations (tons)		VOC Emissions from the Retail Sector (tons)	Total VOC Emissions (tons)
Small Establishments	Large Establishments	Small Establishments	Large Establishments		
4.83	24.11*	1.39	0.00	4.81	35.14

*controlled emissions from point source inventory

ACTIVITY DATA SOURCE: Quantity of bread baked by small and large facilities as determined by value of products shipped (manufacturing bakeries) and sold (retail bakeries), and employment and facility counts

EMISSION FACTOR SOURCE: Mid-range EIIP emission factors; assume large-scale bakeries with >50 employees use sponge-dough process (1 #/ton) and all others use the straight-dough process (13 #/ton)

TEMPORAL INFORMATION: Daily Activity:
Weekly Activity:
Monthly Activity:

MOST RECENT UPDATE: 2000 STI calculations

GROWTH PARAMETER: Sales of retail and commercial bread products

Month	1	2	3	4	5	6	7	8	9	10	11	12
%	7.4	7.65	8.19	8.23	8.37	8.29	8.14	8.49	8.29	8.74	8.62	9.56

EMISSION SUMMARY (2000 ANNUAL AVERAGE TONS/DAY) UNRECONCILED

CES#	TOG	ROG	CO	NOX	SOX	PM	PM10
57349	0.0963	0.0963	--	--	--	0.0005	0.0005

NEEDED CLARIFICATIONS/CORRECTIONS TO CURRENT METHOD

Control is required on large bakeries in the point source inventory. Add commercial manufacturing, small commercial, and retail sector as point sources and report the sum as unreconciled bakery emissions.

FUTURE PLANS FOR METHOD UPDATE/REVISION

None