

AIR QUALITY PERMIT

Issued to: Interstate Brands Corporation
5150 Midland Road
Billings, MT 59108

Permit: # 3107-00
Application Submitted: 3/28/00
Preliminary Determination Issued: 4/26/00
Department Decision Issued: 5/12/00
Permit Final: 5/28/00
AFS #: 111-0028

An air quality permit, with conditions, is hereby granted to the Interstate Brands Corporation Sweetheart Bakery facility in Billings, Montana, hereinafter referred to as "Sweetheart Bakery," pursuant to Sections 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and Administrative Rules of Montana (ARM) 17.8.701, *et seq.*, as amended, for the following:

SECTION I: Permitted Facilities

- A. Plant Location: The Sweetheart Bakery facility is located at 5150 Midland Road in Billings, Montana. The legal location of the facility is Section 17, Township 1 South, Range 26 East, Yellowstone County, Montana.
- B. Permitted Equipment: Two Cleaver-Brooks natural gas boilers, one bread oven, one roll oven, five flour silos, three diesel fuel tanks and associated equipment. A complete list of permitted equipment can be found in Section I.B of the permit analysis.
- C. Current Permit Action: This current permitting action is a transfer of permitting authority from Yellowstone County to the State of Montana. The facility has not changed its operation or configuration, but the existing Yellowstone County permit must be re-issued as a state permit. Permit #3107-00 replaces all Yellowstone County and any other air quality permits held by the Sweetheart Bakery facility located in Billings.

SECTION II: Conditions and Limitations

A. Emission Control Requirements and Limitations

1. Sweetheart Bakery may not cause or authorize the use of any street, road, or parking area without taking reasonable precautions to control emissions of airborne particulate matter [ARM 17.8.308].
2. Sweetheart Bakery shall treat all unpaved portions of the haul roads, access roads, and the general plant property with water and/or chemical dust suppressant as necessary to maintain compliance with the reasonable precautions limitations in Section II.A.1 [ARM 17.8.710].
3. Sweetheart Bakery shall not cause or authorize the production, handling, transportation, or storage of any material unless reasonable precautions to control particulate matter are taken. Such emissions of airborne particulate matter from any stationary source shall not exceed an opacity of 20% or greater averaged over six (6) consecutive minutes [ARM 17.8.308].
4. Sweetheart Bakery shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over six (6) consecutive minutes [ARM 17.8.304].
5. Sweetheart Bakery shall limit the production of bread and rolls to correspond to a VOC emission level that does not exceed 100 tons during any rolling 12-month period. Any

calculations used to establish production levels shall be approved by the Department of Environmental Quality (department) [ARM 17.8.710].

6. The diesel generator shall only be used as backup or in emergency situations [ARM 17.8.710].

B. Testing Requirements

1. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual [ARM 17.8.106].
2. The department may require testing [ARM 17.8.105].

C. Operational and Emission Inventory Reporting Requirements

1. Sweetheart Bakery shall supply the department with annual production information for all emission points, as required by the department in the annual emission inventory request. The request will include, but is not limited to, all sources of emissions identified in the equipment list contained in Section I.B. of the permit analysis.

Production information shall be gathered on a calendar-year basis and submitted to the department by the date required in the emission inventory request. Information shall be in the units required by the department. This information may be used for calculating operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations [ARM 17.8.505].

2. Sweetheart Bakery shall notify the department of any construction or improvement project conducted, pursuant to ARM 17.8.705(1)(r), that would include a change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation or the addition of a new emissions unit. The notice must be submitted to the department, in writing, 10 days prior to start up or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.705(1)(r)(iv) [ARM 17.8.705].
3. All records compiled in accordance with this permit must be maintained by Sweetheart Bakery as a permanent business record for at least five years following the date of the measurement, must be available at the plant site for inspection by the department, and must be submitted to the department upon request [ARM 17.8.710].
4. Sweetheart Bakery shall document, by month, the production and corresponding VOC emission levels. By the 25th of each month, Sweetheart Bakery shall total the production and corresponding VOC emission levels for the previous twelve months to verify compliance with the limitation in Sections II.A.5. A written report of the compliance verification shall be submitted to the department annually, along with the annual emissions inventory [ARM 17.8.710].
5. Sweetheart Bakery shall annually certify that its actual emissions are less than those that would require the source to obtain an air quality operating permit as required by ARM 17.8.1204(3)(b). The annual certification shall comply with the certification requirements of ARM 17.8.1207. The annual certification shall be submitted with the annual emission inventory information [ARM 17.8.710].

SECTION III: General Conditions

- A. Inspection – Sweetheart Bakery shall allow the department's representatives access to the source at all times for the purpose of making inspections and surveys, collecting samples, obtaining data, auditing any monitoring equipment (CEMS, CERMS) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.
- B. Waiver – The permit and all the terms, conditions, and matters stated herein shall be deemed accepted if Sweetheart Bakery fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving Sweetheart Bakery of the responsibility for complying with any applicable federal or Montana statute, rule or standard, except as specifically provided in ARM 17.8.701, *et seq.* [ARM 17.8.717].
- D. Enforcement – Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties or other enforcement as specified in Section 75-2-401, *et seq.*, MCA.
- E. Appeals – Any person or persons jointly or severally adversely affected by the department's decision may request, within fifteen (15) days after the department renders its decision, upon affidavit setting forth the grounds therefor, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The department's decision on the application is not final unless fifteen (15) days have elapsed and there is no request for a hearing under this section. The filing of a request for a hearing postpones the effective date of the department's decision until the conclusion of the hearing and issuance of a final decision by the Board.
- F. Permit Inspection – As required by ARM 17.8.716, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by department personnel at the location of the permitted source.
- G. Permit Fee – Pursuant to Section 75-2-220, MCA, as amended by the 1991 Legislature, failure to pay the annual operation fee by Sweetheart Bakery may be grounds for revocation of this permit, as required by that Section and rules adopted thereunder by the Board.

PERMIT ANALYSIS
Interstate Brands Corporation – Sweetheart Bakery
Permit #3107-00

I. Introduction/Process Description

A. Site Location and Description

The facility is located at 5150 Midland Road in Billings, Montana. The facility is a commercial bakery that produces bread and rolls for commercial distribution to outlet stores and grocery retailers. In a typical process, flour, water, yeast and salt are combined in various amounts to produce different products. Ferment time varies from 2.5 to 3.5 hours and proof time is generally less than one hour.

B. Permitted Equipment

Equipment used at this facility includes all equipment listed in the permit application #3107-00, including, but not limited to:

1. Two Cleaver-Brooks natural gas Boilers with standby No. 2 fuel oil capabilities;
2. One Bread Oven;
3. One Roll Oven;
4. Five Flour Silo's;
5. One Emergency Diesel Generator;
6. Three Aboveground Diesel Fuel Storage Tanks;
7. Five Videojet Product Coders; and
8. Two Parts Washers.

C. Current Permit Action

The current permitting action is a transfer of permitting authority from Yellowstone County to the State of Montana. The facility has not changed its operation or configuration, but the existing Yellowstone County permit must be reissued as a state permit. Permit **#3107-00** replaces all Yellowstone County and any other air quality permits held by the Billings Sweetheart Bakery facility.

II. Applicable Rules and Regulations

The following are partial explanations of some applicable rules and regulations which apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available upon request from the department. Upon request, the department will provide references for location of complete copies of all applicable rules and regulations or copies where appropriate.

A. ARM 17.8.101, *et seq.* (Subchapter 1), General Provisions, including, but not limited to:

1. ARM 17.8.101, Definitions. This section includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.

2. ARM 17.8.105, Testing Requirements. Any person or persons responsible for the emissions of any air contaminant into the outdoor atmosphere shall, upon written request of the department, provide the facilities and necessary equipment (including instruments

and sensing devices) and shall conduct tests, emission or ambient, for such periods of time as may be necessary, using methods approved by the department. The department has determined, for the current permitting action, that no testing is required.

3. ARM 17.8.106, Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by the department, any source, or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq.*, MCA.

Sweetheart Bakery shall comply with the requirements contained in the Montana Source Test Protocol and Procedures Manual, including, but not limited to, using the proper test methods and supplying the required reports. A copy of the Montana Source Test Protocol and Procedures Manual is available from the department upon request.

4. ARM 17.8.110, Malfunctions. (2) The department must be notified promptly by phone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation, or to continue for a period greater than four (4) hours.
5. ARM 17.8.111, Circumvention. (1) No person shall cause or permit the installation or use of any device or any means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant which would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner that a public nuisance is created.

- B. ARM 17.8.201, et seq. (Subchapter 2), Ambient Air Quality. The following ambient air quality standards or requirements apply, including, but not limited to:

1. ARM 17.8.204, Ambient Air Monitoring;
2. ARM 17.8.210, Ambient Air Quality Standards for Sulfur Dioxide;
3. ARM 17.8.211, Ambient Air Quality Standards for Nitrogen Dioxide;
4. ARM 17.8.212, Ambient Air Quality Standards for Carbon Monoxide;
5. ARM 17.8.213, Ambient Air Quality Standard for Ozone;
6. ARM 17.8.214, Ambient Air Quality Standard for Hydrogen Sulfide;
7. ARM 17.8.220, Ambient Air Quality Standard for Settled Particulate Matter;
8. ARM 17.8.221, Ambient Air Quality Standard for Visibility;
9. ARM 17.8.222, Ambient Air Quality Standard for Lead;
10. ARM 17.8.223, Ambient Air Quality Standard for PM₁₀; and
11. ARM 17.8.230, Fluoride in Forage.

Sweetheart Bakery must maintain compliance with the applicable ambient air quality standards.

- C. ARM 17.8.301, et seq. (Subchapter 3), Emission Standards, including, but not limited to:

1. ARM 17.8.304, Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged into an outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over six (6) consecutive minutes.
2. ARM 17.8.308, Particulate Matter, Airborne. (1) This section requires an opacity limitation of 20% for all fugitive emissions sources and that reasonable precautions be taken to control emissions of airborne particulate. (2) Under this section, Sweetheart Bakery shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.

3. ARM 17.8.309, Particulate Matter, Fuel Burning Equipment. This section requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this section.
 4. ARM 17.8.310, Particulate Matter, Industrial Process. This section requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter in excess of the amount set forth in this section.
 5. ARM 17.8.315, Emission Standards – Odors. This rule requires that no person shall cause, suffer, or allow any emissions of gases, vapors, or odors beyond his property line in such manner as to create a public nuisance. A person operating any business or using any machine, equipment, device, facility or process which discharges into the outdoor air any odorous matter or vapors, gases, dusts, or any combination thereof, which create odors, shall provide, properly install, and maintain in good working order and operation such odor control devices or procedures as may be specified by the department.
 6. ARM 17.8.322, Sulfur Oxide Emissions - Sulfur in Fuel. This section requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth in this section.
 7. ARM 17.8.324(3), Hydrocarbon Emissions - Petroleum Products. No person shall load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such a tank is equipped with a vapor loss control device as described in (1) of this rule.
 8. ARM 17.8.340, Standard of Performance for New Stationary Sources. This section incorporates, by reference, 40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS). This facility is not an NSPS affected source because it does not meet the definition of any NSPS Subpart defined in 40 CFR Part 60.
- D. ARM 17.8.501, et seq. (Subchapter 5), Air Quality Permit Application, Operation and Open Burning Fees, including, but not limited to:
1. ARM 17.8.504, Air Quality Permit Application Fees. This section requires that an applicant submit an air quality permit application fee concurrent with the submittal of an air quality permit application. This current permitting action is a result of the change in permitting authority from Yellowstone County to the State of Montana. There is no application fee associated with this action.
 2. ARM 17.8.505, Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the department by each source of air contaminants holding an air quality permit, excluding an open burning permit, issued by the department; and the air quality operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, described above, shall take place on a calendar-year basis. The department may insert into any final permit issued after the effective date of these rules such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions which pro-rate the required fee amount.

- E. ARM 17.8.701, *et seq.* (Subchapter 7), Permit, Construction and Operation of Air Contaminant Sources, including, but not limited to:
1. ARM 17.8.701, Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
 2. ARM 17.8.704, General Procedures for Air Quality Preconstruction Permitting. This air quality preconstruction permit contains requirements and conditions applicable to both construction and subsequent use of the permitted equipment.
 3. ARM 17.8.705, When Permit Required, Exclusions. This rule requires a facility to obtain an air quality permit or permit alteration if they construct, alter, or use any air contaminant sources which have the potential to emit more than 25 tons per year of any pollutant. Sweetheart Bakery has the potential to emit greater than 25 tons per year of VOC; therefore, a permit is required.
 4. ARM 17.8.707, Waivers. ARM 17.8.706 requires the permit application be submitted 180 days prior to construction. The department hereby waives this time limit.
 5. ARM 17.8.710, Condition of Issuance of Permit. This section requires that Sweetheart Bakery demonstrate compliance with applicable rules and standards before a permit can be issued. Also, a permit may be issued with such conditions as are necessary to assure compliance with all applicable rules and standards. Sweetheart Bakery has demonstrated compliance with applicable rules and standards as required for permit issuance
 6. ARM 17.8.715, Emission Control Requirements. This section requires a source to install the maximum air pollution control capability which is technically practicable and economically feasible, except that best available control technology (BACT) shall be utilized. A BACT analysis was conducted for sources of particulate matter at this facility. The BACT analysis can be found in Section IV.
 7. ARM 17.8.716, Inspection of Permit. This rule requires that air quality permits shall be made available for inspection by the department at the location of the source.
 8. ARM 17.8.717, Compliance with Other Statutes and Rules. This rule states that nothing in the permit shall be construed as relieving Sweetheart Bakery of the responsibility for complying with any applicable federal and Montana statutes, rules and standards, except as specifically provided in ARM 17.8.101, *et seq.*
 9. ARM 17.8.720, Public Review of Permit Applications. This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. Sweetheart Bakery will not be required to submit a legal publication because they complied with this requirement when Yellowstone County issued the original permit.
 10. ARM 17.8.731, Duration of Permit. An air quality permit shall be valid until revoked or modified as provided in this subchapter, except that a permit issued prior to construction of a new or altered source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than one (1) year after the permit is issued.
 11. ARM 17.8.733, Modification of Permit. An air quality permit may be modified for changes in any applicable rules and standards adopted by the Board or changed conditions of

operation at a source or stack which do not result in an increase in emissions because of those changed conditions. A source may not increase its emissions beyond those found in its permit unless the source applies for and receives another permit.

12. ARM 17.8.734, Transfer of Permit. This section states an air quality permit may be transferred from one person to another if written notice of intent to transfer, including the names of the transferor and the transferee, is sent to the department.

F. ARM 17.8.801, *et seq.* (Subchapter 8), Prevention of Significant Deterioration of Air Quality, including, but not limited to:

ARM 17.8.801, Definitions. This rule is a list of applicable definitions used in this subchapter.

This facility is not a PSD source since this facility is not a listed source and the site's potential to emit is below 250 tons per year of any pollutant.

III. Emission Inventory

SOURCE	(tons/year)					
	NOx	SOx	CO	VOC	PM-10	PM
Boiler #1 - natural gas	2.80	0.017	2.40	0.15	0.018	----
Boiler #1 - fuel oil	0.10	0.73	0.025	0.002	----	0.01
Boiler #2 - natural gas	2.80	0.017	2.40	0.15	0.018	----
Boiler #2 - fuel oil	0.10	0.73	0.025	0.002	----	0.01
Bread Oven	2.68	0.016	2.25	0.15	0.017	----
Roll Oven	1.12	0.007	0.94	0.06	0.007	----
Bread baking	----	----	----	60.00	----	----
Roll baking	----	----	----	29.00	----	----
Flour Silo's (5)	----	----	----	----	0.03	0.14
Emergency Generator	3.291	0.22	0.71	0.26	0.23	----
Diesel Fuel Tanks	----	----	----	0.009	----	----
Videojet Product Coder (5)	----	----	----	0.58	----	----
Parts Washer	----	----	----	0.13	----	----
TOTAL	12.89	1.78	8.75	90.49	0.353	0.16

Boiler #1 - Natural Gas

Heat Content: 980 Btu/scf

Maximum Rated Design Capacity: 6.277 MMBtu/hr = 56.1 MMscf/yr

$(6,277,000 \text{ Btu/hr}) * (\text{scf}/980 \text{ Btu}) * (8760 \text{ hr/yr}) = 56.1 \text{ MMscf/yr}$

NOx: Emission Factor 100 lbs/MMscf (SCC 1-03-006-03, AP-42, Table 1.4-1, 7/98)

$56.1 \text{ MMscf/yr} * 100 \text{ lbs/MMscf} * \text{ton}/2000 \text{ lbs} = 2.8 \text{ tpy}$

CO: Emission Factor 84 lbs/MMscf (SCC 1-03-006-03, AP-42, Table 1.4-1, 7/98)

$56.1 \text{ MMscf/yr} * 84 \text{ lbs/MMscf} * \text{ton}/2000 \text{ lbs} = 2.4 \text{ tpy}$

SOx: Emission Factor 0.6 lbs/MMscf (SCC 1-03-006-03, AP-42, Table 1.4-2, 7/98)

$56.1 \text{ MMscf/yr} * 0.6 \text{ lbs/MMscf} * \text{ton}/2000 \text{ lbs} = 0.017 \text{ tpy}$

VOC: Emission Factor 5.5 lbs/MMscf (SCC 1-03-006-03, AP-42, Table 1.4-2, 7/98)

$56.1 \text{ MMscf/yr} * 5.5 \text{ lbs/MMscf} * \text{ton}/2000 \text{ lbs} = 0.15 \text{ tpy}$

PM-10: Emission Factor 0.64 lbs/MMscf (SCC 1-03-006-03, AP-42, Table 1.4-2, 7/98)

$56.1 \text{ MMscf/yr} * 0.64 \text{ lbs/MMscf} * \text{ton}/2000 \text{ lbs} = 0.017 \text{ tpy}$

Boiler #2 - Natural Gas

Heat Content: 980 Btu/scf

Maximum Rated Design Capacity: 6.277 MMBtu/hr = 56.1

MMscf/yr

$(6,277,000 \text{ Btu/hr}) * (\text{scf}/980 \text{ Btu}) * (8760 \text{ hr/yr}) = 56.1 \text{ MMscf/yr}$

NOx: Emission Factor 100 lbs/MMscf (SCC 1-03-006-03, AP-42, Table 1.4-1, 7/98)

$56.1 \text{ MMscf/yr} * 100 \text{ lbs/MMscf} * \text{ton}/2000 \text{ lbs} = 2.8 \text{ tpy}$

CO: Emission Factor 84 lbs/MMscf

(SCC 1-03-006-03, AP-42, Table 1.4-1, 7/98)

$56.1 \text{ MMscf/yr} * 84 \text{ lbs/MMscf} * \text{ton}/2000 \text{ lbs} = 2.4 \text{ tpy}$

SOx: Emission Factor 0.6 lbs/MMscf

(SCC 1-03-006-03, AP-42, Table 1.4-2, 7/98)

$56.1 \text{ MMscf/yr} * 0.6 \text{ lbs/MMscf} * \text{ton}/2000 \text{ lbs} = 0.017 \text{ tpy}$

VOC: Emission Factor 5.5 lbs/MMscf

(SCC 1-03-006-03, AP-42, Table 1.4-2, 7/98)

$56.1 \text{ MMscf/yr} * 5.5 \text{ lbs/MMscf} * \text{ton}/2000 \text{ lbs} = 0.15 \text{ tpy}$

PM-10: Emission Factor 0.64 lbs/MMscf

(SCC 1-03-006-03, AP-42, Table 1.4-2, 7/98)

$56.1 \text{ MMscf/yr} * 0.64 \text{ lbs/MMscf} * \text{ton}/2000 \text{ lbs} = 0.017 \text{ tpy}$

Boiler #1 - Fuel Oil

Maximum Usage Rate: 10,080 gallons fuel oil/yr

NOx: Emission Factor 20 lbs/1000 gallons (SCC 1-03-005-02/03, Table 1.3-1, 9/98)

$(20 \text{ lbs}/1000\text{gal}) * (10,080 \text{ gal/yr}) * (\text{ton}/2000\text{lbs}) = 0.10 \text{ tpy}$

CO: Emission Factor 5 lbs/1000 gallons (SCC 1-03-005-02/03, Table 1.3-1, 9/98)

$(5 \text{ lbs}/1000\text{gal}) * (10080\text{gal/yr}) * (\text{ton}/2000\text{lbs}) = 0.025 \text{ tpy}$

SOx: Emission Factor (SCC 1-03-005-02/03, Table 1.3-1, 9/98)

SO₂ @ 142 lbs/1000gal; SO₃ @ 2 lbs/1000gal

$\text{SO}_2 = (142 \text{ lbs}/1000\text{gal}) * (10080\text{gal/yr}) * (\text{ton}/2000\text{lbs}) = 0.72 \text{ tpy}$

$\text{SO}_3 = (2 \text{ lbs}/1000\text{gal}) * (10080\text{gal/yr}) * (\text{ton}/2000\text{lbs}) = 0.01 \text{ tpy}$

VOC: Emission Factor 0.34 lbs/1000gal (SCC 1-03-005-02/03, AP-42, Table 1.3-3, 9/98)

$(0.34 \text{ lbs}/1000\text{gal}) * (10080\text{gal/yr}) * (\text{ton}/2000\text{lbs}) = 0.002 \text{ tpy}$

PM: Emission Factor 2 lbs/1000gal (SCC 1-03-005-02/03, Table 1.3-1, 9/98)

$(2 \text{ lbs}/1000\text{gal}) * (10080\text{gal/yr}) * (\text{ton}/2000\text{lbs}) = 0.01 \text{ tpy}$

Boiler #2 - Fuel Oil

Maximum Usage Rate: 10,080 gallons fuel oil/yr

NOx: Emission Factor 20 lbs/1000 gallons (SCC 1-03-005-02/03, Table 1.3-1, 9/98)

$(20 \text{ lbs}/1000\text{gal}) * (10,080 \text{ gal/yr}) * (\text{ton}/2000\text{lbs}) = 0.10 \text{ tpy}$

CO: Emission Factor 5 lbs/1000 gallons (SCC 1-03-005-02/03, Table 1.3-1, 9/98)

$(5 \text{ lbs}/1000\text{gal}) * (10080\text{gal/yr}) * (\text{ton}/2000\text{lbs}) = 0.025 \text{ tpy}$

SOx: Emission Factor (SCC 1-03-005-02/03, Table 1.3-1, 9/98)
SO₂ @ 142 lbs/1000gal; SO₃ @ 2 lbs/1000gal
SO₂ = (142 lbs/1000gal)*(10080gal/yr)*(ton/2000lbs) = 0.72 tpy
SO₃ = (2 lbs/1000gal)*(10080gal/yr)*(ton/2000lbs) = 0.01 tpy

VOC: Emission Factor 0.34 lbs/1000gal (SCC 1-03-005-02/03, AP-42, Table 1.3-3, 9/98)
(0.34 lbs/1000gal)*(10080gal/yr)*(ton/2000lbs) = 0.002 tpy

PM: Emission Factor 2 lbs/1000gal (SCC 1-03-005-02/03, Table 1.3-1, 9/98)
(2 lbs/1000gal)*(10080gal/yr)*(ton/2000lbs) = 0.01 tpy

Bread Oven Burner

Heat Content: 980 Btu/scf
Maximum Rated Design Capacity: 6,000,000 Btu/hr = 53.6 MMscf/yr
(6,000,000 Btu/hr)*(scf/980 Btu)*(8760 hr/yr) = 53,632,653 scf/yr

NOx: Emission Factor 100 lbs/MMscf (SCC 1-03-006-03, AP-42, Table 1.4-1, 7/98)
(53.6 MMscf/yr)*(100 lbs/MMscf)*(ton/2000lbs) = 2.68 tpy

CO: Emission Factor 84 lbs/MMscf (SCC 1-03-006-03, AP-42, Table 1.4-1, 7/98)
(53.6 MMscf/yr)*(84 lbs/MMscf)*(ton/2000lbs) = 2.25 tpy

SOx: Emission Factor 0.6 lbs/MMscf (SCC 1-03-006-03, AP-42, Table 1.4-2, 7/98)
(53.6 MMscf/yr)*(0.6 lbs/MMscf)*(ton/2000lbs) = 0.016 tpy

VOC: Emission Factor 5.5 lbs/MMscf (SCC 1-03-006-03, AP-42, Table 1.4-2, 7/98)
(53.6 MMscf/yr)*(5.5 lbs/MMscf)*(ton/2000lbs) = 0.15 tpy

PM-10: Emission Factor 0.64 lbs/MMscf (SCC 1-03-006-03, AP-42, Table 1.4-2, 7/98)
(53.6 lbs/MMscf)*(0.64 lbs/MMscf)*(ton/2000lbs) = 0.017 tpy

Bread Baking

Production Rate: 18750 tons bread/yr

VOC: Emission Factor: 6.4 # VOC/ton bread produced (facility supplied)
(6.4 lbs/ton)*(18750 ton/yr)*(ton/2000lbs) = 60.00 tpy

Roll Oven Burner

Heat Content: 980 Btu/scf
Maximum Rated Design Capacity: 2,500,000 Btu/hr = 22.3 MMscf/yr
(2,500,000 Btu/hr)*(scf/980 Btu)*(8760 hr/yr) = 22,346,938scf/yr

NOx: Emission Factor 100 lbs/MMscf (SCC 1-03-006-03, AP-42, Table 1.4-1, 7/98)
(22.3 MMscf/yr)*(100 lbs/MMscf)*(ton/2000lbs) = 1.12 tpy

CO: Emission Factor 84 lbs/MMscf (SCC 1-03-006-03, AP-42, Table 1.4-1, 7/98)
(22.3 MMscf/yr)*(84 lbs/MMscf)*(ton/2000lbs) = 0.94 tpy

SOx: Emission Factor 0.6 lbs/MMscf (SCC 1-03-006-03, AP-42, Table 1.4-2, 7/98)
(22.3 MMscf/yr)*(0.6 lbs/MMscf)*(ton/2000lbs) = 0.007 tpy

VOC: Emission Factor 5.5 lbs/MMscf (SCC 1-03-006-03, AP-42, Table 1.4-2, 7/98)
(22.3 MMscf/yr)*(5.5 lbs/MMscf)*(ton/2000lbs) = 0.061 tpy

PM-10: Emission Factor 0.64 lbs/MMscf (SCC 1-03-006-03, AP-42, Table 1.4-2, 7/98)
(22.3 lbs/MMscf)*(0.64 lbs/MMscf)*(ton/2000lbs) = 0.007 tpy

Roll Baking

Production Rate: 9355 ton rolls/year

VOC: Emission Factor: 6.2 lbs VOC/ton bread produced (facility supplied)
 $(6.2 \text{ lbs/ton}) \times (9355 \text{ ton/yr}) \times (\text{ton}/2000\text{lbs}) = 29.00 \text{ tpy}$

Flour Silo's (5)

Product Loadout

Maximum annual throughput = 13811.7 ton/year

Adjusted maximum annual throughput * 1.2 = 16,574.04 tons/yr

PM: Emission Factor 0.0033 lbs/ton (AP-42, Table 9.9.1-2, 5/98)
 $(16574.04 \text{ ton/yr}) \times (0.0033 \text{ lbs/ton}) \times (\text{ton}/2000\text{lbs}) \times (5 \text{ silo's}) = 0.14 \text{ tpy}$

PM-10: Emission Factor 0.0008 lbs/ton (AP-42, Table 9.9.1-2, 5/98)
 $(16574.04 \text{ ton/yr}) \times (0.0008 \text{ lbs/ton}) \times (\text{ton}/2000\text{lbs}) \times (5 \text{ silo's}) = 0.03 \text{ tpy}$

Emergency Generator

425 hp; 1800 rpm

NOx: Emission Factor 0.031 lbs/hp-hr (SCC 2-02-001-02, AP-42 Table 3.3-1, 10/96)
 $(425 \text{ hp}) \times (0.031 \text{ lbs/hp-hr}) \times (\text{ton}/2000\text{lbs}) \times (500 \text{ hr/yr}) = 3.29 \text{ tpy}$

CO: Emission Factor 0.00668 lbs/hp-hr (SCC 2-02-001-02, AP-42 Table 3.3-1, 10/96)
 $(425 \text{ hp}) \times (0.00668 \text{ lbs/hp-hr}) \times (\text{ton}/2000\text{lbs}) \times (500 \text{ hr/yr}) = 0.71 \text{ tpy}$

SOx: Emission Factor 0.00205 lbs/hp-hr (SCC 2-02-001-02, AP-42 Table 3.3-1, 10/96)
 $(425 \text{ hp}) \times (0.00205 \text{ lbs/hp-hr}) \times (\text{ton}/2000\text{lbs}) \times (500 \text{ hr/yr}) = 0.22 \text{ tpy}$

VOC: Emission Factor 0.00247 lbs/hp-hr (SCC 2-02-001-02, AP-42 Table 3.3-1, 10/96)
 $(425 \text{ hp}) \times (0.00247 \text{ lbs/hp-hr}) \times (\text{ton}/2000\text{lbs}) \times (500 \text{ hr/yr}) = 0.26 \text{ tpy}$

PM-10: Emission Factor 0.0022 lbs/hp-hr (SCC 2-02-001-02, AP-42 Table 3.3-1, 10/96)
 $(425 \text{ hp}) \times (0.0022 \text{ lbs/hp-hr}) \times (\text{ton}/2000\text{lbs}) \times (500 \text{ hr/yr}) = 0.23 \text{ tpy}$

Diesel Fuel Tanks (3)

6,000-gallon aboveground storage tanks

Maximum Combined Annual Thruput @ 600,060 gal/yr

VOC: Emission Factor 0.03 lbs/1000gal (AP-42, Table 5.2-5, 1/95)
 $(600,060 \text{ gal/yr}) \times (0.03 \text{ lbs}/1000\text{gal}) \times (\text{ton}/2000\text{lbs}) = 0.009 \text{ tpy}$

Parts Washers (2)

20-gallon product use per washer per year

VOC: Emission Factor 6.7 lbs/gal (Manufacturer MSDS)
 $(40 \text{ gal/yr}) \times (6.7 \text{ lbs/gal}) \times (\text{ton}/2000\text{lbs}) = 0.134 \text{ tpy}$

Videojet Product Coders (5)

Maximum Annual Product Use: 18.6 gal/yr/coder

VOC: Emission Factor 6.7 lbs/gal (Manufacturer MSDS)

IV. BACT Analysis

A BACT determination is required for any new or altered source. Sweetheart Bakery shall install on the new or altered source the maximum air pollution control capability which is technologically practicable and economically feasible, except that BACT shall be used. This permitting action does not constitute a new or altered source; therefore, the department will accept the original BACT determination done as part of Sweetheart Bakery's Yellowstone County air quality permit.

The control options that have been selected have controls and control costs similar to other recently permitted similar sources and are capable of achieving the appropriate emissions standards.

V. Existing Air Quality and Impacts

The area surrounding the Sweetheart Bakery facility is mainly industrial. The current permitting action will not result in an increase in emissions from the facility. In the view of the department, the amount of controlled emissions from this facility will not cause an exceedance to any ambient air quality standard.

VI. Taking or Damaging Implication Analysis

As required by 2-10-101 through 105, MCA, the department has conducted a private property taking and damaging assessment and has determined there are no taking or damaging implications.

VII. Environmental Assessment

This permitting action will not result in an increase of emissions from the facility. An environmental assessment, required by the Montana Environmental Policy Act, was completed for this permitting action. A copy is attached.

DEPARTMENT OF ENVIRONMENTAL QUALITY
 Permitting and Compliance Division
 Air and Waste Management Bureau
 P.O. Box 200901, Helena, Montana 59620
 (406) 444-3490

FINAL ENVIRONMENTAL ASSESSMENT (EA)

Issued For: Interstate Brands Corporation – Sweetheart Bakery
 5150 Midland Road
 P.O. Box 81250
 Billings, Montana 59108

Air Quality Permit Number: #3107-00

Preliminary Determination Issued: 4/26/00
 Department Decision Issued: 5/12/00
 Final Permit Issued: 5/28/00

Montana Environmental Policy Act (MEPA) compliance: An environmental assessment required by MEPA was completed for this project as follows.

Legal Description of Site: The Sweetheart Bakery facility is located in Section 17, Township 1 South, Range 26 East, Yellowstone County, Montana.

Description of Project: The current permitting action is a transfer of permitting authority from Yellowstone County to the State of Montana.

Benefits and Purpose of Proposal: The bakery produces bread and rolls for commercial distribution to outlet stores and grocery retailers. This permit is for the continued operation of the commercial bakery facility.

Description and analysis of reasonable alternatives whenever alternatives are reasonably available and prudent to consider: No reasonable alternatives available.

A listing of appropriate evaluation of mitigation, stipulations, and other controls enforceable by the agency or another government agency: A list of enforceable conditions is contained in Permit #3107-00.

Description and analysis of regulatory impacts on private property rights: The department has considered alternatives to the conditions imposed in this permit as part of the permit development. The department has determined that the permit conditions are reasonably necessary to ensure compliance with applicable requirements and demonstrate compliance with those requirements and do not unduly restrict private property rights.

Potential Impact on Physical Environment							
		Major	Moderate	Minor	None	Unknown	Comments

1	Terrestrial and Aquatic Life and Habitats				X		Included yes
2	Water Quality, Quantity and Distribution				X		yes
3	Geology and Soil Quality, Stability and Moisture				X		yes
4	Vegetation Cover, Quantity and Quality				X		yes
5	Aesthetics				X		yes
6	Air Quality				X		yes
7	Unique Endangered, Fragile or Limited Environmental Resource				X		yes
8	Demands on Environmental Resource of Water, Air and Energy				X		yes
9	Historical and Archaeological Sites				X		yes
10	Cumulative and Secondary Impacts				X		yes

Potential Impact on Human Environment							
		Major	Moderate	Minor	None	Unknown	Comments Included
1	Social Structures and Mores				X		yes
2	Cultural Uniqueness and Diversity				X		yes
3	Local and State Tax Base and Tax Revenue				X		yes
4	Agricultural or Industrial Production				X		yes
5	Human Health				X		yes
6	Access to and Quality of Recreational and Wilderness Activities				X		yes
7	Quantity and Distribution of Employment				X		yes
8	Distribution of Population				X		yes
9	Demands for Government Services				X		yes
10	Industrial and Commercial Activity				X		yes
11	Locally Adopted Environmental Plans and Goals				X		yes
12	Cumulative and Secondary Impacts				X		yes

SUMMARY OF COMMENTS ON POTENTIAL IMPACTS: The following comments have been prepared by the Department.

POTENTIAL IMPACT ON PHYSICAL ENVIRONMENT

1. Terrestrial and Aquatic Life and Habitats

Terrestrials will use the areas in which the bakery facility is located. However, the current permit action is for the continued operation of an established commercial bakery and will not impact the terrestrial life.

2. Water Quality, Quantity and Distribution

The department has determined that the current permitting action will have no impact to water quality, quantity, and distribution. The current permitting action is for the continued operation of an established commercial bakery.

3. Geology and Soil Quality, Stability and Moisture

The department has determined that the current permitting action will have no impact to the soils around the facility. The current permitting action is for the continued operation of an established commercial bakery.

4. Vegetation Cover, Quantity and Quality

The department has determined that the current permitting action will have no impact on the vegetative cover around the facility. The current permitting action is for the continued operation of an established commercial bakery.

5. Aesthetics

The department has determined that the current permitting action will have no impact on the aesthetics around the facility. The current permitting action is for the continued operation of an established commercial bakery.

6. Air Quality

The department has determined that the current permitting action will have no impact on the air quality surrounding the facility. The current permitting action is for the continued operation of an established commercial bakery. Additionally, permit #3107-00 includes conditions limiting the opacity from the facility.

7. Unique Endangered, Fragile or Limited Environmental Resources

The department has determined that the current permitting action will not affect any unique, endangered, fragile, or limited environmental resources. The current permitting action is for the continued operation of an established commercial bakery.

8. Demands on Environmental Resource of Water, Air and Energy

The department has determined that the current permitting action will not result in an increase in the demands on environmental resources of water, air, and energy. The current permitting action is for the continued operation of an established commercial bakery.

9. Historical and Archaeological Sites

The department has determined that the current permitting action will have no impact on historical and archaeological sites around the facility. The current permitting action is for the continued operation of an established commercial bakery.

10. Cumulative and Secondary Impacts

The department has determined that the current permitting action will have no cumulative and secondary impacts around the facility. The current permitting action is for the continued operation of an established commercial bakery.

POTENTIAL IMPACT ON HUMAN ENVIRONMENT

1. Social Structures and Mores

In the view of the department, the continued operation of the commercial bakery will cause no disruption to native or traditional lifestyles or communities of any potential site or area of operation

2. Cultural Uniqueness and Diversity

In the view of the department, it is unlikely the continued operation of the commercial bakery will have an adverse impact on the cultural uniqueness and diversity of any proposed area of operation.

3. Local and State Tax Base and Tax Revenue

The continued operation of the commercial bakery will have little, if any effect on local and state tax base and tax revenue. The facility is an established operation that serves a need and generates local revenue in the process.

4. Agricultural or Industrial Production

The department does not expect that the permitted operation will adversely affect or displace any agricultural land.

5. Human Health

Permit #3107-00 incorporates conditions to ensure that the facility will be operated in compliance with all applicable rules and standards. These rules and standards are designed to be protective of human health.

6. Access to and Quality of Recreational and Wilderness Activities

The department has determined that the continued operation of the commercial bakery will not have any effect on the access to and quality of recreational and wilderness activities.

7. Quantity and Distribution of Employment

The continued operation of the commercial bakery facility will not affect the quantity and distribution of employment in the area.

8. Distribution of Population

The continued operation of the commercial bakery facility will not disrupt the normal population distribution in the area.

9. Demands of Government Services

The department has determined that the current permitting action will not increase the demands of government services. The current permitting action is for the continued operation of an established commercial bakery facility.

10. Industrial and Commercial Activity

The department has determined that the continued operation of the established commercial bakery facility will not result in an increase in the industrial and commercial activity in the area.

11. Locally Adopted Environmental Plans and Goals

The department has determined that the continued operation of the commercial bakery will not affect any locally adopted environmental plans or goals. The state standards will protect the site and the environment surrounding the site.

12. Cumulative and Secondary Impacts

The department has determined that the current permitting action will not result in cumulative and secondary impacts. The current permitting action is for the continued operation of a commercial bakery.

Recommendation: No EIS is required.

If an EIS is not required, explain why the EA is an appropriate level of analysis: The current permitting action is for the continued operation of an established commercial bakery. Permit #3107-00 includes conditions and limitations, which, if properly applied, will safeguard any potential environmental threat created by the continued operation of the facility.

Other groups or agencies contacted or which may have overlapping jurisdiction: None

Individuals or groups contributing to this EA: Department of Environmental Quality, Air and Waste Management Bureau

EA prepared by: Mary Louise Hendrickson
Date: April 18, 2000.