



Montana Department of  
**ENVIRONMENTAL QUALITY**

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February 16, 2012

Mr. Jeff Bleeker  
Interstate Brands Corporation  
5150 Midland Road  
Billings, MT 59108

Dear Mr. Bleeker:

Montana Air Quality Permit #3107-01 is deemed final as of February 16, 2012, by the Department of Environmental Quality (Department). This permit is for a commercial bakery. All conditions of the Department's Decision remain the same. Enclosed is a copy of your permit with the final date indicated.

For the Department,

Vickie Walsh  
Air Permitting Program Supervisor  
Air Resources Management Bureau  
(406) 444-9741

Deanne Fischer, P.E.  
Environmental Engineer  
Air Resources Management Bureau  
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VW:DF  
Enclosure

Montana Department of Environmental Quality  
Permitting and Compliance Division

Montana Air Quality Permit #3107-01

Interstate Brands Corporation  
Sweetheart Bakery  
5150 Midland Road  
Billings, MT 59108

February 16, 2012



## MONTANA AIR QUALITY PERMIT

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

MAQP: # 3107-01  
Administrative Amendment (AA)  
Received: 01/04/2012  
Department Decision on AA: 01/31/2012  
Permit Final: 02/16/2012  
AFS#: 017-0004

A Montana Air Quality Permit (MAQP), with conditions, with conditions, is hereby granted to the Interstate Brands Corporation-Sweetheart Bakery (Sweetheart Bakery) facility in Billings, Montana, pursuant to Sections 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and Administrative Rules of Montana (ARM) 17.8.740, *et seq.*, as amended, for the following:

### SECTION I: Permitted Facilities

#### A. Plant Location

The Sweetheart Bakery is located at 5150 Midland Road in Billings, Montana. The legal location of the facility is Section 17, Township 1 South, Range 26 East, in Yellowstone County, Montana.

#### B. Current Permit Action

On January 11, 2012, the Department of Environmental Quality (Department) received a request to amend MAQP #3107-00, to incorporate limits which maintain potential emissions below 80 tons per year (TPY). This request was made as part of a project created by the Department to address those sources with existing federally enforceable permit limits that were established to keep potential emissions below major source permitting thresholds. The project encouraged these sources to further reduce emissions to avoid additional monitoring and increased inspections required under the Compliance Monitoring Strategy (CMS) in connection with the U. S. Environmental Protection Agency (EPA). This permitting action amends MAQP #3107-00 to incorporate limits and conditions to maintain potential emissions below 80 TPY. In addition, the permit action updates the rule references, permit format, and the emissions inventory.

### SECTION II: Conditions and Limitations

#### A. Emission Limitations

1. 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 (ARM 17.8.308).
2. Sweetheart Bakery shall treat all unpaved portions of the haul roads, access roads, parking lots, or general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the reasonable precautions limitation in Section II.A.1 (ARM 17.8.749).
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 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 sources installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304)).
5. Sweetheart Bakery shall limit the combined production of bread and/or rolls to a maximum of 24,500 tons per year, which correspond to a total volatile organic compound (VOC) emission level for the facility that does not exceed 80 tons during any rolling 12-month period. Any calculations used to establish production levels shall be approved by the Department (ARM 17.8.749).
6. Sweetheart Bakery shall have on site not more than 1 diesel engine generator with a maximum rated design capacity of 425 brake horsepower (bhp). The generator shall only be used as backup or in emergency situations and for a very short time to perform periodic maintenance checks and operator training, and shall be limited to 500 hours of operation during any rolling 12-month period (ARM 17.8.749).

#### 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 further testing (ARM 17.8.105).

#### C. Operational 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 emission inventory contained in 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 to calculate 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 17.8.745, that would include *the addition of a new emissions unit*, 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. The notice must be submitted to the Department, in writing, 10 days prior to startup 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 17.8.745(l)(d) (ARM 17.8.745).
3. All records compiled in accordance with this permit must be maintained by Sweetheart Bakery as a permanent business record for at least 5 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 17.8.749).
4. Sweetheart Bakery shall document, by month, the production and corresponding VOC emission levels. By the 25<sup>th</sup> of each month, Sweetheart Bakery shall total the production and corresponding VOC emission levels for the previous 12- 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 17.8.749).

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 17.8.749 and ARM 17.8.1204).

### SECTION III: General Conditions

- A. Inspection – Sweetheart Bakery shall allow the Department’s representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment (continuous emissions monitoring system (CEMS) or continuous emissions rate monitoring system 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 17.8.740, *et seq.* (ARM 17.8.756).
- D. Enforcement – Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties, or other enforcement action 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 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 filing of a request for a hearing does not stay the Department’s decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on a permit by the Board postpones the effective date of the Department’s decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, the Department’s decision on the application is final 16 days after the Department’s decision is made.
- F. Permit Inspection – As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by the Department at the location of the source.
- G. Permit Fee – Pursuant to Section 75-2-220, MCA, 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.
- H. Duration of Permit – Construction or installation must begin or contractual obligations entered into that would constitute substantial loss within 3 years of permit issuance and proceed with due diligence until the project is complete or the permit shall expire (ARM 17.8.762).

Montana Air Quality Permit (MAQP) Analysis  
Interstate Brands Corporation – Sweetheart Bakery  
MAQP #3107-01

I. Introduction/Process Description

A. Permitted Equipment

Equipment used at this facility includes all equipment listed in the permit application for #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.

B. Source 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.

C. Permit History

On May 28, 2000, the Department of Environmental Quality (Department) issued **MAQP#3107-00** to Interstate Brands Corporation – Sweetheart Bakery (Sweetheart Bakery). MAQP#3107-00 transferred permitting authority from Yellowstone County to the State of Montana. The facility had not changed its operation or configuration, but the existing Yellowstone County permit had to be reissued as a state permit. MAQP #3107-00 replaced all Yellowstone County and any other air quality permits held by Sweetheart Bakery.

D. Current Permit Action

On January 11, 2012, the Department received application request to amend MAQP #3107-00, to incorporate limits which maintain potential emissions below 80 tons per year (TPY). This request was made as part of a project created by the Department to address those sources with existing federally enforceable permit limits that were established to keep potential emissions below major source permitting thresholds. The project encouraged these sources to further reduce emissions to avoid additional monitoring and increased inspections required under the Compliance Monitoring Strategy (CMS) in connection with the U. S. Environmental Protection Agency (EPA). This permitting action amends MAQP #3107-00 to incorporate limits and conditions to maintain potential emissions below 80 TPY. In addition, the permit updates the rule references, permit format, and the emissions inventory. **MAQP #3107-01** replaces MAQP #3107-00.

E. Additional Information

Additional information, such as applicable rules and regulations, Best Available Control Technology (BACT)/Reasonably Available Control Technology (RACT) determinations, air quality impacts, and environmental assessments, is included in the analysis associated with each change to the permit.

## II. Applicable Rules and Regulations

The following are partial explanations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available, upon request, from the Department of Environmental Quality (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, 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 emission 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.
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.*, Montana Code Annotated (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 telephone 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 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 that, without resulting in reduction of the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner as to create a public nuisance.

### B. ARM 17.8, Subchapter 2 – Ambient Air Quality, including, but not limited to the following:

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 PM<sub>10</sub>; 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, 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 the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.
2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of less than 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter. (2) Under this rule, 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 rule 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 rule.
4. ARM 17.8.310 Particulate Matter, Industrial Process. This rule 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 rule.
5. ARM 17.8.322 Sulfur Oxide Emissions - Sulfur in Fuel. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth in this rule.
6. ARM 17.8.324 Hydrocarbon Emissions - Petroleum Products. (3) 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 tank is equipped with a vapor loss control device as described in (1) of this rule.
7. ARM 17.8.340 Standard of Performance for New Stationary Sources. This rule 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, 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. A permit application is incomplete until the proper application fee is paid to the Department. A permit fee is not required for the current permit action because the permit action is considered an administrative permit change.
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. 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 that prorate the required fee amount.

- E. ARM 17.8, Subchapter 7 – Permit, Construction, and Operation of Air Contaminant Sources, including, but not limited to:
1. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a person to obtain an air quality permit or permit modification to construct, modify, or use any air contaminant sources that have the potential to emit (PTE) greater than 25 TPY of any pollutant. Sweetheart Bakery has a PTE greater than 25 TPY of VOC therefore, an air quality permit is required.
  2. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.
  3. ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.
  4. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, modification, or use of a source. Sweetheart Bakery submitted the required permit application for the current permit action. (7) 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. An affidavit of publication of public notice was not required for the current permit action because the permit change is considered an administrative permit change.
  5. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.
  6. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. The required BACT analysis is included in Section III of this permit analysis.
  7. ARM 17.8.755 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 17.8.756 Compliance with Other Requirements. This rule states that nothing in the 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 17.8.740, *et seq.*
  9. ARM 17.8.759 Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.

10. ARM 17.8.762 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 modified 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 1 year after the permit is issued.
  11. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).
  12. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.
  13. ARM 17.8.765 Transfer of Permit. This rule states that 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, Subchapter 8 – Prevention of Significant Deterioration of Air Quality, including, but not limited to:
1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this subchapter.
  2. ARM 17.8.818 Review of Major Stationary Sources and Major Modifications--Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any major modification with respect to each pollutant subject to regulation under the FCAA that it would emit, except as this subchapter would otherwise allow.

This facility is not a major stationary source because it is not listed and does not have a PTE greater than 250 TPY of any air pollutant (excluding fugitive emissions).

- G. ARM 17.8, Subchapter 12 - Operating Permit Program Applicability, including, but not limited to:
1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any stationary source having:
    - a. PTE > 100 TPY of any pollutant;
    - b. PTE > 10 TPY of any one HAP, PTE > 25 TPY of a combination of all HAPs, or lesser quantity as the Department may establish by rule; or
    - c. PTE > 70 TPY of particulate matter with an aerodynamic diameter of 10 microns or less (PM<sub>10</sub>) in a serious PM<sub>10</sub> nonattainment area.

2. ARM 17.8.1204 Air Quality Operating Permit Program Applicability. (1) Title V of the FCAA Amendments of 1990 requires that all sources, as defined in ARM 17.8.1204 (1), obtain a Title V Operating Permit. In reviewing and issuing MAQP #3107-01 for Sweetheart Bakery, the following conclusions were made:
  - a. The facility's PTE is less than 100 TPY for any pollutant.
  - b. The facility's PTE is less than 10 TPY for any one HAP and less than 25 TPY for all HAPs.
  - c. This source is not located in a serious PM<sub>10</sub> nonattainment area.
  - d. This facility is not subject to any current NSPS.
  - e. This facility is not subject to any current NESHAP standards.
  - f. This source is not a Title IV affected source, nor a solid waste combustion unit.
  - g. This source is not an EPA designated Title V source.
  - h. As allowed by ARM 17.8.1204(3), the Department may exempt a source from the requirement to obtain an Air Quality Operating Permit by establishing federally enforceable limitations that limit that source's PTE.
    - i. In applying for an exemption under this section the owner or operator of the source shall certify to the Department that the source's PTE does not require the source to obtain an Air Quality Operating Permit.
    - ii. Any source that obtains a federally enforceable limit on PTE shall annually certify that its actual emissions are less than those that would require the source to obtain an Air Quality Operating Permit.

Sweetheart Bakery has taken federally enforceable permit limits to keep potential emissions below major source permitting thresholds. Therefore, the facility is not a major source and, thus a Title V Operating Permit is not required.

The Department determined that the annual reporting requirements contained in the permit are sufficient to satisfy this requirement.

3. ARM 17.8.1207 Certification of Truth, Accuracy, and Completeness. 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 requirements of ARM 17.8.1207. The annual certification shall be submitted along with the annual Emission Inventory information.

Based on these facts, the Department determined that Sweetheart Bakery would be a minor source of emissions as defined under Title V.

### III. BACT Analysis

A BACT determination is required for each new or modified source. Sweetheart Bakery shall install on the new, or modified, source the maximum air pollution control capability, which is technically practicable and economically feasible, except that BACT shall be utilized. Sweetheart Bakery was not required to submit a BACT analysis because the current permit action is considered administrative.

IV. Emission Inventory

SOURCE	(tons/year)						
	NO <sub>x</sub>	SO <sub>2</sub>	CO	VOC	PM-2.5	PM-10	PM
Boiler #1 - natural gas	2.81	0.02	2.36	0.15	0.21	0.21	0.21
Boiler #1 - Fuel Oil	0.10	0.72	0.03	0.002	0.01	0.01	0.01
Boiler #2 - natural gas	2.81	0.02	2.36	0.15	0.21	0.21	0.21
Boiler #2 - fuel oil	0.10	0.72	0.03	0.002	0.01	0.01	0.01
Bread Oven	2.68	0.016	2.25	0.15	0.20	0.20	0.20
Roll Oven	1.12	0.007	0.94	0.061	0.08	0.08	0.08
Bread/Roll baking	-	-	-	78.4	-	-	-
Flour Silo's (5)	--	--	--	--	0.27	1.62	7.25
Emergency Generator	3.29	0.22	0.71	0.27	0.23	0.23	0.23
Diesel Fuel Tanks	--	--	--	0.009	--	--	--
Videojet Product Coder (5)	--	--	--	0.312	--	--	--
Parts Washer	--	--	--	0.134	--	--	--
<b>TOTAL</b>	<b>12.91</b>	<b>1.71</b>	<b>8.66</b>	<b>79.64</b>	<b>1.24</b>	<b>2.59</b>	<b>8.22</b>

**Boiler #1 - Natural Gas**

Heat Content: 980 Btu/scf

Maximum Rated Design Capacity: 6.277 MMBtu/hr = 56.1 MMscf/yr  
 (6,277,000 Btu/hr)\*(scf/980 Btu)\*(8760 hr/yr) = 56.1 MMscf/yr

**NO<sub>x</sub>**: Emission Factor 100 lbs/MMscf (SCC 1-03-006-03, AP-42, Table 1.4-1, 7/98)  
 56.1 MMscf/yr \* 100 lbs/MMscf \* ton/2000 lbs = 2.81 tpy

**CO**: Emission Factor 84 lbs/MMscf (SCC 1-03-006-03, AP-42, Table 1.4-1, 7/98)  
 56.1 MMscf/yr \* 84 lbs/MMscf \* ton/2000 lbs = 2.36 tpy

**SO<sub>2</sub>**: Emission Factor 0.6 lbs/MMscf (SCC 1-03-006-03, AP-42, Table 1.4-2, 7/98)  
 56.1 MMscf/yr \* 0.6 lbs/MMscf \* ton/2000 lbs = 0.02 tpy

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

**PM=PM10=PM2.5**: Emission Factor 7.6 lbs/MMscf (SCC 1-03-006-03, AP-42, Table 1.4-2, 7/98)  
 56.1 MMscf/yr \* 7.6 lbs/MMscf \* ton/2000 lbs = 0.21 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 Btu/hr)\*(scf/980 Btu)\*(8760 hr/yr) = 56.1 MMscf/yr

**NO<sub>x</sub>**: Emission Factor 100 lbs/MMscf (SCC 1-03-006-03, AP-42, Table 1.4-1, 7/98)  
 56.1 MMscf/yr \* 100 lbs/MMscf \* ton/2000 lbs = 2.81 tpy

**CO**: Emission Factor 84 lbs/MMscf  
 (SCC 1-03-006-03, AP-42, Table 1.4-1, 7/98)  
 56.1 MMscf/yr \* 84 lbs/MMscf \* ton/2000 lbs = 2.36 tpy

**SO<sub>2</sub>**: Emission Factor 0.6 lbs/MMscf  
 (SCC 1-03-006-03, AP-42, Table 1.4-2, 7/98)

56.1 MMscf/yr \* 0.6 lbs/MMscf \* ton/2000 lbs = 0.02 tpy

**VOC:** Emission Factor 5.5 lbs/MMscf

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

56.1 MMscf/yr \* 5.5 lbs/MMscf \* ton/2000 lbs = 0.15 tpy

**PM=PM10=PM2.5:** Emission Factor 7.6 lbs/MMscf (SCC 1-03-006-03, AP-42, Table 1.4-2, 7/98)

56.1 MMscf/yr \* 7.6 lbs/MMscf \* ton/2000 lbs = 0.21 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 lbs/1000gal)\*(10,080 gal/yr)\*(ton/2000lbs) = 0.10 tpy

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

(5 lbs/1000gal)\*(10080gal/yr)\*(ton/2000lbs) = 0.03 tpy

**SO2:** 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=PM10=PM2.5:** 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

### ***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 lbs/1000gal)\*(10,080 gal/yr)\*(ton/2000lbs) = 0.10 tpy

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

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

**SO2:** 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=PM10=PM2.5:** 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

**NO<sub>x</sub>**: 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

**SO<sub>2</sub>**: 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=PM<sub>10</sub>=PM<sub>2.5</sub>**: Emission Factor 7.6 lbs/MMscf (SCC 1-03-006-03, AP-42, Table 1.4-2, 7/98)  
(53.6 lbs/MMscf)\*(7.6 lbs/MMscf)\*(ton/2000lbs) = 0.20 tpy

### ***Bread/Roll Baking***

Production Rate: 24,500 tons bread/yr

**VOC**: Emission Factor: 6.4 lb VOC/ton bread produced (facility supplied)  
(6.4 lbs/ton)\*(24,500 ton/yr)\*(ton/2000lbs) = 78.4 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

**NO<sub>x</sub>**: 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

**SO<sub>2</sub>**: 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=PM<sub>10</sub>=PM<sub>2.5</sub>**: Emission Factor 7.6 lbs/MMscf (SCC 1-03-006-03, AP-42, Table 1.4-2, 7/98)  
(22.3 lbs/MMscf)\*(7.6 lbs/MMscf)\*(ton/2000lbs) = 0.08 tpy

### ***Flour Silo's (5)***

Product Loadout

Maximum annual throughput = 13811.7 ton/silo/year

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

**PM:** Emission Factor 0.035 lbs/ton (AP-42, Table 9.9.1-2, 5/98)  
(16574.04 ton/yr)\*(0.035 lbs/ton)\*(ton/2000lbs)\*(5 silo's) = 7.25 tpy

**PM-10:** Emission Factor 0.0078 lbs/ton (AP-42, Table 9.9.1-2, 5/98)  
(16574.04 ton/yr)\*(0.0078 lbs/ton)\*(ton/2000lbs)\*(5 silo's) = 1.62 tpy

**PM-2.5:** Emission Factor 0.0013 lbs/ton (AP-42, Table 9.9.1-2, 5/98)  
(16574.04 ton/yr)\*(0.0013 lbs/ton)\*(ton/2000lbs)\*(5 silo's) = 0.27 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 hp)\*(0.031 lbs/hp-hr)\*(ton/2000lbs)\*(500 hr/yr) = 3.29 tpy

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

**SO<sub>2</sub>:** Emission Factor 0.00205 lbs/hp-hr (SCC 2-02-001-02, AP-42  
Table 3.3-1, 10/96)  
(425 hp)\*(0.00205 lbs/hp-hr)\*(ton/2000lbs)\*(500 hr/yr) = 0.22 tpy

**VOC:** Emission Factor 0.00251 lbs/hp-hr (SCC 2-02-001-02, AP-42  
Table 3.3-1, 10/96)  
(425 hp)\*(0.00251 lbs/hp-hr)\*(ton/2000lbs)\*(500 hr/yr) = 0.27 tpy

**PM-10:** Emission Factor 0.0022 lbs/hp-hr (SCC 2-02-001-02, AP-42 Table 3.3-1, 10/96)  
(425 hp)\*(0.0022 lbs/hp-hr)\*(ton/2000lbs)\*(500 hr/yr) = 0.23 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 gal/yr)\*(0.03 lbs/1000gal)\*(ton/2000lbs) = 0.009 tpy

#### ***Parts Washers (2)***

20-gallon product use per washer per year

**VOC:** Emission Factor 6.7 lbs/gal (Manufacturer MSDS)  
(40 gal/yr)\*(6.7 lbs/gal)\*(ton/2000lbs) = 0.134 tpy

#### ***Videojet Product Coders (5)***

Maximum Annual Product Use: 18.6 gal/yr/coder

**VOC:** Emission Factor 6.7 lbs/gal (Manufacturer MSDS)  
(18.6 gal/yr/coder)\*(5 coders)\*(6.7 lbs/gal)\*(ton/2000lbs) = 0.312 tpy

## V. Existing Air Quality

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. Ambient Air Impact Analysis

The Department determined that there will be no impacts from this permitting action because this permitting action is considered an administrative action. Therefore, the Department believes this action will not cause or contribute to a violation of any ambient air quality standard.

VII. Taking or Damaging Implication Analysis

As required by 2-10-105, MCA, the Department conducted the following private property taking and damaging assessment.

YES	NO	
X		1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights?
	X	2. Does the action result in either a permanent or indefinite physical occupation of private property?
	X	3. Does the action deny a fundamental attribute of ownership? (ex.: right to exclude others, disposal of property)
	X	4. Does the action deprive the owner of all economically viable uses of the property?
	X	5. Does the action require a property owner to dedicate a portion of property or to grant an easement? [If no, go to (6)].
		5a. Is there a reasonable, specific connection between the government requirement and legitimate state interests?
		5b. Is the government requirement roughly proportional to the impact of the proposed use of the property?
	X	6. Does the action have a severe impact on the value of the property? (consider economic impact, investment-backed expectations, character of government action)
	X	7. Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public generally?
	X	7a. Is the impact of government action direct, peculiar, and significant?
	X	7b. Has government action resulted in the property becoming practically inaccessible, waterlogged or flooded?
	X	7c. Has government action lowered property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question?
	X	Takings or damaging implications? (Taking or damaging implications exist if YES is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if NO is checked in response to questions 5a or 5b; the shaded areas)

Based on this analysis, the Department determined there are no taking or damaging implications associated with this permit action.

VIII. Environmental Assessment

This permitting action will not result in an increase of emissions from the facility and is considered an administrative action; therefore, an Environmental Assessment is not required.

Analysis prepared by: Deanne Fischer  
Date: January 24, 2012