

Fact Sheet



For Final Permitting Action Under 45CSR30 and Title V of the Clean Air Act

Permit Number: **R30-01100062-2005**
Plant Identification Number: **011-00062**
Permittee: **Earthgrains Baking Companies, Inc.**
Mailing Address: **1300 Adams Avenue Huntington, WV 25704**

Physical Location: Huntington, Cabell County, West Virginia
UTM Coordinates: 4252 km Easting • 371 km Northing • Zone 17
Directions: Interstate 64 to Adams Avenue exit; between Adams and Washington Avenues, and between 13th Street West and 14th Street West.

Facility Description

Commercial bread baking facility consisting of natural gas fired ovens, flour handling equipment, steam heat, emergency generators, bulk edible oil storage and gasoline/diesel storage tanks for refueling vehicles.

Emissions Summary

Plantwide Emissions Summary [Tons per Year]		
Criteria Pollutants	Potential Emissions	2004 Actual Emissions
Carbon Monoxide (CO)	7.63	1.40
Nitrogen Oxides (NO _x)	9.08	1.67
Particulate Matter (PM ₁₀)	5.83	4.01
Total Particulate Matter (TSP)	5.83	4.01
Sulfur Dioxide (SO ₂)	0.05	0.0
Volatile Organic Compounds (VOC)	210.87	117.96

PM₁₀ is a component of TSP.

Hazardous Air Pollutants	Potential Emissions	2004 Actual Emissions
NA		

Title V Program Applicability Basis

This facility has the potential to emit 210.87 tons per year of Volatile Organic Compounds. Due to this facility's potential to emit over 100 tons per year of a criteria pollutant, Earthgrains Baking Companies, Inc. is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

This facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR6 45CSR7 45CSR11 45CSR13 45CSR21 WV Code § 22-5-4(a)(14) 45CSR30 40 C.F.R. Part 61 40 C.F.R. Part 82, Subpart F	Open burning prohibited. Particulate Matter emission limits. Standby plans for emergency episodes. Production rate, natural gas usage and emission limits VOC emission limits The Secretary can request any pertinent information such as annual emission inventory reporting. Operating permit requirement. Asbestos inspection and removal Ozone depleting substances
State Only:	45CSR4	No objectionable odors.

Each State and Federally-enforceable condition of the draft Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the draft Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the draft Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR15, 45CSR34 and 45CSR30.

Active Permits/Consent Orders

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit (<i>if any</i>)
R13-2005A	February 28, 2001	

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table B," which may be downloaded from DAQ's website.

Determinations and Justifications

45CSR7 - Under 45CSR§7-3.1., the baking ovens are limited to 20% opacity, and under 45CSR§7-3.7., the flour storage silos are limited to 0% opacity during normal operations and 20% opacity during filling operations. The facility will monitor opacity by performing visual emissions checks, conducting tests in accordance 45CSR7A within 48 hours, and correcting exceedances. Under 45CSR§7-4.1., the three ovens combined are limited to 5.1

lbs/hr of PM, but Permit R13-2005A limits the three ovens to less than 0.1 lb/hr of PM. Therefore, the Rule 7 limit was streamlined with the Rule 13 Permit limit. The flour silos during filling are limited to 11.2 lbs/hr of PM. The permit application lists the potential PM emissions from the flour silos at 2.18 lbs/hr which is less than 50% of the allowable limit, therefore an appropriate method of demonstrating compliance by conducting visible emissions checks during filling operations. 45CSR§7-8.1 gives the Director the authority to require stack testing.

45CSR13 - Permit R13-2005A allowed the facility to replace an oven and increase production from 95 million lbs/yr to 131 million lbs/yr. The permit authorizes limits on production and amount of natural gas combusted, and requires the facility to demonstrate compliance by maintaining monthly records of the production of each oven and the amount of natural gas combusted in each oven. The permit also authorizes limits on emissions of criteria pollutants, based on maximum production rates, so that compliance with the maximum production rates assures compliance with the pollutant limits. Permit R13-2005A compliance determination methods did not require hourly calculations, therefore those were added to the Title V permit.

Condition B.5., cites 45CSR§13-6.1. and requires the facility to conduct tests if requested. Section 3.3.1. of the Title V permit also requires the facility to conduct tests if requested. Therefore, Condition B.5. was streamlined with Section 3.3.1. and was not carried over into the Title V permit.

It was determined that the conditions in Permit R13-2005A, Condition B.6., are not applicable requirements and were not carried over into the Title V permit.

45CSR21 - The engineering evaluation for Permit R13-2005A states: This facility is subject to 45CSR§21-40. Under 45CSR§21-40.3.a.1 “any existing non-fugitive emission source which has maximum theoretical emissions of 6 pounds per hour or more of VOCs, must comply with an emission control plan established on a case-by-case basis approved by the Director that meets the definition of reasonably available control measures (RACM) and achieves at least a 90 percent reduction in emissions below the total (aggregate) maximum theoretical emissions from all such non-fugitive emission sources subject to RACM requirements;” RACM means “an emission limit or limits that reflect the application of control technology and/or abatement techniques or measures that are reasonably available, considering technological and economic feasibility.” Earthgrains Baking Companies, Inc. has stated in their application that all control technologies are economically unfeasible. Earthgrains submitted cost estimates showing a reduction of VOC emissions from the Baker Perkins 970 Oven by approximately 111 tons per year at a cost of \$3,261.27 per ton by implementing catalytic oxidation. This oven was chosen for the following reasons:

1. Maximum process theoretical VOC emission rates are greatest for this oven line.
2. Only necessary to control 2 of the 3 emission points (only 2 are over 6 lbs/hr).
3. The heat input capacity is 10 MM BTU/hr, minimizing supplemental fuel costs to preheat inlet air to enhance combustion.

Maximum Theoretical Emissions (MTE) from all emission points at this facility which emit over 6 lbs/hr is 67.86 lbs/hr. Implementing Catalytic Oxidation on only the Baker Perkins 970 Oven would reduce hourly emissions by 42.64 lbs/hour or 63%.

All emission points which emit over 6 lb/hr of VOCs are associated with the Baker Perkins 970 Oven and the Teledyne Redco oven. If Catalytic Oxidation was implemented on both the Baker Perkins 970 Oven and the Teledyne Redco oven, there would be a reduction of 63.18 lbs/hr or 93.1% (based on a 95% capture and 98% destruction efficiencies for catalytic oxidation.) Therefore, Earthgrains was requested by the writer to provide cost estimates for a scenario that includes catalytic oxidation control on both ovens. An analysis of these two scenarios follows:

Scenario 1:

- Control two emission points from the Baker Perkins 970 oven (emissions points 1e and 2e.)
 - reduces MTE by 42.64 lbs/hr (63%)
 - capital cost of \$764,962 (\$734, 849 if no “adjustment factor” is considered)

- annualized cost of \$361,525
- reduces yearly VOC emissions by 110.85 tons per year (from 119.07 tpy to 8.22 tpy)
- cost effectiveness of \$3,261.27/ton

Scenario 2:

Control two emission points from the Baker Perkins 970 oven (emission points 1e and 2e) and two emission points from the Teledyne Redco oven (emission points 5e and 6e).

- reduces MTE by 63.18 lbs/hr (93.1%)
- capital cost of \$1,218,802 (\$1,122,892 if no “adjustment factor” is considered)
- annualized cost of \$535,352
- reduces yearly VOC emissions by 164.26 tons per year (from 176.43 tpy to 12.17 tpy)
- cost effectiveness of \$3,259.25/ton

Therefore, it has been determined that these controls are economically infeasible at this time. However, in the event of construction or modification at the facility, the facility shall comply with a control plan developed on a case-by-case basis approved by the Director that meets the definition of reasonably available control technology (RACT) in accordance with 45CSR§21-40.3.c.

Monitoring, Testing, Recordkeeping, and Reporting requirements were determined in accordance with 45CSR21. 45CSR§21-5.1. requires an Initial compliance certification. This requirement has been met, therefore, this was not included in the Permit. 45CSR§21-5.3. is applicable to sources with control devices. This section is not applicable to the facility at this time, but will become applicable if control devices are installed.

45CSR29 - Earthgrains Baking Companies, Inc. is located in Cabell County and is thus subject to Rule 29 which requires the submission of an emission statement from owners and operators of stationary sources emitting volatile organic compounds (VOCs) or oxides of nitrogen (NO_x). This requirement was streamlined with the requirement to submit an annual emission inventory.

Non-Applicability Determinations

The following requirements have been determined not to be applicable to the subject facility due to the following:

45CSR10 - R13-2005A listed Section 10.3.3, which applies to indirect heat exchangers, as a requirement for the ovens. The ovens at this facility are direct heat exchangers and are therefore considered to be manufacturing processes. The applicable rule is Section 10.4., however, the ovens are exempt in accordance with 45CSR§10-4.1.e. because the ovens have the potential to emit less than 500 pounds per year of sulfur oxides.

45CSR15 and 40 CFR Part 61 - The facility is not a major source of HAPs.

45CSR16 and 40 CFR Part 60 - There is no applicable NSPS for this facility.

45CSR34 and 40 CFR Part 63 - The facility is not a major source of HAPs.

40 CFR 64 - The baking ovens are subject to emissions limitations but do not utilize control devices to achieve compliance. The Materials (flour) handling system utilizes a control device but is not a major source of emissions nor is it subject to a pollutant specific emission limitation. Therefore, in accordance with 40 CFR § 64.2(a), CAM is not applicable to this facility.

Request for Variances or Alternatives

None.

Insignificant Activities

Insignificant emission unit(s) and activities are identified in the Title V application.

Comment Period

Beginning Date: October 28, 2005

Ending Date: November 28, 2005

All written comments should be addressed to the following individual and office:

Bobbie Scroggie
Title V Permit Writer
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

Procedure for Requesting Public Hearing

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

Point of Contact

Bobbie Scroggie
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone: 304/926-0499 ext. 1225 • Fax: 304/926-0478

Response to Comments from USEPA

1. Was this facility previously owned by Sara Lee and is now being permitted as a new source?
This source was previously known as Heiner's Bakery, and then was purchased by Sara Lee. The facility became a synthetic minor to get out of Title V, but because of an increase in production, is now subject to Title V again.
2. Under Emission Units Section 1.0 the permit list emission unit 9E but this is not listed under Condition 3 Table 1 Section 4.1.5. Should it not be listed? Please explain.
Section 4.1.5. is a requirement taken from an NSR permit, R13-2005A. Emission Unit 9E was not listed in the Table in the NSR Permit. Emission Unit 9E consists of the flour storage silos. It is also known as Emission Point ID 4S, as noted in Emission Unit Section 1.0 of the Title V Permit. Sections 4.1.2., 4.1.3., and 4.1.4. of the Title V Permit apply to Emission Point 4S.
3. Condition 3, Table 1 Section 4.1.5 how are these limits federally enforceable. There is no monitoring, testing or record keeping requirements. Please explain.
The Title V Fact Sheet, page 3 under 45CSR13, notes that the NSR permit "authorizes limits on emissions of criteria pollutants, based on maximum production rates, so that compliance with the maximum production rates assures compliance with the pollutant limits." The Title V Permit carries over the requirement to demonstrate compliance with the emission limits by monitoring the production rates and keeping records of such.