



John R. Kasich, Governor  
Mary Taylor, Lt. Governor  
Scott J. Nally, Director

6/12/2013

Scott Weyandt  
Shearers Foods Massillon OH  
692 Wabash Ave. North  
Brewster, OH 44613

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE

Facility ID: 1576135005  
Permit Number: P0114069  
Permit Type: Initial Installation  
County: Stark

Certified Mail

No	TOXIC REVIEW
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT/GACT
No	NSPS
No	NESHAPS
No	NETTING
No	MODELING SUBMITTED
No	SYNTHETIC MINOR TO AVOID TITLE V
No	FEDERALLY ENFORCABLE PTIO (FEPTIO)
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA) Air Pollution Permit-to-Install and Operate (PTIO) which will allow you to install, modify, and/or operate the described emissions unit(s) in the manner indicated in the permit. Because this permit contains conditions and restrictions, please read it very carefully. In this letter you will find the information on the following topics:

- **How to appeal this permit**
- **How to save money, reduce pollution and reduce energy consumption**
- **How to give us feedback on your permitting experience**
- **How to get an electronic copy of your permit**

**How to appeal this permit**

The issuance of this PTIO is a final action of the Director and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00, made payable to "Ohio Treasurer Josh Mandel," which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission  
77 South High Street, 17th Floor  
Columbus, OH 43215

## **How to save money, reduce pollution and reduce energy consumption**

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. Additionally, all or a portion of the capital expenditures related to installing air pollution control equipment under this permit may be eligible for financing and State tax exemptions through the Ohio Air Quality Development Authority (OAQDA) under Ohio Revised Code Section 3706. For more information, see the OAQDA website: [www.ohioairquality.org/clean\\_air](http://www.ohioairquality.org/clean_air)

## **How to give us feedback on your permitting experience**

Please complete a survey at [www.epa.ohio.gov/dapc/permitsurvey.aspx](http://www.epa.ohio.gov/dapc/permitsurvey.aspx) and give us feedback on your permitting experience. We value your opinion.

## **How to get an electronic copy of your permit**

This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Division of Air Pollution Control (DAPC) Web page, [www.epa.ohio.gov/dapc](http://www.epa.ohio.gov/dapc) by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

If you have any questions, please contact Canton City Health Department at (330)489-3385 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,



Michael W. Ahern, Manager

Permit Issuance and Data Management Section, DAPC

Cc: Canton



**FINAL**

**Division of Air Pollution Control  
Permit-to-Install and Operate  
for  
Shearers Foods Massillon OH**

Facility ID:	1576135005
Permit Number:	P0114069
Permit Type:	Initial Installation
Issued:	6/12/2013
Effective:	6/12/2013
Expiration:	1/31/2021





**Division of Air Pollution Control**  
**Permit-to-Install and Operate**  
for  
Shearers Foods Massillon OH

**Table of Contents**

Authorization .....	1
A. Standard Terms and Conditions .....	3
1. What does this permit-to-install and operate ("PTIO") allow me to do?.....	4
2. Who is responsible for complying with this permit? .....	4
3. What records must I keep under this permit? .....	4
4. What are my permit fees and when do I pay them?.....	4
5. When does my PTIO expire, and when do I need to submit my renewal application? .....	4
6. What happens to this permit if my project is delayed or I do not install or modify my source? .....	5
7. What reports must I submit under this permit? .....	5
8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit? .....	5
9. What are my obligations when I perform scheduled maintenance on air pollution control equipment? ...	5
10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report? .....	6
11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located? .....	6
12. What happens if one or more emissions units operated under this permit is/are shut down permanently? .....	6
13. Can I transfer this permit to a new owner or operator?.....	7
14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"? .....	7
15. What happens if a portion of this permit is determined to be invalid? .....	7
B. Facility-Wide Terms and Conditions.....	8
C. Emissions Unit Terms and Conditions .....	10
1. P003, PC2100 Continuous Potato Chip Fryer with HX.....	11





**Final Permit-to-Install and Operate**  
Shearers Foods Massillon OH  
**Permit Number:** P0114069  
**Facility ID:** 1576135005  
**Effective Date:** 6/12/2013

## Authorization

Facility ID: 1576135005  
Application Number(s): A0047528  
Permit Number: P0114069  
Permit Description: Installation PTIO for a Food Processing Facility to install a continuous potato chip fryer with heat exchanger, controlled by a oil mist eliminator. This emissions unit is being relocated from the Shearer's Foods facility in Brewster, OH to this facility in Massillon, OH.  
Permit Type: Initial Installation  
Permit Fee: \$500.00  
Issue Date: 6/12/2013  
Effective Date: 6/12/2013  
Expiration Date: 1/31/2021  
Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

Shearers Foods Massillon OH  
4100 Millennium Blvd SE  
Massillon, OH 44613

of a Permit-to-Install and Operate for the emissions unit(s) identified on the following page.

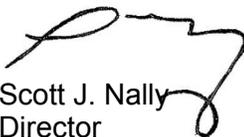
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Canton City Health Department  
420 Market Avenue  
Canton, OH 44702-1544  
(330)489-3385

The above named entity is hereby granted this Permit-to-Install and Operate for the air contaminant source(s) (emissions unit(s)) listed in this section pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the described emissions unit(s) will operate in compliance with applicable State and federal laws and regulations.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

  
Scott J. Nally  
Director



**Final Permit-to-Install and Operate**  
Shearers Foods Massillon OH  
**Permit Number:** P0114069  
**Facility ID:** 1576135005  
**Effective Date:** 6/12/2013

## Authorization (continued)

Permit Number: P0114069

Permit Description: Installation PTIO for a Food Processing Facility to install a continuous potato chip fryer with heat exchanger, controlled by a oil mist eliminator. This emissions unit is being relocated from the Shearer's Foods facility in Brewster, OH to this facility in Massillon, OH.

Permits for the following Emissions Unit(s) or groups of Emissions Units are in this document as indicated below:

<b>Emissions Unit ID:</b>	<b>P003</b>
Company Equipment ID:	PC2100 Continuous Potato Chip Fryer with HX
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



**Final Permit-to-Install and Operate**  
Shearers Foods Massillon OH  
**Permit Number:** P0114069  
**Facility ID:** 1576135005  
**Effective Date:** 6/12/2013

## **A. Standard Terms and Conditions**



**1. What does this permit-to-install and operate ("PTIO") allow me to do?**

This permit allows you to install and operate the emissions unit(s) identified in this PTIO. You must install and operate the unit(s) in accordance with the application you submitted and all the terms and conditions contained in this PTIO, including emission limits and those terms that ensure compliance with the emission limits (for example, operating, recordkeeping and monitoring requirements).

**2. Who is responsible for complying with this permit?**

The person identified on the "Authorization" page, above, is responsible for complying with this permit until the permit is revoked, terminated, or transferred. "Person" means a person, firm, corporation, association, or partnership. The words "you," "your," or "permittee" refer to the "person" identified on the "Authorization" page above.

The permit applies only to the emissions unit(s) identified in the permit. If you install or modify any other equipment that requires an air permit, you must apply for an additional PTIO(s) for these sources.

**3. What records must I keep under this permit?**

You must keep all records required by this permit, including monitoring data, test results, strip-chart recordings, calibration data, maintenance records, and any other record required by this permit for five years from the date the record was created. You can keep these records electronically, provided they can be made available to Ohio EPA during an inspection at the facility. Failure to make requested records available to Ohio EPA upon request is a violation of this permit requirement.

**4. What are my permit fees and when do I pay them?**

There are two fees associated with permitted air contaminant sources in Ohio:

PTIO fee. This one-time fee is based on a fee schedule in accordance with Ohio Revised Code (ORC) section 3745.11, or based on a time and materials charge for permit application review and permit processing if required by the Director.

You will be sent an invoice for this fee after you receive this PTIO and payment is due within 30 days of the invoice date. You are required to pay the fee for this PTIO even if you do not install or modify your operations as authorized by this permit.

Annual emissions fee. Ohio EPA will assess a separate fee based on the total annual emissions from your facility. You self-report your emissions in accordance with Ohio Administrative Code (OAC) Chapter 3745-78. This fee assessed is based on a fee schedule in ORC section 3745.11 and funds Ohio EPA's permit compliance oversight activities. Unless otherwise specified, facilities subject to one or more synthetic minor restrictions must use Ohio EPA's "Air Services" to submit annual emissions associated with this permit requirement. Ohio EPA will notify you when it is time to report your emissions and to pay your annual emission fees.

**5. When does my PTIO expire, and when do I need to submit my renewal application?**

This permit expires on the date identified at the beginning of this permit document (see "Authorization" page above) and you must submit a renewal application to renew the permit. Ohio EPA will send a renewal notice to you approximately six months prior to the expiration date of this permit. However, it is



very important that you submit a complete renewal permit application (postmarked prior to expiration of this permit) even if you do not receive the renewal notice.

If a complete renewal application is submitted before the expiration date, Ohio EPA considers this a timely application for purposes of ORC section 119.06, and you are authorized to continue operating the emissions unit(s) covered by this permit beyond the expiration date of this permit until final action is taken by Ohio EPA on the renewal application.

**6. What happens to this permit if my project is delayed or I do not install or modify my source?**

This PTIO expires 18 months after the issue date identified on the "Authorization" page above unless otherwise specified if you have not (1) started constructing the new or modified emission sources identified in this permit, or (2) entered into a binding contract to undertake such construction. This deadline can be extended by up to 12 months, provided you apply to Ohio EPA for this extension within a reasonable time before the 18-month period has ended and you can show good cause for any such extension.

**7. What reports must I submit under this permit?**

An annual permit evaluation report (PER) is required in addition to any malfunction reporting required by OAC rule 3745-15-06 or other specific rule-based reporting requirement identified in this permit. Your PER due date is identified in the Authorization section of this permit.

**8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit?**

If you are required to obtain a Title V permit under OAC Chapter 3745-77 in the future, the permit-to-operate portion of this permit will be superseded by the issued Title V permit. From the effective date of the Title V permit forward, this PTIO will effectively become a PTI (permit-to-install) in accordance with OAC rule 3745-31-02(B). The following terms and conditions will no longer be applicable after issuance of the Title V permit: Section B, Term 1.b) and Section C, for each emissions unit, Term a)(2).

The PER requirements in this permit remain effective until the date the Title V permit is issued and is effective, and cease to apply after the effective date of the Title V permit. The final PER obligation will cover operations up to the effective date of the Title V permit and must be submitted on or before the submission deadline identified in this permit on the last day prior to the effective date of the Title V permit.

**9. What are my obligations when I perform scheduled maintenance on air pollution control equipment?**

You must perform scheduled maintenance of air pollution control equipment in accordance with OAC rule 3745-15-06(A). If scheduled maintenance requires shutting down or bypassing any air pollution control equipment, you must also shut down the emissions unit(s) served by the air pollution control equipment during maintenance, unless the conditions of OAC rule 3745-15-06(A)(3) are met. Any emissions that exceed permitted amount(s) under this permit (unless specifically exempted by rule) must be reported as deviations in the annual permit evaluation report (PER), including nonexempt excess emissions that occur during approved scheduled maintenance.



**10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?**

If you have a reportable malfunction of any emissions unit(s) or any associated air pollution control system, you must report this to the Canton City Health Department in accordance with OAC rule 3745-15-06(B). Malfunctions that must be reported are those that result in emissions that exceed permitted emission levels. It is your responsibility to evaluate control equipment breakdowns and operational upsets to determine if a reportable malfunction has occurred.

If you have a malfunction, but determine that it is not a reportable malfunction under OAC rule 3745-15-06(B), it is recommended that you maintain records associated with control equipment breakdown or process upsets. Although it is not a requirement of this permit, Ohio EPA recommends that you maintain records for non-reportable malfunctions.

**11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?**

Yes. Under Ohio law, the Director or his authorized representative may inspect the facility, conduct tests, examine records or reports to determine compliance with air pollution laws and regulations and the terms and conditions of this permit. You must provide, within a reasonable time, any information Ohio EPA requests either verbally or in writing.

**12. What happens if one or more emissions units operated under this permit is/are shut down permanently?**

Ohio EPA can terminate the permit terms associated with any permanently shut down emissions unit. "Shut down" means the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31.

You should notify Ohio EPA of any emissions unit that is permanently shut down by submitting<sup>1</sup> a certification that identifies the date on which the emissions unit was permanently shut down. The certification must be submitted by an authorized official from the facility. You cannot continue to operate an emissions unit once the certification has been submitted to Ohio EPA by the authorized official.

You must comply with all recordkeeping and reporting for any permanently shut down emissions unit in accordance with the provisions of the permit, regulations or laws that were enforceable during the period of operation, such as the requirement to submit a PER, air fee emission report, or malfunction report. You must also keep all records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, for at least five years from the date the record was generated.

Again, you cannot resume operation of any emissions unit certified by the authorized official as being permanently shut down without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

---

<sup>1</sup>Permittees that use Ohio EPA's "Air Services" can mark the affected emissions unit(s) as "permanently shutdown" in the facility profile along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update will constitute notifying of the permanent shutdown of the affected emissions unit(s).



**13. Can I transfer this permit to a new owner or operator?**

You can transfer this permit to a new owner or operator. If you transfer the permit, you must follow the procedures in OAC Chapter 3745-31, including notifying Ohio EPA or the local air agency of the change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder.

**14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?**

This permit and OAC rule 3745-15-07 prohibit operation of the air contaminant source(s) regulated under this permit in a manner that causes a nuisance. Ohio EPA can require additional controls or modification of the requirements of this permit through enforcement orders or judicial enforcement action if, upon investigation, Ohio EPA determines existing operations are causing a nuisance.

**15. What happens if a portion of this permit is determined to be invalid?**

If a portion of this permit is determined to be invalid, the remainder of the terms and conditions remain valid and enforceable. The exception is where the enforceability of terms and conditions are dependent on the term or condition that was declared invalid.



**Final Permit-to-Install and Operate**  
Shearers Foods Massillon OH  
**Permit Number:** P0114069  
**Facility ID:** 1576135005  
**Effective Date:** 6/12/2013

## **B. Facility-Wide Terms and Conditions**



**Final Permit-to-Install and Operate**

Shearers Foods Massillon OH

**Permit Number:** P0114069

**Facility ID:** 1576135005

**Effective Date:** 6/12/2013

1. This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
  - a) For the purpose of a permit-to-install document, the facility-wide terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
    - (1) None.
  - b) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
    - (1) None.



**Final Permit-to-Install and Operate**  
Shearers Foods Massillon OH  
**Permit Number:** P0114069  
**Facility ID:** 1576135005  
**Effective Date:** 6/12/2013

## **C. Emissions Unit Terms and Conditions**



**1. P003, PC2100 Continuous Potato Chip Fryer with HX**

**Operations, Property and/or Equipment Description:**

PC2100 Continuous potato chip fryer with exhaust hood controlled by oil mist eliminator and 12.5 MM Btu/hr hot oil natural gas-fired heat exchanger.

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) **Applicable Emissions Limitations and/or Control Requirements**

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), as effective 11/30/2001 [Best Available Technology (BAT)]	Particulate Emissions (PE) shall not exceed 0.84 pounds per hour and 3.7 tons per year as a combined total from the potato chip fryer and the combustion of natural gas in the heat exchanger.  Nitrogen Oxide (NO <sub>x</sub> ) emissions shall not exceed 1.25 pounds per hour and 5.48 tons per year from the combustion of natural gas in the heat exchanger.  Carbon Monoxide (CO) emissions shall not exceed 1.05 pounds per hour and 4.60 tons per year from the combustion of natural gas in the heat exchanger.  See b)(2)a, b)(2)b, b)(2)c and c)(1).



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
b.	OAC rule 3745-31-05(A)(3), as effective 12/01/2006 [Less than 10 tons per year BAT exemption]	See b)(2)d.
c.	OAC rule 3745-17-10	PE shall not exceed 0.02 pounds per MMBtu actual heat input.
d.	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) from the stack serving this emissions unit shall not exceed 20% opacity as a six-minute average, except as provided by the rule.
e.	OAC rule 3745-18-06(G)	This emissions unit is exempt from the requirements of OAC rule 3745-18-06(G) during any calendar day in which natural gas is the only fuel combusted. See c)(2).
f.	OAC rule 3745-17-11	The emissions limitation specified by this rule is less stringent than the emissions limitation established pursuant to OAC rule 3745-31-05(A)(3) as effective 11/30/2001. See b)(2)(d)(iii).

(2) Additional Terms and Conditions

- a. The Best Available Technology (BAT) has been determined to be the use of the oil mist eliminator and the use of natural gas.
- b. The potential emissions of sulfur dioxide (SO<sub>2</sub>) associated with the combustion of natural gas in the heat exchanger along with the potential emissions of volatile organic compounds (VOC) associated with both the combustion of natural gas and the potato chip fryer oil mist are negligible (less than 0.4 tons per year), and therefore emissions limitations for these pollutants have not been established for this emissions unit.
- c. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B 265 changes), such that BAT is no longer required by State regulations for NAAQS pollutant less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-31-05, the requirement to



**Final Permit-to-Install and Operate**

Shearers Foods Massillon OH

**Permit Number:** P0114069

**Facility ID:** 1576135005

**Effective Date:** 6/12/2013

satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, then these emission limits/control measures no longer apply.

- d. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.
  - i. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the particulate emissions (PE) from this air contaminant source since the calculated annual emission rate for PE is less than 10 tons per yeartaking into account the use of the oil mist eliminator.
  - ii. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the NO<sub>x</sub> and CO emissions from this air contaminant source since the uncontrolled potential to emit for NO<sub>x</sub> and CO are less than 10 tons per year each.
  - iii. Pursuant to OAC rule 3745-17-11(B)(1), particulate emissions (PE) shall not exceed 4.24 pounds per hour as a combined total from the potato chip fryer and the combustion of natural gas in the heat exchanger.
- c) Operational Restrictions
  - (1) The permittee shall operate the oil mist eliminator any time this emissions unit is in operation.
  - (2) The permittee shall burn only natural gas in this emissions unit.
- d) Monitoring and/or Recordkeeping Requirements
  - (1) The permittee shall maintain daily records that document any time periods when the oil mist eliminator was not in service when the emissions unit was in operation.
  - (2) For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
- e) Reporting Requirements
  - (1) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit. It is recommended that the PER is submitted electronically through the Ohio EPA's "e-Business Center: Air Services" although PERs can be submitted via U.S. postal service or can be hand delivered.



- (2) The permittee shall report in the PER excursions/deviations that identify:
- a. each day that the oil mist eliminator was not in service when the emissions unit was in operation; and
  - b. each day when a fuel other than natural gas was burned in this emission unit.

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitations:

Particulate emissions (PE) shall not exceed 0.84 pounds per hour and 3.7 tons per year as a combined total from the potato chip fryer and the combustion of natural gas from the heat exchanger.

Applicable Compliance Method:

The lbs/hr PE emission limit for the potato chip fryer was established by setting the limit equal to the maximum controlled potential to emit of this emission unit. The potential emissions in this emissions unit are generated from the potato chip frying and the natural gas combustion in the heat exchanger. The maximum controlled potential emissions from the potato chip fryer were calculated by using the manufacturer's maximum throughput data, supplied by the permittee, of 2,100 lbs chips produced/hr and the emission factor from AP-42 "Compilation of Air Pollutant Emission Factors", Table 9.13.3-2 of 0.7 lbs<sub>PM</sub>/ton of chips produced for a fryer controlled by a mesh pad mist eliminator, as shown below as ①. The maximum potential emissions for the combustion of natural gas were calculated by using the emission factor from AP-42 "Compilation of Air Pollutant Emission Factors", Table 1.4-2 (7/98) of 7.6 lbs<sub>PM</sub>/MMcf, the natural gas heat content conversion factor of 1 cf/1,000 Btu, and the maximum heat input rating of the heat exchanger of 12.5 MMBtu/hr, supplied by the permittee, as shown below as ②. The total PE from this emission unit is the sum of ① and ②, as shown below.

① Potato Chip Fryer:

$$(0.70 \text{ lbs}_{\text{PM}}/\text{ton chips}) \times (2,100 \text{ lbs chips produced/hr}) \times (1 \text{ ton}/2,000 \text{ lbs}) \\ = 0.74 \text{ lbs}_{\text{PM}}/\text{hr}$$

② Natural gas combustion:

$$(7.6 \text{ lbs}_{\text{PM}}/\text{MMcf}) \times (1 \text{ cf}/1,000 \text{ Btu}) \times (12.5 \text{ MMBtu/hr}) = 0.10 \text{ lbs}_{\text{PM}}/\text{hr}$$

$$\text{①} + \text{②} = 0.74 + 0.10 = 0.84 \text{ lbs}_{\text{PE}}/\text{hr}$$

The annual emission limit was established by multiplying the hourly emission rate by the maximum hours of operation (8,760 hours/year) and dividing by 2,000 lbs/ton to yield the tons of PE per year value, as shown below.



$$(0.84 \text{ lbs}_{\text{PE}}/\text{hr}) \times (8,760 \text{ hrs}/\text{yr}) \div (2,000 \text{ lbs}/\text{ton}) = 3.7 \text{ tons}_{\text{PE}}/\text{yr}$$

Therefore, provided compliance is shown with the lbs/hr limitation, compliance shall also be shown with the annual limitation.

Actual emissions can be calculated using a similar methodology as shown above by substituting the maximum values with the actual throughput of chips produced per hour, the actual heat input of the heat exchanger, the actual fuel heat content, and the actual operating hours.

If required, the permittee shall demonstrate compliance with the lbs/hr emission limitation through emission tests performed according to test Methods 1 - 5 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

b. Emission Limitations:

Nitrogen Oxide emissions ( $\text{NO}_x$ ) shall not exceed 1.25 pounds per hour and 5.48 tons per year from the combustion of natural gas in the heat exchanger.

Applicable Compliance Method:

The lbs/hr $\text{NO}_x$  emission limit was established by setting the limit equal to the maximum uncontrolled potential to emit of this emission unit. The potential  $\text{NO}_x$  emissions in this emission unit are generated from the natural gas combustion in the heat exchanger. The maximum potential emissions for the combustion of natural gas were calculated by using the emission factor from AP-42 "Compilation of Air Pollutant Emission Factors", Table 1.4-2 (7/98) of 100 lbs $\text{NO}_x$ /MMcf, the natural gas heat content conversion factor of 1 cf/1,000 Btu, and the maximum heat input rating of the heat exchanger of 12.5 MMBtu/hr, supplied by the permittee, as shown below.

$$(100 \text{ lbs}_{\text{NO}_x}/\text{MMcf}) \times (1 \text{ cf}/1,000 \text{ Btu}) \times (12.5 \text{ MMBtu}/\text{hr}) = 1.25 \text{ lbs}_{\text{NO}_x}/\text{hr}$$

The annual emission limit was established by multiplying the hourly emission rate by the maximum hours of operation (8,760 hours/year) and dividing by 2,000 lbs/ton to yield the tons of  $\text{NO}_x$  per year value, as shown below.

$$(1.25 \text{ lbs}_{\text{NO}_x}/\text{hr}) \times (8,760 \text{ hrs}/\text{yr}) \div (2,000 \text{ lbs}/\text{ton}) = 5.48 \text{ tons}_{\text{NO}_x}/\text{yr}$$

Therefore, provided compliance is shown with the lbs/hr limitation, compliance shall also be shown with the annual limitation.

Actual emissions can be calculated using a similar methodology as shown above by substituting the maximum values with the actual heat input of the heat exchanger, the actual fuel heat content, and the actual operating hours.

If required, the permittee shall demonstrate compliance with the lbs/hr emission limitation through emission tests performed according to test Methods 1 - 4, and 7 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards



of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

c. Emission Limitations:

Carbon Monoxide emissions (CO) shall not exceed 1.05 pounds per hour and 4.60 tons per year from the combustion of natural gas in the heat exchanger.

Applicable Compliance Method:

The lbs/hr CO emission limit was established by setting the limit equal to the maximum uncontrolled potential to emit of this emission unit. The potential CO emissions in this emission unit are generated from the natural gas combustion in the heat exchanger. The maximum potential emissions for the combustion of natural gas were calculated by using the emission factor from AP-42 "Compilation of Air Pollutant Emission Factors", Table 1.4-2 (7/98) of 84 lbs CO/MMcf, the natural gas heat content conversion factor of 1 cf/1,000 Btu, and the maximum heat input rating of the heat exchanger of 12.5 MMBtu/hr, supplied by the permittee, as shown below.

$$(84 \text{ lbs}_{\text{CO}}/\text{MMcf}) \times (1 \text{ cf}/1,000 \text{ Btu}) \times (12.5 \text{ MMBtu}/\text{hr}) = 1.05 \text{ lbs}_{\text{CO}}/\text{hr}$$

The annual emission limit was established by multiplying the hourly emission rate by the maximum hours of operation (8,760 hours/year) and dividing by 2,000 lbs/ton to yield the tons of CO per year value, as shown below.

$$(1.05 \text{ lbs}_{\text{CO}}/\text{hr}) \times (8,760 \text{ hrs}/\text{yr}) \div (2,000 \text{ lbs}/\text{ton}) = 4.60 \text{ tons}_{\text{CO}}/\text{yr}$$

Therefore, provided compliance is shown with the lbs/hr limitation, compliance shall also be shown with the annual limitation.

Actual emissions can be calculated using a similar methodology as shown above by substituting the maximum values with the actual heat input of the heat exchanger, the actual fuel heat content, and the actual operating hours.

If required, the permittee shall demonstrate compliance with the lbs/hr emission limitation through emission tests performed according to test Methods 1 - 4, and 10 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. Emission Limitation:

Particulate Emissions (PE) shall not exceed 0.02 pounds per million Btu actual heat input.

Applicable Compliance Method:

AP-42 "Compilation of Air Pollutant Emission Factors", Section 1.4-6, Table 1.4-2 (7/98) lists the emission factor for PM as 7.6 lbs/MMscf. The lbs/MMBtu emission limit was compared to the emission factor by multiplying the emission



factor of 7.6 lbs/MMscf by the natural gas heat content conversion factor of 1 cf/1,000 Btu, as shown below.

$$(7.6 \text{ lbs/MMscf}) \times (1 \text{ cf/1,000 Btu}) = 0.0076 \text{ lbs}_{\text{PM}}/\text{MMBtu}$$

Because 0.0076 lbs<sub>PM</sub>/MMBtu actual heat input is less than the 0.02 lbs<sub>PM</sub>/MMBtu actual heat input limitation, compliance with this limit is demonstrated.

If required, the permittee shall demonstrate compliance with the lbs/hr emission limitation through emission tests performed according to Method 5 as set forth in OAC rule 3745-17-03(B)(9). Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

e. Emission Limitations:

Visible PE shall not exceed 20% opacity from the stack, as a 6-minute average except as provided by rule.

Applicable Compliance Method:

If required, compliance with the visible emission limitation above shall be determined in accordance with the methods specified in OAC rule 3745-17-03(B)(1).

f. Emission Limitation:

Particulate Emissions (PE) shall not exceed 4.24 pounds per hour as a combined total from the potato chip fryer and the combustion of natural gas in the heat exchanger.

Applicable Compliance Method:

The lbs/hr PE emission limitation was established by using OAC Rule 3745-17-11(B)(1). This particular rule states that any source of particulate matter located within certain counties must not exceed the allowable emission rates specified by either “curve P-1” of “Figure II” or by “Table I” in the appendix to this rule, whichever is applicable under paragraph (A)(2) of this rule. After following paragraph (A)(2), it was determined that this source complies with the requirements of “Table I” in the Appendix. This table relates process rate of materials introduced into any specific process (at its maximum capacity) that may result in particulate emissions to maximum allowable mass rate of emission. Using “Table I”, the maximum production capacity (P) of the potato chip fryer (2,100 lbs chips produced/hr) corresponds to an allowable rate of particulate emission (E). Since the maximum capacity of 2,100 lbs/hr is not specifically listed in the table, the precise allowable rate of particulate emission is obtained by use of the following equation given at the bottom of the table, as shown below.

$$P = 2,100 \text{ lbs/hr} = 1.05 \text{ tons/hr}$$

$$E = 4.10 \times (P)^{0.67} = 4.10 \times (1.05)^{0.67} = 4.24 \text{ lbs/hr}$$



**Final Permit-to-Install and Operate**

Shearers Foods Massillon OH

**Permit Number:** P0114069

**Facility ID:** 1576135005

**Effective Date:** 6/12/2013

If required, the permittee shall demonstrate compliance with the lbs/hr emission limitation through emission tests performed according to Method 5 as set forth in OAC rule 3745-17-03(B)(10). Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

g) Miscellaneous Requirements

(1) None.