

State of Ohio Environmental Protection Agency

STREET ADDRESS:

Lazarus Government Center 50 W. Town St., Suite 700 Columbus, Ohio 43215 TELE: (614) 644-3020 FAX: (614) 644-3184 www.epa.state.oh.us

P.O. Box 1049 Columbus, OH 43216-1049

MAILING ADDRESS:

December 11, 2009

Re:

Massillon

Stark County

Application No. 727473

Application for Pretreatment - Wastewater Neutralization System for Shearer's Foods Massillon Facility at 4100 Millennium Drive SE Plans Received on September 28, 2009 Revised Plans Received December 4, 2009

From: Rader Engineering, Inc.

**CERTIFIED MAIL** 

Shearer's Foods, Inc. Attn: Terry Mustard, VP Engineering 4100 Millennium Drive SE Massillon, OH 44646

Ladies and Gentlemen:

Enclosed is the Ohio EPA Permit to Install which will allow you to install the described source in the manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

You are hereby notified that this action of the Director is final 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 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, 309 South Fourth Street, Room 222, Columbus, Ohio 43215

You should note that a general condition of your permit states that issuance of the permit does not relieve you of the duty of complying with all applicable federal, state, and local laws, ordinances, and regulations.

If you have any questions, please contact the Ohio EPA district office to which you submitted your application.

Diricelety,

Patti L. Smith, Supervisor Permit Processing Unit Division of Surface Water

PLS/sg Enclosure

CC:

Northeast District Office Rader Engineering, Inc. City of Massillon WWTP

> Ted Strickland, Governor Lee Fisher, Lieutenant Governor Chris Korleski, Director



# Ohio Environmental Protection Agency

#### Permit to Install

Application No: 727473

Applicant Name:

Shearer's Foods, Inc.

Address:

4100 Millennium Drive SE

City:

Massillon

State Zip:

OH 44646

Person to Contact:

Terry Mustard, VP Engineering

Telephone:

330-767-7180

Description of Proposed Source: Pretreatment - Wastewater Neutralization System for Shearer's

Foods Massillon Facility at 4100 Millennium Drive SE, Massillon,

Stark County

Issuance Date: December 11, 2009 Effective Date: December 11, 2009

The above named entity is hereby granted a permit to install for the above described source pursuant to Chapter 3745-42 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 above described source of environmental pollutants will operate in compliance with applicable state and federal laws and regulations. Issuance of this permit does not constitute expressed or implied assurance that, if constructed or modified in accordance with those plans and specifications, the above described source of pollutants will be granted the necessary operating permits. This permit is granted subject to the following conditions attached hereto.

Ohio Environmental Protection Agency

Chris Korleski Director P.O. Box 1049

50 West Town Street, Suite 700

Columbus, OH 43216-1049

Shearer's Foods, Inc. Page 3 of 4 December 11, 2009

This permit applies to a wastewater disposal system designed to serve an average hydraulic flow of no more than 50 gallons/minute.

Roof drains, foundation drains, and other clean water connections to the disposal system are prohibited.

No liquids, sludges, or toxic or hazardous substances other than those set forth in the approved permit shall be accepted for disposal without the prior written approval of the Ohio Environmental Protection Agency.

Sewer and manhole construction joints shall conform to standards of the Ohio Environmental -Protection Agency.

When flexible pipe (PVC, ABS, HDPE, etc.) is used it must be tested for maximum deflection of 5 percent after the final backfill has been in place no less than 30 days to permit stabilization of the soil-pipe system. Pipe with a stiffness of 200 p.s.i. or greater need not be tested for deflection if all pipe between manholes is less than 12 feet below final grade.

The rigid ball or mandrel used for the deflection test shall have a diameter not less than 95 percent of the base inside diameter or average inside diameter of the pipe depending on which is specified in the ASTM specification, including the appendix, to which the pipe is manufactured. The test shall be performed without mechanical pulling devices.

All pipe, flexible and rigid, shall be subject to a leakage test. The leakage exfiltration/infiltration test shall be a hydrostatic or air test. The hydrostatic leakage test shall not exceed 100 gallons per inch of pipe diameter per mile per day for any section of the system. If an air test is used, the test shall conform to the test procedure outlined in the ASTM standards for the material of pipe used.

The leakage and deflection test shall be conducted under the supervision of a professional engineer. A representative of the professional engineer may supervise the deflection and leakage tests, but the professional engineer must sign off on the results of the deflection and leakage tests. Results of the deflection and leakage tests shall be kept on file at least 180 days by the entity responsible for the sewerage system, and shall be available upon request by the Ohio Environmental Protection Agency. Any lines which fail the deflection or leakage test must be repaired and retested until they meet the requirements which have been set forth within this condition.

All residuals from pretreatment facilities, whether defined hazardous or nonhazardous, shall be stored, transported, treated, and disposed in a manner that will comply with all applicable local, state, and federal regulations.

Plans for any modifications of pretreatment facilities required for the attainment of U.S. EPA regulations and/or local limitations set by the City of Massillon must be submitted to the City of Massillon and the appropriate district office of the Ohio Environmental Protection Agency for approval prior to the installation of such facilities.

The City of Massillon Publicly Owned Treatment Works (POTW) officials shall be notified of any spills and unusual discharges to the sewer system immediately after discovery of such an occurrence.

All wastewater discharges that will adversely affect the operation, maintenance, or treatment capabilities of the Massillon sewer and/or wastewater treatment systems are prohibited.

Daily records of operation shall be maintained and be available for review and inspection to the City of Massillon and the Ohio Environmental Protection Agency upon request.

Shearer's Foods, Inc. Page 2 of 4 December 11, 2009

This permit shall expire if construction has not been initiated by the applicant within eighteen months of the effective date of this permit. By accepting this permit, the applicant acknowledges that this eighteen month period shall not be considered or construed as extending or having any effect whatsoever on any compliance schedule or deadline set forth in any administrative or court order issued to or binding upon the permit applicant, and the applicant shall abide by such compliance schedules or deadlines to avoid the initiation of additional legal action by the Ohio EPA.

The director of the Ohio Environmental Protection Agency, or his authorized representatives, may enter upon the premises of the above named applicant during construction and operation at any reasonable time for the purpose of making inspections, conducting tests, examining records, or reports pertaining to the construction, modification, or installation of the above described source of environmental pollutants.

Issuance of this permit does not relieve you of the duty of complying with all applicable federal, state, and local laws, ordinances, and regulations.

Any well, well point, pit, or other device installed for the purpose of lowering the ground water level to facilitate construction of this project shall be properly abandoned in accordance with the provisions of this plan or as directed by the director or his representative.

Any person installing any well, well point, pit or other device used for the purpose of removing ground water from an aquifer shall complete and file a Well Log and Drilling Report form with the Ohio Department of Natural Resources, Division of Water, within 30 days of the well completion in accordance with the Ohio Revised code Section 1521.01 and 1521.05. In addition, any such facility that has a capacity to withdraw waters of the state in an amount greater than 100,000 gallons per day from all sources shall be registered by the owner with the chief of the Division of Water, Ohio Department of Natural Resources, within three months after the facility is completed in accordance with Section 1521.16 of the Ohio Revised Code. For copies of the necessary well log, drilling report, or registration forms, please contact:

Ohio Department of Natural Resources 2045 Morse Road Bldg. E Columbus, OH 43229-6693 (614) 265-6717

The proposed wastewater disposal system shall be constructed in strict accordance with the plans and application approved by the director of the Ohio Environmental Protection Agency. There shall be no deviation from these plans without the prior express, written approval of the agency. Any deviations from these plans or the above conditions may lead to such sanctions and penalties as provided for under Ohio law. Approval of these plans and issuance of this permit does not constitute an assurance by the Ohio Environmental Protection Agency that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources are inadequate or cannot meet applicable standards.

Shearer's Foods, Inc. shall be responsible for proper operation and maintenance of the wastewater disposal system.

This permit to install applies only to the wastewater disposal system listed above. The installation of drinking water supplies, air contaminant sources, or solid waste disposal facilities will require the submittal of a separate application to the director.

Shearer's Foods, Inc. Page 4 of 4 December 11, 2009

Shearer's Foods, Inc. shall provide a suitable location to collect representative samples of process wastewater which is discharged into the sanitary sewer.

Shearer's Foods, Inc. shall comply with all applicable U.S. EPA categorical pretreatment standards and local pretreatment regulations as they are adopted from time to time.

The permit to install is not an authorization to discharge pollutants to waters of the state. Pursuant to Chapter 6111 of the Ohio Revised Code, the applicant shall apply for a permit to discharge (NPDES) 180 days prior to any discharge of pollutants to waters of the state.

# Summary Report on Permit-To-Install Application No. 727473 Wastewater Neutralization System Shearer's Foods, Inc., Massillon, Stark County

### **FACILITY DESCRIPTION**

Facility Name:

Shearer's Food's, Inc. - Massillon Facility.

Facility Location: Type of Facility:

4100 Millennium Drive SE, Massillon, Stark County. Food processor; manufacture of snacks from corn.

Type of wastewater to be

Wastewater from corn processing and other operations.

treated:

Discharge:

Sanitary sewer to Massillon WWTP.

#### INTRODUCTION

Shearer's Food's, Inc., is a food processer manufacturing snack products. Shearer's is building a new production facility in Massillon that will process corn, which includes soaking the corn in alkaline water. There will also be basic and acidic compounds used for cleaning and sanitizing. Consequently, Shearer's is installing a neutralization system to pretreat the wastewater prior to discharge to the Massillon sanitary sewer system.

The PTI application was received on September 28, 2009, and final information received December 4, 2009. The PTI application/plans were prepared by Rader Engineering, Inc., and the detailed plans were stamped by James Rader, P.E. The Massillon discharge authorization letter was received October 20, 2009.

#### SYSTEM DESIGN

Wastewater is generated from corn washing, soaking, grinding, and cooking; equipment cleaning and sanitation; and process streams such as softener backwash and boiler blowdown. The majority of the wastewater is generated during the corn processing operations, and is alkaline due to those operations. The wastewater flows by gravity into the 700 gallon first compartment of a two compartment lift station. Two VFD submersible pumps in a lead/lag configuration pump the wastewater through a mechanical screen separator, and the filtered water returned to the second 1200 gallon compartment of the lift station. The inner wall between the two compartments is configured to allow wastewater to overflow from the first compartment to the second in the event of a pump or screen failure. The second compartment also contains an overflow that bypasses the neutralization system, flowing into the first section of the stilling manhole, discussed below.

The two VFD submersible pumps in a lead/lag configuration pump the wastewater through a flowmeter and static mixer, where sulfuric acid and caustic are injected to neutralize the wastewater. The pH probe in the second lift station compartment signals whether or not the pH is within range, and activates the pumps if it is not. The chemical feed rate is determined by the flowmeter and a second pH probe immediately downstream of the static mixer.

The wastewater is then collected in a 65,000 gallon cone bottom equalization tank that contains a third pH meter to verify that the pH is within an acceptable range. Wastewater flows out of the tank through a pipe inserted in the side approximately halfway up the side of the tank and into a 368 gallon stilling manhole divided by a baffle. The first section, comprising approximately two/thirds of the manhole, contains a mixer and can receive acid and caustic. The second section is energy absorbing in order to minimize foam and to ensure that the flow into the Parshall flume is laminar. The second section also contains a fourth pH probe which directs the chemical feed into the first compartment, and measures the pH of the wastewater discharged to the sanitary sewer.

The equalization tank contains a bottom outlet to remove accumulated solids, if needed. The overflow from the second lift station compartment is routed to the first section of the stilling manhole, so it can be pH adjusted and is included in both the pH and flow measurements. The flow measured at the Parshall flume will be used to conduct flow proportional sampling with an automatic sampler.

The pretreatment system is designed for an average flow rate of 50 gpm and a peak flow rate of 80 gpm, and to meet City of Massillon local limits.

#### **CONSTRUCTION SCHEDULE**

Construction begin: 12/01/2009\* Operation begin: 02/15/2010\*

Construction Complete: 01/25/2010\*

\*From application; installation will not begin until PTI approval is received

CAPITAL COST: \$375,000

## RECOMMENDATION

The approval of the permit-to-install is recommended, subject to the standard conditions.

Prepared by:

Donna J. Kniss

Environmental Engineer Division of Surface Water

Donnes J Knim

DKN/VLW/mt December 8, 2009

File: Pretreatment Industrial User/General PTI

Reviewed by:

Virginia L. Wilson, P.E.

Unit Supervisor

Division of Surface Water