

TENNESSEE AIR POLLUTION CONTROL BOARD
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
NASHVILLE, TENNESSEE 37243-1531



Permit to Construct or Modify an Air Contaminant Source Issued Pursuant to Tennessee Air Quality Act

Date Issued: March 16, 2009

Permit Number:

Date Amended: December 15, 2009

962395P

Date Expires: July 31, 2010

Issued To:

Heraeus Metal Processing

Installation Address:

Rt. 62 E. Knoxville Highway
Wartburg

Installation Description:

Rotary Furnace
Baghouse Control

Emission Source Reference No.

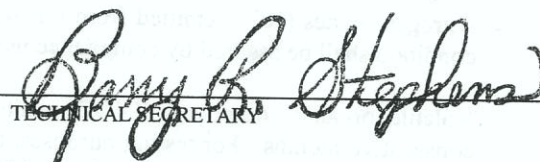
65-0049-09
Title V Source

The holder of this permit shall comply with the conditions contained in this permit as well as all applicable provisions of the Tennessee Air Pollution Control Regulations.

CONDITIONS:

1. The application that was utilized in the preparation of this permit was received October 3, 2008, and is signed by Dan West, Director of Operations for the permitted facility. Additional information was received December 1, 2009, and is signed by Thomas Broderick, Acting Director of Operations. If this person terminates employment or is assigned different duties and is no longer the responsible person to represent and bind the facility in environmental permitting affairs, the owner or operator of this air contaminant source shall notify the Technical Secretary of the change. Said notification shall be in writing and submitted within thirty (30) days of the change. The notification shall include the name and title of the new person assigned by the source owner or operator to represent and bind the facility in environmental permitting affairs. All representations, agreement to terms and conditions and/or covenants made by the former responsible person that were used in the establishment of limiting permit conditions on this permit will continue to be binding on the facility until such time that a revision to this permit is obtained that would change said representations, agreements and/or covenants.

(conditions continued on next page)


TECHNICAL SECRETARY

No Authority is Granted by this Permit to Operate, Construct, or Maintain any Installation in Violation of any Law, Statute, Code, Ordinance, Rule, or Regulation of the State of Tennessee or any of its Political Subdivisions.

NON-TRANSFERABLE

POST AT INSTALLATION ADDRESS

I. General Requirements

2. Air pollution control equipment (baghouse) used by this source shall be operating at all times when this source is operating.
3. Fugitive emissions from this source shall be controlled as specified in Rule 1200-3-8-.01. Specifically, no person shall cause, suffer, allow, or permit fugitive dust to be emitted in such manner to exceed five (5) minutes per hour or twenty (20) minutes per day as to produce a visible emission beyond the property line of the property on which the emission originates, excluding malfunction of equipment as provided in Chapter 1200-3-20. Fugitive emissions from this source shall be determined by Tennessee Visible Emissions Evaluation Method 4 as adopted by the Tennessee Air Pollution Control Board on April 16, 1986.
4. Routine maintenance, as required to maintain specified emission limits, shall be performed on the air pollution control devices. Maintenance records shall be recorded in a suitable permanent form and kept available for inspection by the Division. These records must be retained for a period of not less than five (5) years.
5. Upon the malfunction/failure of any emission control device(s) serving this source, the operation of the process served by the device shall be regulated by Chapter 1200-3-20 of the Tennessee Air Pollution Control Regulations.
6. This permit shall serve as a temporary operating permit from initial start-up to the receipt of a Title V operating permit provided the conditions of this permit and any applicable emission standards are met.

II. Input and Emission Limits

7. The stated heat input capacity of the furnace is 1.5 million British Thermal Units per hour (MMBtu/hr). The Technical Secretary may require the permittee to prove compliance with this rate. The process heater must be equipped with low nitrogen oxide (NO_x) technology. Compliance with this condition shall be assured by maintaining documentation from the manufacturer that clearly states the furnace is equipped with low NO_x technology. TAPCR 1200-3-6-.03(2).
8. Only natural gas shall be used as fuel for this source. TAPCR 1200-3-7-.07(2).
9. The total raw material input to this source shall not exceed 1,500 pounds per hour. The Technical Secretary may require the permittee to prove compliance with this rate. TAPCR 1200-3-7-.07(2).
10. Particulate matter emitted from this source shall not exceed 0.02 grain per dry cubic foot of stack gases corrected to 70°F and 1 atmosphere (0.23 pounds per hour). Compliance with this condition shall be assured by compliance with conditions 2 and 21. TAPCR 1200-3-7-.04(2) and the agreement letter dated October 1, 2008.
11. Sulfur dioxide (SO₂) emitted from this source shall not exceed 1.0 pounds per hour on a daily average. Compliance with this condition shall be assured by compliance with conditions 7 and 8. TAPCR 1200-3-14-.01(3) and the agreement letter dated March 10, 2009.
12. Nitrogen oxides (NO_x) emitted from this source shall not exceed 0.15 lb/hr, based on daily average. Compliance with this condition shall be assured by compliance with conditions 7 and 8. TAPCR 1200-3-7-.07(2).
13. Volatile organic compounds (VOC) emitted from this source shall not exceed 3.0 tons during any period of twelve consecutive months. For testing purposes, the maximum rate is 0.675 pounds per hour. Compliance with this condition shall be assured by compliance with condition 20. TAPCR 1200-3-7-.07(2).
14. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity except for one six-minute period per one (1) hour or for no more than four (4) six-minute periods in any twenty four (24) hour period. Visible emissions from this source shall be determined by EPA Method 9, as published in 40 CFR 60, Appendix A (six-minute average).

(conditions continued on next page)

III. Recordkeeping Requirements

15. The following requirements shall apply to all recordkeeping:
- (a) For all monthly logs, all data, including all required calculations, must be entered in the log no later than thirty (30) days from the end of the month for which the data is required.
 - (b) For all weekly logs, all data, including all required calculations, must be entered in the log no later than seven (7) days from the end of the week for which the data is required.
 - (c) For all daily logs, all data, including all required calculations, must be entered in the log no later than seven (7) days from the end of the day for which the data is required.
 - (d) All maintenance activities required by condition 4 (including any ongoing maintenance that has not been completed) shall be entered in the maintenance log no later than seven (7) days following the start of the maintenance.

IV. Testing Requirements

16. Within 60 days after achieving the maximum production rate at which this source will be operated, but no later than 180 days after the amended date of December 15, 2009, the owner or operator shall furnish the Technical Secretary a written report of the results of an emissions performance test to determine the emission rates for the following pollutants:
- (a) Particulate matter; and
 - (b) VOC.
- The source test shall be conducted and data reduced in accordance with methodology allowed by the Tennessee Division of Air Pollution Control (TDAPC). At least thirty (30) days prior to the actual test date, the Technical Secretary shall be notified of the official test date and shall be in receipt of a test protocol detailing both test methods to be used and operational parameters to be monitored to assure continual compliance.
17. At least thirty (30) days prior to any source test, the Technical Secretary shall be given written notice of the test in order to afford him the opportunity to have an observer present.
18. During the emissions performance test required by condition 16, the operating parameters listed below shall be monitored and recorded as indicated in conditions 15, 20, and 21. The written report of the emissions test shall include proposed minimum values for each operating parameter limit. Except as noted in condition 19, these limits shall become effective immediately upon submittal of the written report.
- (a) Furnace operating temperature, in degrees Fahrenheit;
 - (b) Baghouse pressure drop measured in inches of water column.
19. If the Technical Secretary disapproves any operating parameter proposed by the permittee in condition 18, the permittee shall comply with revised limits within thirty (30) days of written notification by the Technical Secretary.

(conditions continued on next page)

V. Monitoring Requirements

20. Compliance with condition 13 shall be assured by compliance with the following:

- (a) The permittee shall operate all continuous monitoring equipment required by this permit at all times when this source is operating. The permittee shall maintain written manufacturer's specifications for all continuous monitoring equipment at the source location for the life of the source. These specifications shall be kept available for inspection by the Technical Secretary or his representative.
- (b) All monitoring equipment used by this source shall be installed, calibrated, maintained, and operated in compliance with the manufacturer's written specifications or recommendations, and in a manner that allows the accurate measurement of each monitored parameter across the entire range of expected conditions. The permittee shall maintain copies of manufacturer's specifications for all monitoring equipment for the life of the source. These specifications shall be made available to the Technical Secretary or his representative upon request.
- (c) The temperature of the furnace shall be monitored as follows:
 - i) All continuous monitoring equipment shall be installed and operational upon startup of this source.
 - ii) The continuous monitoring equipment shall monitor the combustion chamber temperature of the furnace.
 - iii) The temperature monitoring equipment shall be equipped with a continuous recorder and have accuracy within one percent (1%) of the combustion temperature expressed in degrees Fahrenheit (°F) or within 0.5°F, whichever is greater.
 - iv) Using data obtained from the continuous recorder, the permittee shall calculate the average temperature of the furnace for each hour that the source is in operation.
 - v) Excursions below the minimum operating temperature specified in condition 18 shall not be considered violations of this condition unless the average temperature during any period of three consecutive hours is more than 50 °F below the minimum operating temperature.
 - vi) Excursions below the minimum operating temperature resulting from startups, shutdowns, or malfunctions shall not be considered violations of this condition.
 - vii) All three-hour periods of operation during which the average combustion temperature is more than 50 °F below the minimum operating temperature shall be reported to the Division as specified in condition 22.
 - viii) Temperature monitoring records, including records of all excursions, shall be documented in a suitable permanent form and kept available for inspection by the Division. These records must be retained for a period of not less than five (5) years.

21. Compliance with condition 10 shall be assured as follows:

- (a) The permittee shall install a baghouse pressure gauge to measure the pressure drop (inches of water) across the baghouse. Upon startup of this new source, the permittee shall compile thirty (30) days of pressure drop readings across the baghouse. The designated person(s) shall note any relevant baghouse conditions/problems/concerns when recording the values.
- (b) The pressure drop data, including a proposed minimum pressure drop value, shall be submitted to the Division no later than 15 days after completion of the readings. In addition to the pressure drop data, the permittee shall submit vendor recommended baghouse specifications/parameters/operating practices for proper baghouse operation at this time. The data and baghouse information shall be submitted to the East Tennessee Permit Program and the Knoxville Environmental Field Office at the following addresses:

East Tennessee Permit Program
Division of Air Pollution Control
9th Floor, L & C Annex
401 Church Street
Nashville, TN 37243-1531

Knoxville Environmental Field Office
Division of Air Pollution Control
2700 Middlebrook Pike
Knoxville, TN 37921

- (c) Upon review and approval of the pressure drop data by the Technical Secretary, the minimum pressure drop value shall be incorporated into this permit by reference. The permittee shall demonstrate compliance with condition 10 by maintaining the approved minimum pressure drop across the baghouse.

(conditions continued on next page)

- (d) The permittee shall record a minimum of one pressure drop reading per day in a log. The log shall include the time of the reading, the value read, the name of the plant operator recording the value, and any relevant comments as needed. The permittee shall note all days when the source is not operating. This requirement is applicable upon startup of the source, regardless of whether a minimum pressure drop has been established.
- (e) If the pressure drop reading falls below the minimum value, the operator shall inspect the baghouse and initiate corrective actions to bring the pressure drop to or above the minimum value.
- (f) The operator shall note all inspection findings and corrective actions in the log. For lower pressure drop reading(s) resulting from replacement of bags, the permittee shall record the deviation(s) as such in their daily records. Due allowance will be made for lower pressure drop reading(s) which follow replacement of bags, provided the permittee establishes to the satisfaction of the Technical Secretary that these lower readings resulted from bag replacement.
- (g) These logs shall be recorded in a suitable permanent form and kept available for inspection by the Division. These records must be retained for a period of not less than five (5) years.

VI. Reporting Requirements

22. The permittee shall submit semiannual reports to the Technical Secretary. The first report shall cover the period from the issue date of this permit until **September 30, 2009**. The report shall be submitted within sixty (60) days after the reporting period ending **September 30, 2009**. Subsequent reports shall be submitted within sixty (60) days after the end of each six (6) month period following the first report. These semiannual reports shall include any monitoring and recordkeeping required by conditions 20 and 21 of this permit. However, a summary report of this data is acceptable provided there is sufficient information to enable the Technical Secretary to evaluate compliance.

This report must be certified by a responsible official consistent with Rule 1200-3-9-.02(11)(d)4 of the Tennessee Air Pollution Control Regulations. The report shall be submitted to The Technical Secretary at the following address:

The Technical Secretary
Division of Air Pollution Control
ATTN: East Tennessee Permit Program
9th Floor, L & C Annex
401 Church Street
Nashville, Tennessee 37243-1531

(end of conditions)

The permit application gives the location of this source as 36°5'43"Latitude and 84°32'56" Longitude.

This amendment is to extend the expiration date per the request dated November 23, 2009. The permit was modified to reflect that source start-up is September 9, 2009.

