

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

NOV 21 2005



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

Date Issued: May 25, 2004

Permit Number:
957140P

Date Amended: NOV 07 2005

[AMENDMENT]

Date Expires: October 31, 2006

Issued To:
Heraeus Metal Processing

Installation Address:
Rt. 62 E. Knoxville Highway
Wartburg

Installation Description:

~~Natural Gas Fired Reverberatory Furnace~~
~~1.5 MMBtu/hr Heat Input Capacity, Baghouse Control~~

Emission Source Reference No.
65-0049-06

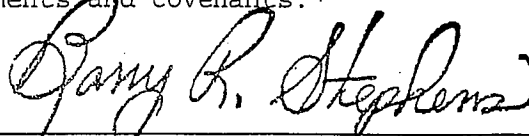
Natural Gas-Fired Crucible Furnace,
1.0 MMBtu/hr Heat Input Capacity,
W04 ~~Four~~ Induction Furnaces,
Baghouse Control

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 is dated February 17, 2004, and is signed by Mark Degnan, General Manager, for the permitted facility. Per the letter from the permittee dated March 7, 2005, the Responsible Official for this facility is J. P. Rosso, Acting Vice President, Tennessee Operations. If this person terminates employment or is reassigned different duties such that they are 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 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 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 Divisions.

NON-TRANSFERABLE

POST AT INSTALLATION ADDRESS

2. The permittee has elected to opt-out of being issued a major source operating permit pursuant to Division Rule 1200-3-9-.02(11)(a). The permittee would be considered a major source because their "potential to emit" values for particulate matter and volatile organic compounds (VOC) were greater than 100 tons per year at the time of application. The permittee has agreed to be subject to limitations in order to be below the major source applicability thresholds for particulate matter and volatile organic compounds of 100 tons per year each.
3. Any non-compliance with any condition(s) of this permit set to restrain the "potential to emit" below the applicability thresholds of 1200-3-9-.02(11) of the Tennessee Air Pollution Control Regulations shall be reported in writing to the Technical Secretary within three (3) working days of such discovery. This notification, at a minimum, shall include the identification of the source, identification of the permit condition(s) violated, and details of the violation.
4. A report stating the compliance status of this facility with Condition 9 of this permit shall be submitted by March 31 of every year, beginning in the year 2005. This report shall cover the preceding calendar year and shall include the records required by Conditions 8 and 14. The report shall be submitted to the Knoxville Environmental Field Office at the following address:

Knoxville Environmental Field Office
Division of Air Pollution Control
2700 Middlebrook Pike
Knoxville, TN 37921
5. The total stated heat input capacity for this source is ~~2.5~~^{1.0} MMBtu/hr. The Technical Secretary may require the permittee to prove compliance with this rate.
6. ~~Only natural gas shall be used as fuel for this source.~~ *Electrically powered*
7. The total raw material input for this source shall not exceed 9,001 tons during any period of twelve consecutive months. Compliance with this condition shall be assured by complying with the recordkeeping requirements of Condition 8.
8. A log of the material input rate for each actual calendar month, in a form that readily shows compliance with Condition 7, must be maintained at the source location and kept available for inspection by the Technical Secretary or his representative (the permittee may keep separate logs ~~for the reverberatory furnaces and~~ for the stationary refining furnaces). All data, including all required calculations, must be entered in the log no later than 30 days from the end of the month for which the data is required. This log must be retained for a period of not less than five (5) years.
9. Particulate matter (as TSP) emitted from this source shall not exceed 0.02 grains per dry standard cubic foot of stack gases (2.0 pounds per hour).

This emission limitation is established pursuant to Rule 1200-3-9-.02(11)(a) of the Tennessee Air Pollution Control Regulations and the information contained in the agreement letter dated March 10, 2004, from the permittee. The permittee has requested this limit in order to avoid Title V status.
10. Sulfur dioxide (SO₂) emitted from this source shall not exceed 0.1 lb/hr on a daily average basis.
11. Nitrogen oxides (NO_x) emitted from this source shall not exceed 9.2 tons during any period of twelve consecutive months.
12. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity as determined by EPA Method 9, as published in 40 CFR 60, Appendix A. (six-minute average).

(conditions continued on next page)

13. 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.
14. For each baghouse used by this source, the permittee shall demonstrate compliance with Condition 9 as follows:
- a) The permittee shall maintain the approved minimum pressure drop across each baghouse, as indicated below:

Baghouse	Minimum Pressure Drop (Inches of H ₂ O)
Reverb Furnace	2.3
Stationary Refining Furnaces	1.2

- b) The permittee shall record a minimum of one pressure drop reading per day in a handwritten 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.
- c) If the pressure drop reading falls below the minimum value specified above, the operator shall inspect the baghouse and initiate corrective actions to bring the pressure drop to above the minimum value.
- d) 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.
- e) This log 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.
15. Routine maintenance, as required to maintain specified emission limits, shall be performed on the air pollution control device(s). 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.
16. Upon the malfunction/failure of any emission control device(s) serving this source, the operation of the process(es) served by the device(s) shall be regulated by Chapter 1200-3-20 of the Tennessee Air Pollution Control Regulations.
17. This permit shall serve as a temporary operating permit from initial start-up to the receipt of a Conditional Major operating permit, provided that the conditions of this permit and any applicable emission standards are met.

(end of conditions)

The permit application gives the location of this source as 36.04° Latitude and 84.44° Longitude. This permit was amended to indicate that two separate baghouses were used by the emission source, in accordance with permittee request dated August 9, 2005.

The requirements to conduct initial source testing, to certify the startup date of this source, and to apply for a Conditional Major operating permit were included in the first issuance of this permit and have been completed by the permittee. These requirements have been removed from this amendment.