



STATE OF TENNESSEE  
**DEPARTMENT OF ENVIRONMENT AND CONSERVATION**

DIVISION OF AIR POLLUTION CONTROL

9th Floor, L & C Annex

401 Church Street

Nashville, Tennessee 37243-1531

May 25, 2007

Mr. Steven King  
Environmental Specialist  
Gerdau Ameristeel  
P O Box 3670  
801 Gerdau Ameristeel Road  
Jackson, TN 38303-3670

Reference Number: 57-0189-01-S4

Dear Mr. King:

The Tennessee Division of Air Pollution Control has received the compliance test report for the Electric Arc Furnace located at the Gerdau Ameristeel facility in Jackson, Tennessee. Ambient Air Services, Inc. performed this testing during June 28 – 29, 2006 in accordance with Condition (14) of Construction Permit No. 955863P and 40 CFR 60, Subpart AA – Standards of Performance for Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974, and On or Before August 17, 1983.

The Division's Compliance Validation Program has reviewed the source test report. Based on this review, the Division considers the report to be technically correct and acceptable for a compliance demonstration.

The purpose of this testing was to determine the amount of particulate matter (PM), lead (Pb), carbon monoxide (CO), oxides of nitrogen (NOx), sulfur dioxide (SO2), and visible emissions (VEEs) from the two baghouses that control waste gas emissions from the electric arc furnace and the general melt shop operations. Because of the design, flow velocity measurements were performed in the duct leading to each baghouse.

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The following tables provide a summary of the emissions testing and the visible emissions evaluations:

**Electric Arc Furnace  
 Baghouses 1 and 2**

Parameter	Actual Emissions	Allowable Emission
<b>Particulate Matter</b>		
gr/dscf	0.0013*	0.0041
lbs/hr	9.70	40.76
<b>Lead</b>		
lbs/hr	0.1	1.0
<b>Carbon Monoxide</b>		
lbs/hr	233	945
<b>Oxides of Nitrogen</b>		
lbs/hr	36.5	72.9
<b>Sulfur Dioxide</b>		
lbs/hr	17.5	40.5

\* flow weighted average of the two baghouses

**Visible Emission Evaluations**

Source	VEE Actual	VEE Allowable
Electric Arc Furnace		
Baghouse 1 and 2, as %	0%	3%
<sup>1</sup> Meltshop Building, as %	0%	6% and 20%
Dust handling System, as %	0%	10%

<sup>1</sup>Meltshop visible limit is 6% during all periods except tapping and charging. A 20% limit is required during tapping and charging.

During the testing period, the electric-arc furnace had an average a production rate of 95.4 tons of steel during the particulate testing and 94.4 tons of steel per hour during the gaseous testing. These production rates are 71 and 70 per cent of the maximum permitted production rate of 135 tons per hour as set forth in Condition 3. of the above listed construction permit. While these production rates are low compared to the maximum permitted production rate for the source, they approximate the normal production rates occurring during the time frame of the testing. Thus, the operational of the electric arc furnace was considered as being acceptable for a demonstration of compliance. The Division understands that this testing will be repeated when all construction/modification activities are complete and the electric arc furnace is operating at or near its permitted capacity pursuant to both the cover letter for the protocol for this testing dated April 10, 2006 and the construction permit extension request dated September 25, 2006.

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40 CFR 60, Subpart AA requires monitoring of the operation during the most recent compliance test. For this testing, the baghouse fan motor amperes were recorded during the testing and the data recorded during the meltshop visible emissions was utilized to provide the fan amperage operating range for each baghouse with the damper position also being recorded. The following table provides the results of this monitoring. These values will establish the baseline operation of the control equipment that will be used during furnace operation (40 CFR 60.274, Monitoring of Operations). As established in 40 CFR 60.276, Recordkeeping and Reporting Requirements, when the operation of the control equipment exceeds  $\pm 15\%$  of these established values, the furnace operation may be considered unacceptable.

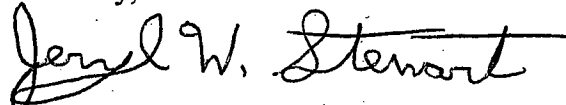
**Control Device Operating Parameters**

Source	Minimum	Maximum	Damper Position
Baghouse No. 1, amperes	197	276	100% open
Baghouse No. 2, amperes	368	579	variable

With the acceptance of this source emissions testing, the Division agrees that the company has fulfilled the testing requirements set forth in Condition 14. of Construction Permit No. 955863P.

Should you have any questions concerning the matters addressed by this letter, please contact Mr. Bryan Parker at (615) 532-0554.

Sincerely,



Jeryl W. Stewart  
Compliance Validation Program  
Division of Air Pollution Control

c: Jackson - EFO