

Note: This is a reference cited in AP 42, *Compilation of Air Pollutant Emission Factors, Volume I Stationary Point and Area Sources*. AP42 is located on the EPA web site at [www.epa.gov/ttn/chief/ap42/](http://www.epa.gov/ttn/chief/ap42/)

The file name refers to the reference number, the AP42 chapter and section. The file name "ref02\_c01s02.pdf" would mean the reference is from AP42 chapter 1 section 2. The reference may be from a previous version of the section and no longer cited. The primary source should always be checked.

<b>AP32 Section:</b>	<b>12.5.1</b>
<b>Background Chapter</b>	<b>3</b>
<b>Reference:</b>	<b>17</b>
<b>Title:</b>	<b>Source Sampling for Particulate, HCl, CO and Visual Emissions, Baghouse, Acid Regeneration Unit, and Pickle Line. Nucor Steel, Crawfordsville, IN. October 8-9 and 11, 1996.</b>

## DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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INDIANAPOLIS

OFFICE MEMORANDUM

Date: November 27, 1996

To: Phil Perry

Thru: Ed Surla *ES*From: Stephen L. Friend *SLF*

Subject: Nucor Steel  
 Rural Route #2 ,Box 311  
 Crawfordsville, IN.  
 Source ID No. 107 00038

The subject company has submitted a report concerning particulate sampling of the Pickle Line and Acid Regeneration Line. Sampling of the Electric Arc Furnace Baghouse for CO was also conducted. The tests were conducted on October 8,9,11, 1996 by Ramcon Environmental Corporation. The purpose of the testing was to fulfill the obligation of Cause No. A-1635. I have reviewed this report and found the sampling procedures used and results to be acceptable to this office. A copy of this report is filed in the Compliance Data Section. The following is a summary of the test results:

Pickle Line-Particulate	
Maximum Permitted Rate:	150 tons/hr
Average Rate During Test:	135 tons/hr
Average Measured Emissions:	.158 lb/hr
Allowable Emissions:	0.8 lb/hr
HCL Emissions:	.27 lb/hr
Highest 6-Minute Opacity:	0%
Average Opacity:	0%

Status: IN COMPLIANCE

Acid Regeneration-Particulate	
Maximum Permitted Rate:	7.3 MMBtu/hr
Average Rate During Test:	6.7 MMBtu/hr
Average Measured Emissions:	.550 lb/hr
Allowable Emissions:	2 lb/hr
HCL Emissions:	.89 lb/hr
Highest 6-Minute Opacity:	0%
Average Opacity:	0%

Status: IN COMPLIANCE

Nucor Steel  
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Electric Arc Furnace Baghouse  
Maximum Permitted Rate: 260 tons/hr  
CO  
Average Rate During Test: 238 tons/hr  
Average Measured Emissions CO: 210 lbs/hr  
Allowable Emissions CO: 476 lbs/hr

Status: IN COMPLIANCE

cc:S. Friend  
W. Stanfield  
D. McIver General Files-Montgomery County

# RAMCON

Environmental Corporation

Regional Offices:  
Philadelphia, Pennsylvania  
Houston, Texas

RECEIVED

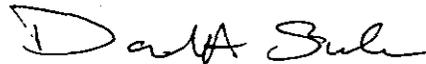
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STATE OF INDIANA  
DEPARTMENT OF ENVIRONMENT  
OFFICE OF AIR QUALITY

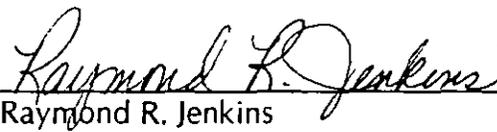
Source Sampling for Particulate, HCl,  
CO and Visual Emissions

Baghouse, Acid Regeneration Unit, and Pickle Line

NUCOR STEEL  
CRAWFORDSVILLE, INDIANA  
October 8-9 and 11, 1996



David A Sulc, Environmental Engineer  
Nucor Steel



Raymond R. Jenkins  
Vice President-Operations  
RAMCON Environmental Corporation

## II. TEST RESULTS

The test results are summarized in Tables A, B and C below. Table A reflects the results of the CO emissions testing conducted on the baghouse. These results are reported in terms of concentration, parts per million (ppm), and emission, pounds per hour (lb/hr) and pounds per ton (lb/ton), values for each test run. Tables B and C summarize the particulate and HCl results for the acid regeneration unit and the pickle line, respectively. The results are tabulated in concentration values of grains per dry standard cubic foot (gr/dscf) and in emission values of pounds per hour (lb/hr).

**Table A – Baghouse  
CO Test Results  
October 8, 1996**

Run	Time	O <sub>2</sub> , %	CO <sub>2</sub> , %	CO		
				ppm	lb/hr	lb/ton
1	09:52 - 10:52	19.8	1.5	72.72	243.14	1.02
2	14:15 - 15:15	19.9	1.2	58.05	183.28	0.77
3	15:36 - 16:51	20.0	1.3	66.18	211.52	0.89
<b>Average:</b>		19.9	1.3	65.65	212.65	0.89