AP32 Section:	12.5.1
Background Chapter	3
Reference:	8
Title:	Emissions Test Report, Particulate and Carbon Monoxide, for Harrison Steel Castings Company ARC Furnace Baghouse Stack, Attica, IN. September 24, 1992. ATEC Project No. 52-10-92-00022.

EMISSIONS TEST REPORT
PARTICULATE and CARBON MONOXIDE
EPA METHODS 5,9 AND 10
for
HARRISON STEEL CASTINGS COMPANY
ARC FURNACE BAGHOUSE STACK
ATTICA, INDIANA
SEPTEMBER 24, 1992
ATEC PROJECT NO. 52-10-92-00022

Prepared for
Mr. Peter Bodine
Harrison Steel Castings Company
900 Mound Street
Attica, Indiana 47918

ATEC

EMISSIONS TEST
EPA Method 5,9 and 10
Particulate, Visible Emissions, and Carbon Monoxide Emission Rates
Performed for
Harrison Steel Castings Company
July 30 & 31, 1992

1.0 INTRODUCTION

This report presents the test results of the testing conducted at Harrison Steel Castings Company's Arc Furnace Baghouse. The main purpose of this testing program was to determine particulate and carbon monoxide emission rates to meet operating permit limitations set forth by the State of Indiana Department of Environmental Management (IDEM). All testing was performed during September 24, 1992.

For this test program, the following specific requirements had to be met:

1. all testing equipment calibrated prior to and following the test program;
2. three consecutive particulate and carbon monoxide test repetitions performed at the Arc Furnace Baghouse Stack, with the facility operating at normal process conditions;
3. a total sampling time of approximately 180 minutes minimum per test run during the particulate testing;

4. all sampling and analysis performed in accordance with current EPA test methodologies and analytical procedures;

5. particulate emission rates shall comply with IDEM Rule 326 IAC 6-3;

6. visible emissions shall be limited to 40% over a six minute average, pursuant to IDEM Rule 326 IAC 6-3;

7. carbon monoxide emission rates shall be limited to 2.28 pounds per ton of steel charged.

All testing by ATEC was observed and/or performed by the following personnel:

Mr. Peter Bodine - Engineer, Harrison Steel Castings Company;

Mr. Michael Dicen - Office of Air Management, IDEM;

William C. James, Air Quality Test Engineer, ATEC Associates, Inc.;

Joseph Khalid, Air Quality Technician, ATEC Associates, Inc;

Jeff Cunningham, Air Quality Technician, ATEC Associates, Inc.

2.0 SUMMARY OF RESULTS

Averaged particulate (EPA Methods 1-5), and carbon monoxide emissions (EPA Method 10) are summarized below:

Particulate Emissions

Run#	gr/dscf	lb/hr	lb/ton steel cast
1	0.00284	1.46	0.178
2	0.00268	1.30	0.168
3	0.00147	0.72	0.095
AVG	**0.00233**	**1.16**	**0.147**

Carbon Monoxide Emissions

Run#	ppm	lb/hr	lb/ton steel cast
1	49	12.78	1.156
2	7	1.73	0.223
3	67	16.67	2.205
AVG	**41**	**10.39**	**1.327**

Visual Emissions averaged 0 percent opacity over three runs. No high or low spikes of greater than 0 percent were noted. Data sheets for each EPA Method 9 test are included in Appendix A of this document. A complete list of test parameters for the particulate and

carbon monoxide testing are located in Table #1. Strip chart recordings for Method 10 as well as field data sheets for Methods 1-5 are located in Appendix A.

Particulate testing was performed using an Anderson Stacksampler LCD metering system and conforms with all specifications required by EPA Methods 1-5. Carbon monoxide emissions were recored on a Yokagowa duel pen strip chart recorder and were monitored with a Thermo Environmental Instruments Model 48 GFC Ambient CO Analyzer. Specifications for this instrumentation are located in Appendix D of this Document.

Deviations from standard test methodology included a truncated test time from the original three hours to approximately 2.4 hours due to process restrictions. This problem was encountered only on the particulate testing. Other deviations included only a 1 hour test run for EPA Method 9 visual emissions readings. Truncation of visual emissions readings was approved by the IDEM administrator observing the testing. No other deviations from EPA methodology or process parameters was noted.

ATEC ENVIRONMENTAL CONSULTANTS
2646 Highway Avenue, Highland, Indiana 46322 (219)972-5252

EPA METHOD 5
PARTICULATE EMISSIONS

TABLE 1

CLIENT: Harrison Steel Castings
SOURCE TESTED: Baghouse Stack
JOB NO.: 52-10-00022
DATA INPUT BY: WCJ

INPUT DATA

Run Number	1	2	3	AVERAGE
Date	9/24/92	09/24/92	09/24/92	N/A
Time: Start-Stop	0813-1126	1221-1451	1550-1832	N/A
Sampling Time, Minutes	132	140	143	N/A
Source Condition	Normal	Normal	Normal	N/A
Stack Area, Square Feet	19.47	19.47	19.47	N/A
Pitot Tube Correction Factor, Unitless	0.84	0.84	0.84	N/A
Meter Correction Factor, Unitless	0.9823	0.9823	0.9823	N/A
Nozzle Diameter, Inches	0.188	0.188	0.188	N/A
Barometric Pressure, Inches of Mercury	29.66	29.66	29.66	N/A
Static Pressure, Inches of Water	-5.00	-5.00	-5.00	-5.00
Stack Pressure, Inches of Mercury	29.29	29.29	29.29	29.29
Meter Volume, Cubic Feet	82.395	83.782	87.685	84.614
Meter Temperature, Degrees F	62.1	77.2	80.2	73.2
Meter Orifice Press., Inches of Water	1.28	1.12	1.15	1.19
Volume Condensate Collected, Milliliters	49.8	29.8	40.1	39.8
CO2 Concentration, Percent	0.2	0.1	0.2	0.2
O2 Concentration, Percent	21.0	21.0	20.9	21.0
Avg. Square Root of Pitot, In. H2O	0.944	0.894	0.905	0.914
Stack Temperature, Degrees F	68.0	78.6	79.4	75.3
Particulate Collected, Grams	0.015	0.014	0.008	0.0123

CALCULATED DATA

Standard Meter Volume, Cubic Feet	81.372	80.361	83.657	81.797
Standard Water Volume, Cubic Feet	2.344	1.393	1.888	1.875
Moisture Fraction, Unitless	0.028	0.017	0.022	0.022
Molecular Wt. of Stack Gas Lb/Lb-Mole	28.568	28.671	28.628	28.622
Average Stack Gas Velocity, Ft./sec.	53.8	51.4	52.1	52.4
Stack Gas Flow, ACFM	62879	60035	60898	61270
Stack Gas Flow, DSCFM	59812	58811	57048	57824
Isokinetic Sampling Rate, Percent	104.12	102.43	103.59	103.38
Particulate Concentration, GR/DSCF	0.00284	0.00268	0.00147	0.00233
Particulate Emission Rate, Lb/hr	1.46	1.30	0.72	1.16
Particulate Emission Rate, Lb/ton	0.178	0.168	0.095	0.15
Carbon Monoxide Concentration, ppm	49	7	67	41.00
Carbon Monoxide Emission Rate, Lb/hr	12.78	1.73	16.67	10.39
Carbon Monoxide Emission Rate, Lb/ton	1.558	0.223	2.205	1.329

ATEC ENVIRONMENTAL CONSULTANTS
2546 Highway Avenue, Highland, Indiana 46322 (219)972-5252

EPA METHOD 5
PARTICULATE EMISSIONS

TABLE 1

CLIENT: Harrison Steel Castings — JOB NO.: 52-10-00022

SOURCE TESTED: Baghouse Stack — DATA INPUT BY: WCJ

INPUT DATA

Run Number	1	2	3	AVERAGE
Date	9/24/92	09/24/92	09/24/92	N/A
Time: Start-Stop	0813-1126	1221-1451	1550-1832	N/A
Sampling Time, Minutes	132	140	143	N/A
Source Condition	Normal	Normal	Normal	N/A
Stack Area, Square Feet	19.47	19.47	19.47	N/A
Pitot Tube Correction Factor, Unitless	0.84	0.84	0.84	N/A
Meter Correction Factor, Unitless	0.9823	0.9823	0.9823	N/A
Nozzle Diameter, Inches	0.188	0.188	0.188	N/A
Barometric Pressure, Inches of Mercury	29.68	29.68	29.68	N/A
Static Pressure, Inches of Water	-5.00	-5.00	-5.00	-5.00
Stack Pressure, Inches of Mercury	29.29	29.29	29.29	29.29
Meter Volume, Cubic Feet	82.395	83.782	87.685	84.614
Meter Temperature, Degrees F	62.1	77.2	80.2	73.2
Meter Orifice Press., Inches of Water	1.28	1.12	1.15	1.19
Volume Condensate Collected, Milliliters	49.8	29.8	40.1	39.8
CO2 Concentration, Percent	0.2	0.1	0.2	0.2
O2 Concentration, Percent	21.0	21.0	20.9	21.0
Avg. Square Root of Pitot, In. H2O	0.944	0.894	0.905	0.914
Stack Temperature, Degrees F	68.0	78.6	79.4	75.3
Particulate Collected, Grams	0.015	0.014	0.008	0.0123

CALCULATED DATA

Standard Meter Volume, Cubic Feet	81.372	80.361	83.857	81.797
Standard Water Volume, Cubic Feet	2.344	1.393	1.888	1.875
Moisture Fraction, Unitless	0.028	0.017	0.022	0.022
Molecular Wt. of Stack Gas Lb/Lb-Mole	28.568	28.671	28.628	28.622
Average Stack Gas Velocity, Ft./sec.	53.8	51.4	52.1	52.4
Stack Gas Flow, ACFM	62879	60035	60898	61270
Stack Gas Flow, DSCFM	59812	58811	57048	57824
Isokinetic Sampling Rate, Percent	104.12	102.43	103.59	103.38
Particulate Concentration, GR/DSCF	*0.00284*	*0.00268*	*0.00147*	*0.00233*
Particulate Emission Rate, Lb/hr	*1.46*	*1.30*	*0.72*	*1.16*
Particulate Emission Rate, Lb/ton	*0.178*	*0.168*	*0.095*	*0.15*
Carbon Monoxide Concentration, ppm	*49*	*7*	*67*	*41.00*
Carbon Monoxide Emission Rate, Lb/hr	*12.78*	*1.73*	*16.67*	*10.39*
Carbon Monoxide Emission Rate, Lb/ton	*1.158*	*0.223*	*2.205*	*1.19*

3.0 DESCRIPTION OF FACILITY

Harrison Steel Castings Company's Arc Furnace Baghouse consists of a five chamber baghouse divided into two sides to service two separate electric arc furnaces.

Fugitive emissions from the top of each arc furnace are drawn off and conveyed to the baghouse via an induced draft fan. Emissions then enter a primary knockout chamber to remove any large cinders or other heavy particulate matter from the gas stream. The treated gas stream emissions then move to the main body of the baghouse where finer particulates are collected. The filtered gas then exits through the stack, which is common for each side of the baghouse.

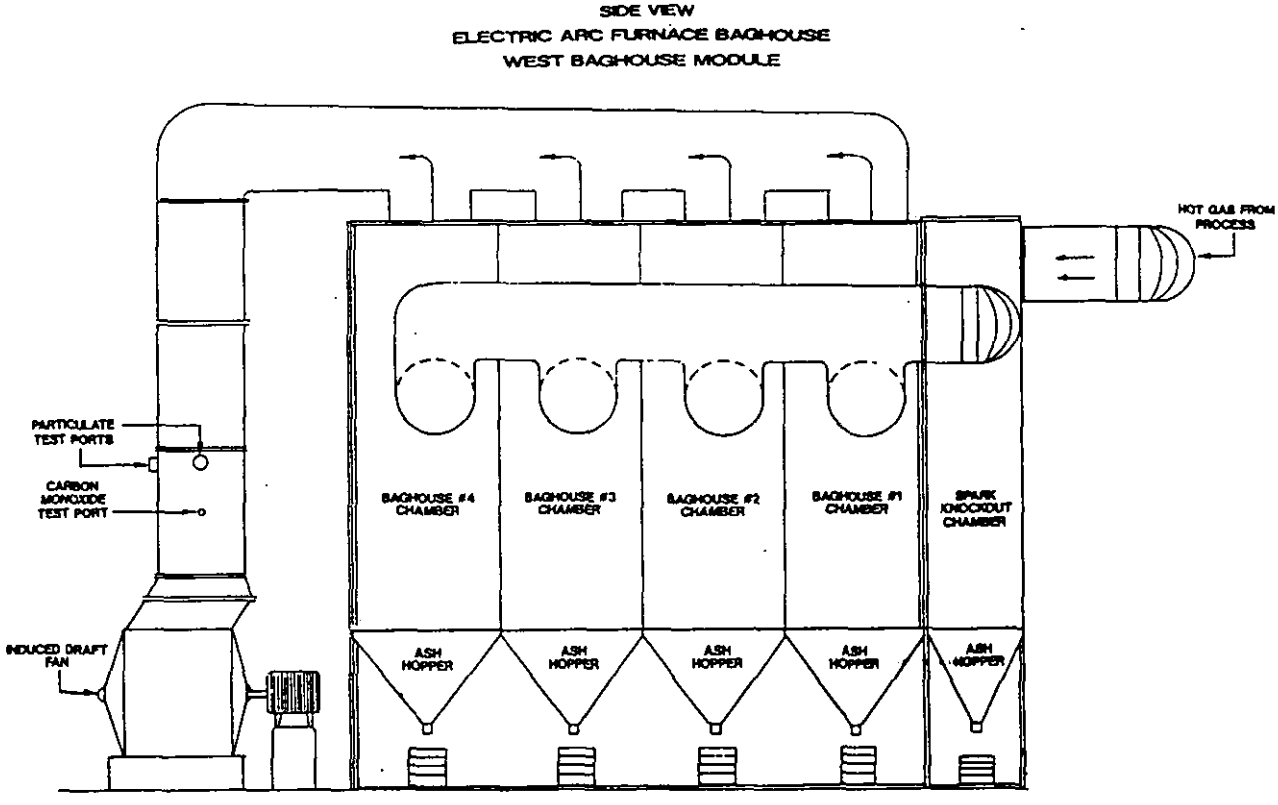

Figure 1

A schematic of the Arc Furnace Baghouse is shown

4.0 SAMPLING PROCEDURES

ATEC Associates, Inc., uses all current EPA accepted methodologies in it's Air Quality program as listed in The United States Code of Federal Regulations (CFR) 40, Parts 53 through 60, Appendix A. For this test program, the following specific methodologies were utilized:

EPA Method 1 - Sample and Velocity Traverses for Stationary Sources;

EPA Method 2 - Determination of Stack Gas Velocity and Volumetric Flow Rate;

EPA Method 3 - Gas Analysis for the Determination of Dry Molecular Weight;

EPA Method 4 - Determination of Moisture Content in Stack Gases; and

EPA Method 5 - Determination of Particulate Matter from Stationary Sources;

EPA Method 9 - Visual Determination of the Opacity of Emissions from Stationary Sources; and

EPA Method 10 - Determination of Carbon Monoxide Emissions from Stationary Sources.

A complete listing of each method is included in Appendix E of this document for reference purposes.

5.0 ANALYTICAL PROCEDURES

ATEC Associates, Inc., utilizes all current analytical procedures outlined in the following reference methods:

EPA Method 1 - Sample and Velocity Traverses for Stationary Sources;

EPA Method 2 - Determination of Stack Gas Velocity and Volumetric Flow Rate;

EPA Method 3 - Gas Analysis for the Determination of Dry Molecular Weight;

EPA Method 4 - Determination of Moisture Content in Stack Gases;

EPA Method 5 - Determination of Particulate Matter from Stationary Sources;

EPA Method 9 - Visual Determination of the Opacity of Emissions from Stationary Sources; and

EPA Method 10 - Determination of Carbon Monoxide Emissions from Stationary Sources.

The complete listing of each analytical procedure used is included in Appendix E of this document for reference purposes.

PART 70 OPERATING PERMIT
OFFICE OF AIR QUALITY

Harrison Steel Castings Company
900 North Mound Street
Attica, Indiana 47918

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T045-6002-00002	
Issued by: Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date: Expiration Date:

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Compliance Determination Requirements

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D.8.16 Record Keeping Requirements

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary steel and ductile iron castings plant.

Responsible Official:	Executive Vice President
Source Address:	900 North Mound Street, Attica, Indiana 47918
Mailing Address:	P.O. Box 60, Attica, Indiana
SIC Code:	3325, 3321
County Location:	Fountain County
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD; Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

(1) The scrap and charge handling process, constructed in 1951, with a maximum capacity of 24.5 tons of steel per hour, with emissions uncontrolled exhausting through stacks S8 and S10.

(2) The melting process consisting of the following:

(a) One (1) electric arc furnace, identified as EAF2, constructed in 1951 with a maximum melt rate of 4.5 tons of steel or iron per hour with emissions controlled by one (1) baghouse, identified as DC4, exhausting through stack DC4.

(b) One (1) electric arc furnace, identified as EAF3, constructed prior to October 1974 with a maximum melt rate of 10 tons of steel or iron per hour with emissions controlled by one (1) baghouse, identified as DC5, exhausting through stack DC5.

(c) One (1) electric arc furnace, identified as EAF4, constructed in 1989 with a maximum melt rate of 10 tons of steel or iron per hour with emissions controlled by one (1) baghouse, identified as DC40, exhausting through stack DC40.

Note: Two (2) baghouses identified as DC38 and DC42 are used to control fugitive melt shop particulate emissions at the roof monitor.

(3) The pouring, cooling, and shakeout operations consisting of the following:

(a) One (1) pouring/casting operation, identified as POUR, constructed in or before 1951 with a maximum capacity of 20 tons of melted steel per hour and 183.68 tons of sand per hour with emissions uncontrolled.

(b) One (1) casting cooling operation, identified as POUR, constructed in or before 1951 with a maximum capacity of 20 tons of melted steel per hour and 183.68 tons of sand per hour with emissions uncontrolled.

(c) One (1) pouring/casting operation, identified as LDL, constructed in 1950, with a maximum capacity of 4.5 tons of melted steel per hour and 24.32 tons of sand per hour with emissions uncontrolled.

(d) One (1) casting cooling operation, identified as LDL, constructed in 1950, with a maximum capacity of 4.5 tons of melted steel per hour and 24.32 tons of sand per hour with emissions uncontrolled.

(e) One (1) shakeout system, identified as North Shakeout, constructed in 1958, with a maximum capacity of 2.29 tons of steel per hour and 8 tons of sand per hour with emissions controlled by two (2) baghouses, identified as DC2 and DC3.

(f) One (1) shakeout system, identified as South Shakeout, constructed in 1965, with a maximum capacity of 57.14 tons of steel per hour and 200 tons of sand per hour with emissions controlled by two (2) baghouses, identified as DC12 and DC9.

(4) One (1) magnesium treatment operation for producing ductile iron castings, identified as DCTLE, constructed in 1987, with a maximum capacity of 4.5 tons of steel per hour with emissions uncontrolled.

(5) The shot blasting operations consisting of the following;

(a) Two (2) twin table blast machines, identified as L3/4 - NTT and L3/4 - STT, both constructed in 1961 each with a maximum capacity of 25 tons of steel per hour with emissions from L3/4 - NTT controlled by baghouse DC16 and emissions from L3/4 - STT controlled by baghouse DC18.

(b) One (1) Nelle Belle shotblast machine, identified as Nelle, constructed in 1955 with a maximum capacity of 60 tons of steel per hour with emissions controlled by a baghouse, identified as DC7.

(c) One (1) Wheelabrator Frye shotblast machine, identified as #16 Monorail, constructed in 1976 with a maximum capacity of 25.7 tons of metal per hour with emissions controlled by a baghouse, identified as DC17.

(d) Two (2) room blast machines, identified as LN3-Rm and LN5-S Rm, constructed in 1962 and 1967, respectively, with a maximum capacity of 8 tons of steel per hour each with emissions from LN3-RM controlled by baghouse DC30 and emissions from LN5-S Rm controlled by baghouse DC28.

(e) One (1) room blast machine, identified as LN5-N, constructed in 1960 with a

maximum capacity of 10 tons of steel per hour with emissions controlled by a baghouse, identified as DC11.

(f) One (1) room blast machine, identified as LN2-N, constructed in 1981 with a maximum capacity of 13 tons of steel per hour with emissions controlled by a baghouse, identified as DC23.

(g) One (1) tumble blast machine, identified as LN1-TMBL, constructed in 1945 with a maximum capacity of 4.5 tons of steel per hour with emissions controlled by a baghouse, identified as DC10.

(h) One (1) twin table blast machine, identified as LN6-TT, constructed in 1959 with a maximum capacity of 25 tons of steel per hour with emissions controlled by a baghouse, identified as DC24.

(i) One (1) monorail blast machine, identified as #18 Monorail, constructed in 1980 with a maximum capacity of 11.4 tons of steel per hour with emissions controlled by a baghouse, identified as DC21.

(j) One (1) room blast machine, identified as LN2-S Rm, constructed in 1979 with a maximum capacity of 7 tons of steel per hour with emissions controlled by a baghouse, identified as DC33.

(k) One (1) chill room tumble blast machine, identified as Chill Tmbl, constructed July 1, 1977, with a maximum capacity of 11.4 tons of steel per hour with emissions controlled by a baghouse, identified as DC6.

(l) One (1) chill room cabinet blast machine, identified as Chill Cbnt, constructed in 1978 with a maximum capacity of 11.4 tons of steel per hour with emissions controlled by a baghouse, identified as DC6.

(6) One (1) sand handling system, identified as North Sand Handling System, constructed in 1988 and modified in 1994 with a maximum capacity of 8 tons of sand per hour with emissions controlled by a baghouse, identified as DC41.

(7) One (1) sand handling, identified as South Sand Handling System, constructed in 1967 and modified in 1988 with a maximum capacity of 200 tons of sand per hour with emissions controlled by four (4) baghouses, identified as DC20, DC35, DC36, and DC39.

(8) Core and mold making operations consisting of the following:

(a) One (1) Isocure core making machine equipped with a mixer, identified as Isocure, constructed in 1995 with a maximum capacity of 4.5 tons of sand per hour equipped with a scrubber to control TEA emissions, and with a one (1) ton new sand storage hopper and a seven (7) ton new sand storage hopper.

(b) One (1) Airset core making machine equipped with a mixer, identified as Pep Core, constructed in 1989 with a maximum capacity of 9 tons of sand per hour with emissions uncontrolled.

(c) One (1) Pepset mold making machine equipped with a mixer, constructed in 1994 with a maximum capacity of 45 tons of sand per hour with emissions uncontrolled.

(d) One (1) Oil core making machine, identified as Red CO_2, constructed in 1988 with a maximum capacity of 0.05 tons of sand per hour with emissions uncontrolled.

(e) One (1) Airset core making machine equipped with a mixer, identified as Zircon, constructed in 1992 with a maximum capacity of 9 tons of sand per hour with emissions uncontrolled.

(f) Five (5) Oil Sand core making benches, constructed in 1959, each with a maximum capacity of 0.4 tons of oil sand per hour or 0.6 tons of CO_2 sand per hour.

(g) Two (2) Shell core making machines, constructed in 1962 and 1973, each with a maximum capacity of 0.075 tons of sand per hour.

(h) One (1) Shell core making machine constructed in 1976, with a maximum capacity of 0.125 tons of sand per hour.

(i) One (1) Airset core making machine equipped with a mixer, constructed in 1976, with a maximum capacity of 16.5 tons of sand per hour.

(j) One (1) core wash process, constructed prior to 1977, with emissions uncontrolled and exhausting internally.

(9) One (1) natural gas-fired surface combustion heat treat furnace, identified as L7SC, constructed in 1997 with a maximum capacity of 24.5 million British thermal units per hour, with emissions uncontrolled.

(10) One (1) new Airset molding line rated at a maximum steel production rate of 15.73 tons of steel or iron per hour and 47.2 tons of sand per hour. The Airset molding line consists of the following processes/equipment:

(a) pouring operations with a maximum capacity of 15.73 tons of steel or ductile iron per hour and 47.2 tons of sand per hour, with emissions uncontrolled and exhausting through stacks S37through S42;

(b) castings cooling operations with a maximum capacity of 15.73 tons of steel or ductile iron per hour and 47.2 tons of sand per hour, with emissions uncontrolled and exhausting through stacks S37through S42;

(c) shakeout operations with a maximum capacity of 15.73 tons of steel or ductile iron per hour and 47.2 tons of sand per hour, with emissions controlled by two baghouses, identified as DC43 and DC44, and exhausting to stacks DC43 and DC44;

(d) sand handling operations with a maximum capacity of 47.2 tons of sand per hour, with emissions controlled by a baghouse identified as DC46, and exhausting to stack DC46. The sand handling system consists of the following equipment:

(1) six sand storage silos, each controlled by a bin vent;
(2) four (4) sand heaters;
(3) covered pneumatic conveyors for transporting sand from silos to mixer;

(e) mechanical reclaim operations with a maximum capacity of 47.2 tons of sand per hour, with emissions controlled by a baghouse identified as DC45 and exhausting to stack DC45;

(f) one natural gas fired thermal reclaimer, with a maximum heat input capacity of 2.83 million Btu per hour, with a maximum capacity of 2.85 tons of sand per hour, with emissions controlled by a baghouse identified as DC46 and exhausting to stack DC46;

(g) phenolic urethane no-bake mold making operations with a maximum capacity of 47.2 tons of sand per hour. The mold making operation consists of the following equipment.

(1) one enclosed mixer for combining mold sand with resin, with VOC emissions controlled by the thermal sand reclaimer;
(2) strike off operations;
(3) rollover draw/strip operations;
(4) one natural gas fired preheat tunnel with a maximum heat input capacity of 0.8 million Btu per hour;
(5) mold wash operations with a maximum capacity of 230.69 pounds of mold wash per hour, which is equivalent to 11.34 gallons of mold wash per hour;
(6) one natural gas fired drying (curing) oven, with a maximum heat input capacity of 3.2 million Btu per hour; and
(7) one mold closer process which puts the two halves of the mold together.

Note: Each individual shakeout unit has a maximum design capacity of 10 tons of metal per hour; however, the pouring and cooling operations bottleneck the shakeout process, such that the total hourly rate at shakeout cannot exceed 15.73 tons of metal per hour.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

(a) Machining where an aqueous cutting coolant continuously floods the machining interface. [326 IAC 6-3-2]

(b) Furnaces used for melting metals other than beryllium with a brim full capacity of less than or equal to 450 cubic inches by volume.[326 IAC 6-3-2]

(c) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations. [326 IAC 6-3-2]

(1) Grinding machines each with a maximum capacity of 18.9 pounds per hour with emissions controlled by baghouses, identified as DC13, DC14, DC26, and DC37.

(2) One (1) pattern woodworking shop with emissions controlled by a roto-clone, identified as DC1.

(d) Flame cutting - natural gas and oxygen torch to remove gates, spurs, and rizers.[326 IAC 6-3-2]

(e) Flame wash - arc welding like torch to smooth castings after flame cutting.[326 IAC 6-3-2]

(f) One (1) paint booth for coating metal castings, constructed prior to 1977, utilizing air assisted airless spray type, with VOC emissions uncontrolled and overspray controlled by using a filter wall, with emissions exhausting to stack S154.[326 IAC 6-3-2]

Mold making operations consisting of the following:

(g) Four (4) green sand molding machines, identified as #20 Jolt, #8 Jolt, #13 Jolt, and #21 Jolt constructed in 1941, 1929, 1930, and 1996, respectively, each with a maximum capacity of 13 tons of sand per hour.[326 IAC 6-3-2]

(h) One (1) green sand molding machine, identified as Herm Jolt, constructed in 1977 with a maximum capacity of 26 tons of sand per hour with emissions uncontrolled.[326 IAC 6-3-2]

(i) Two (2) green sand molding machines, identified as #14 Jolt and #10 Jolt, constructed in 1935 and 1929, respectively, each with a maximum capacity of 8 tons of sand per hour with emissions uncontrolled.[326 IAC 6-3-2]

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

(a) It is a major source, as defined in 326 IAC 2-7-1(22); and

(b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-7-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

B.2 Permit Term [326 IAC 2-7-5(2)]

This permit is issued for a fixed term of five (5) years from the original date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

B.3 Enforceability [326 IAC 2-7-7]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.4 Termination of Right to Operate [326 IAC 2-7-10] [326 IAC 2-7-4(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).

B.5 Severability [326 IAC 2-7-5(5)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]

This permit does not convey any property rights of any sort or any exclusive privilege.

B.7 Duty to Supplement and Provide Information [326 IAC 2-7-4(b)] [326 IAC 2-7-5(6)(E)] [326 IAC 2-7-6(6)]

(a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit or, for information claimed to be confidential, the Permittee may furnish such records directly to the U. S. EPA along

with a claim of confidentiality. [326 IAC 2-7-5(6)(E)]

(c) The Permittee may include a claim of confidentiality in accordance with 326 IAC 17. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.8 Compliance with Permit Conditions [326 IAC 2-7-5(6)(A)] [326 IAC 2-7-5(6)(B)]

(a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for:

(1) Enforcement action;

(2) Permit termination, revocation and reissuance, or modification; or

(3) Denial of a permit renewal application.

(b) Noncompliance with any provisions of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act.

(c) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(d) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in condition B, Emergency Provisions.

B.9 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)(C)]

(a) To the extent specifically designated by this permit or required by an applicable requirement, compliance reports (including testing, monitoring, reporting, and record keeping requirements set forth in Sections D) prepared by the Permittee and submitted shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.

(c) A responsible official is defined at 326 IAC 2-7-1(34).

B.10 Annual Compliance Certification [326 IAC 2-7-6(5)]

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than July 1 of each year to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

(b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(c) The annual compliance certification report shall include the following:

(1) The appropriate identification of each term or condition of this permit that is the basis of the certification;

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and

(5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ, may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

B.11 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The PMP and the PMP extension notification do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation.

(d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

B.12 Emergency Provisions [326 IAC 2-7-16]

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-7-16.

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or
Telephone Number: 317-233-5674 (ask for Compliance Section)
Facsimile Number: 317-233-5967

(5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

(A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(6) The Permittee immediately took all reasonable steps to correct the emergency.

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

(e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4-(c)(10) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.

(g) Operations may continue during an emergency only if the following conditions are met:

(1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.