



SFSA CASTEEL REPORTER

Steel Founders' Society of America

a monthly publication
serving SFSA steel casting industry Members

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Casteel Commentary

The Casteel Commentary is on the need to welcome the new generation of leaders. Each plant needs to look around and identify young future leaders and get them into committees in SFSA. Each plant needs to identify key near retirement managers and technical staff and plan for their replacement. Each plant should consider sponsoring interns or using the SFSA intern program to aid their recruiting and selection process.

Mandatory Reporting of Greenhouses Gases to EPA for US plants

The US EPA has issued the final rule for mandatory reporting of certain greenhouse gases by certain commercial entities. It will be necessary for steel foundries to determine the applicability of this rule to their operation. For most steel foundries, a simple review will demonstrate that they are not covered by the rule.

In the Federal Register Vol 74. No. 209 October 30, 2009 II. General requirements of the rule, A. Summary of the General Requirements of the Final Rule, 1. Applicability pp. 56266-56267; five categories are delineated:

1. Defined Source Categories listed and defined from 40 CFR part 98 subparts C through JJ which has no source categories applying to steel foundry operations.
2. Defined Source Categories from 40 CFR part 98 subparts C through JJ that emit 25,000 metric tons a year and this list includes Iron and Steel Production.

Iron and steel production are subject to reporting requirements in III Reporting and Record Keeping, Q. Iron and Steel Production pp. 56309-56312. In the section on Source Category definition, the one that might apply to a steel foundry is EAF steelmaking not co-located with an integrated iron and steel manufacturing process. The requirement to submit a report applies to facilities detailed in 40 CFR 98.2. Q. Iron and Steel Production in this section again defines EAF steel making as a covered operation p., 56309. The covered emissions are CO₂ from the melting operation. However this is clarified in the definitions section 98.6 p. 56386. "Electric arc furnace steelmaking means the production of carbon, alloy, or specialty steels using an EAF. This definition excludes EAF's at steel foundries and EAF's used to produce nonferrous metals." (Bold added) So we would understand that steel foundry operations are not covered by this source category.

3. Facilities that meet three requirements, 1. not listed in 1 or 2 above, 2. has an aggregate maximum rated heat input capacity of the stationary fuel combustion units at the facility is 30 million BTU's/ hour, and 3. emits 25,000 metric tons of CO₂e or more per year from all stationary fuel combustion sources.

Large foundries may be required to report under this category. Each steel foundry needs to determine their maximum fuel burning from stationary sources (e.g. annealing furnaces, natural gas-fired makeup air units, ladle preheaters, etc) and if it is less than 30 million btu/hr, then print this email and staple a copy of the calculation to show that the rule does not apply.

If the plant exceeds the threshold then you need to calculate your maximum CO₂e based on fuel consumption. AFS will soon have a calculator on their website that can be used to determine emissions. If your annual fuel consumption on that calculator is well below the 25,000 metric tons of CO₂e then print this email and staple the calculation page to it and file it for reference.

4. Fuel Supplier does not apply to steel foundry operations

5. R&D activities are not required to report.

From AFS Metalcasting's 2009 Top OSHA Violations Released

Released October 12, 2009

The Occupational Health and Safety Administration (OSHA) has released the top ten list of the most frequently cited safety and health violations for the metalcasting industry for fiscal year 2009.

The most cited OSHA violations for both iron and steel metalcasting facilities were air contaminants, respiratory protection and lockout/tagout. The top three most-often-cited OSHA violations for aluminum metalcasting facilities were lack of respiratory protection, personal protective equipment and machine guarding. Violations of the lead standard, air contaminants and lack of respiratory program represented the top three OSHA violations for copper facilities. A complete list of the top ten most cited OSHA violations for all metalcasting facilities can be downloaded from the Casteel Reporter web page.

OSHA plans nearly 40,000 safety investigations annually, not to mention many unplanned investigations based on imminent hazards and employee complaints.

"Enforcement remains the foundation for reducing workplace injuries, illnesses and fatalities," said Jordan Barab, Acting OSHA Administrator. "Those investigations continue to be a principal enforcement tool for the agency."

Persons Available

A1238 is graduating May 2010 with a BS in Metallurgical Engineering and seeks a position in that field. Active with AFS and FEF. Involved with research involving dimensional tolerance measurement, metallographic testing, mechanical testing.

A1239 seeks an entry-level engineering position in the metalcasting industry. Graduating March 2010 with a BS in Engineering Technology-Mechanical and Manufacturing. Holds AS in Engineering Technology and Manufacturing Technology. Coursework emphasizing metalcasting, machining, quality CADD/CAM, mechanical and heat systems. Level 2 AutoCAD certification. Active with AMS, AFS, SME, AWS.

A1240 graduates May 2010 with a Masters in Applied Chemistry & Biochemistry, Molding Practices for Metal Casting, Process Quality Control, Instrumentation, Operations Management. Holds a BS in chemistry. Strong background in chemically bonded sands.

A1241 Graduates December 2009 with a degree in Manufacturing Engineering Technology and seeks a process engineering position. Experience with 6 Sigma, scrap reduction, improvement of flow through facility and on-time delivery. Supervisory and scheduling experience, NDT, process management.

Market News

Booking for September for all steel casting categories improved to match levels of a year ago. This is a modest and tentative sign of recovery. Bookings are running ahead of shipments which are another sign of improvement. Backlogs dropped to low levels as a contrary sign of continued weakness. Iron and steel castings reported in the Census report and the shipments of steel products both show measurable increases. After a low point in June and July, capital goods orders have increased as well. Orders for nondefense capital goods minus aircraft exceeded shipments for the first time since August 2008.

Political uncertainty and lack of credit availability are hampering a recovery. The slow rate of stimulus release has projects that would have proceeded waiting to be supplemented by stimulus. Commodity prices are high enough to justify new investments but growing inventories make those investments risky.

An updated SFSA Forecast for 2010 is online at <http://www.sfsa.org/meetings/annmtg09>.

Casteel Commentary

Our industry is in a generational transition. Five years ago, the majority of T&O attendees had been attending for at least a decade. Little new hiring and few retirements made the leadership of our industry stable. That has changed.

The T&O conference had most of the attendees that had been coming less than 5 years. The average age of attendees has dropped by more than a decade in three years by my guess. These new faces will be the leaders of tomorrow. It is critical that we find ways to integrate them into the industry and SFSA.

If your plant is to have a future, it is necessary to know these new leaders. SFSA has a successful future leaders group with more than 30 registrants but many members have no active participants. Many plants are still sending the same people and missing the training and networking that is especially valuable to younger workers. Many of these enthusiastic participants need to experience preparing and giving a T&O paper. This helps develop their skills and knowledge. Many oldsters are reluctant to meet and greet these unfamiliar faces but they are our future.

Most steel foundries are still understaffed in the junior ranks and will suffer as experienced worker retire without being able to train the next generation. I have a number of resumes from students looking for a job. I know the market is tough and we are not hiring. But if we are to steal the best applicants, it would be wise to interview and qualify these potential employees. Then as soon as we see a glimmer we may be able to hire them before our big OEM's can act.

Another underutilized program is the SFSA intern program. If you would like to sponsor an intern the information is available at <http://www.sfsa.org/foundation/sponsor.html>

Raymond Monroe

**STEEL FOUNDERS' SOCIETY OF AMERICA
BUSINESS REPORT**

SFSA Trend Cards (%-12 mos. Ago)	12 Mo Avg	3 Mo Avg	Sep	Aug
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Carbon & Low Alloy

Shipments	-26.6	-53.4	-46.8	-58.0
Bookings	-42.1	-34.7	-0.5	-52.7
Backlog (wks)	6.4	5.1	2.0	7.0

High Alloy

Shipments	-1.7	-58.1	-41.7	-61.6
Bookings	-16.9	-40.9	-0.6	-60.5
Backlog (wks)	5.4	4.0	2.0	5.0

**Department of Commerce
Census Data**

Iron & Steel Foundries (million \$)

Shipments	1,334.1	1,172.0	1,219	1,175
New Orders	1,255.4	1,165.7	1,221	1,200
Inventories	2,538.3	2,273.0	2,247	2,278

Nondefense Capital Goods (billion \$)

Shipments	59.0	56.3	56.6	55.4
New Orders	53.8	54.2	53.5	52.4
Inventories	141.3	134.9	132.5	134.9

**Nondefense Capital Goods
less Aircraft (billion \$)**

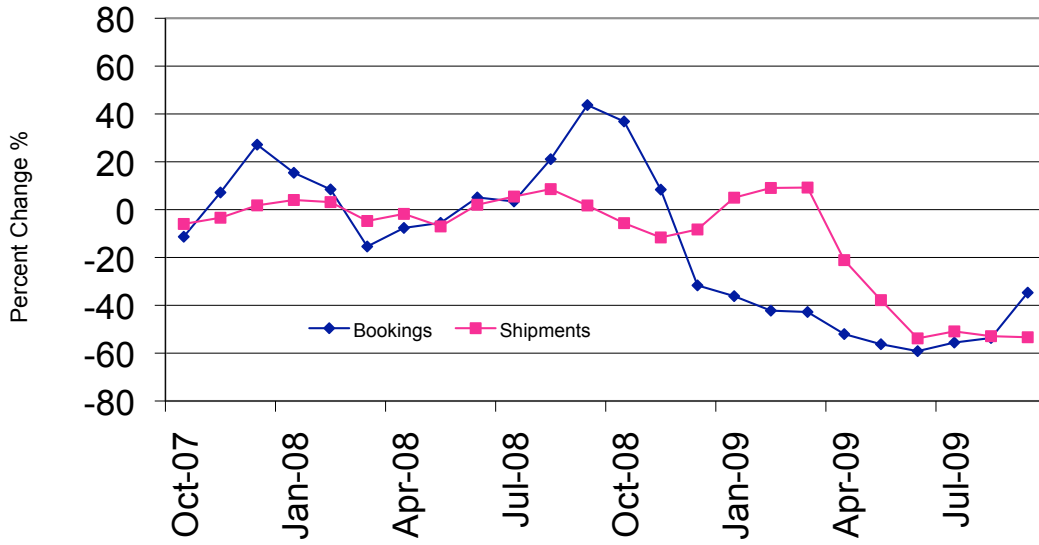
Shipments	55.4	52.2	51.7	51.9
New Orders	52.7	51.6	52.0	51.1
Inventories	104.7	98.5	97.8	98.5

Inventory/Orders		1.91	1.88	1.93
Inventory/Shipments		1.89	1.89	1.90
Orders/Shipments		0.99	1.01	0.98

American Iron and Steel Institute

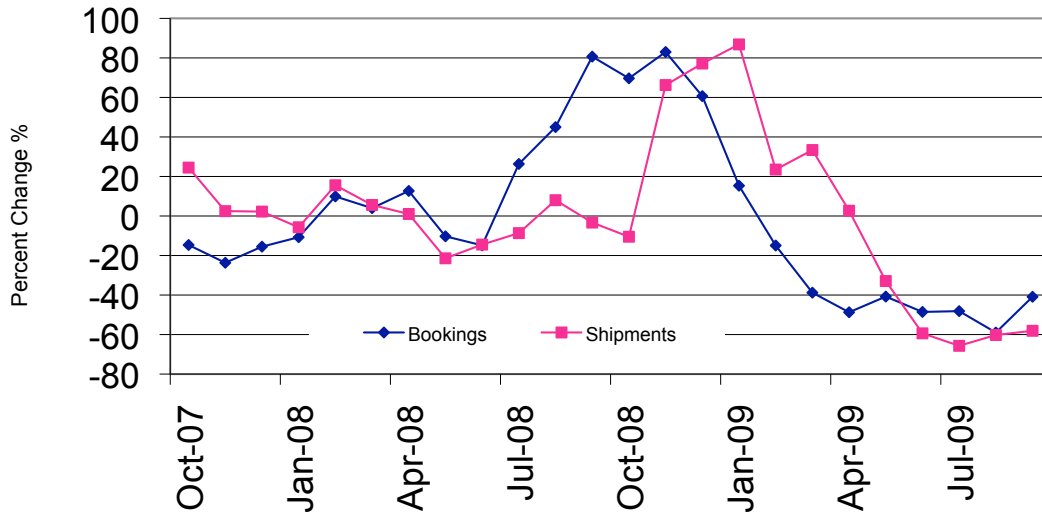
Raw Steel Shipments (million net tons)	5.0	5.5	5.8	5.6
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Carbon & Low Alloy Casting Market Trends



SFSA Postcards

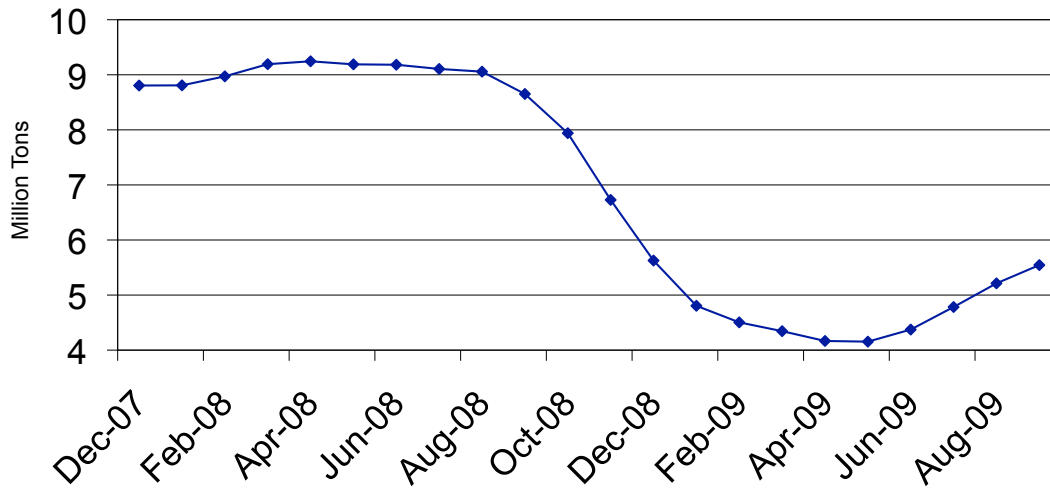
High Alloy Casting Market Trends



SFSA Postcards

Raw Steel Shipments

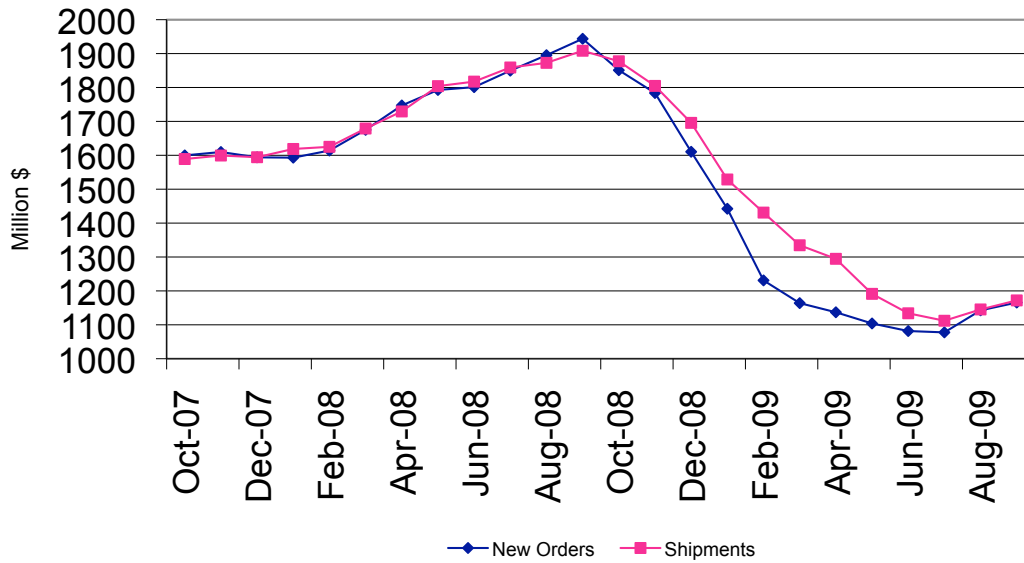
3 month average



AISI Data

Iron and Steel Castings

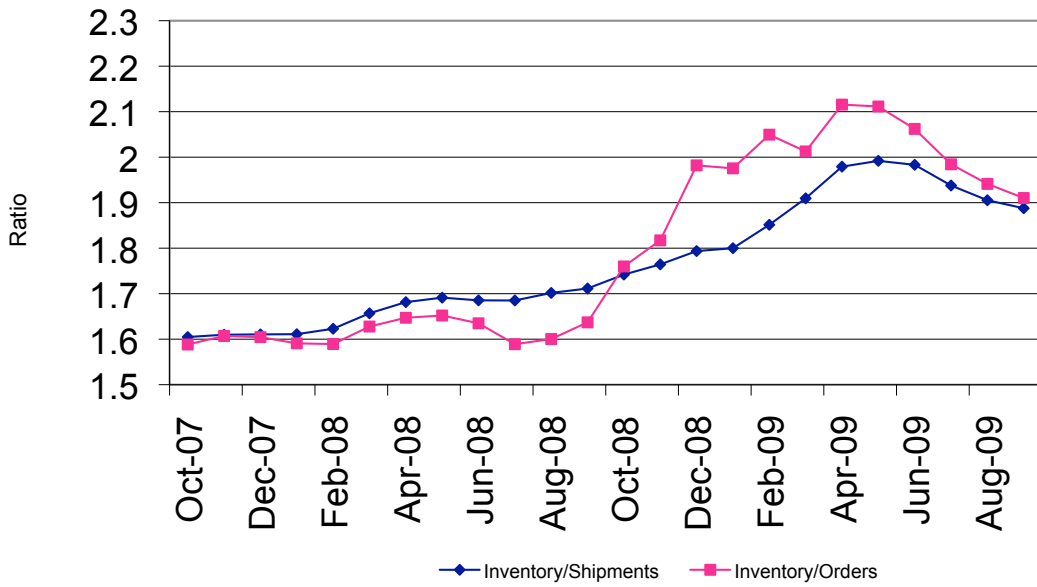
3 month average



SFSA

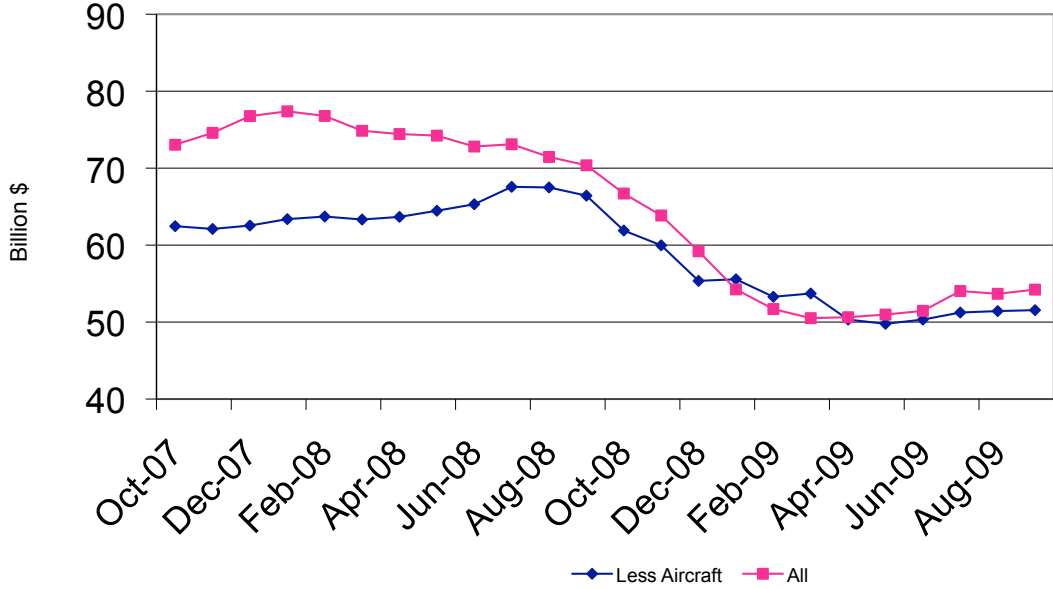
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Nondefense Capital Goods less Aircraft 3 month average



Department of Commerce

Nondefense Capital Goods New Orders 3 month average



Department of Commerce

**FOUNDRY TOP TEN (10) OSHA STANDARDS CITED BY FEDERAL OSHA
From PERIOD 01 OCTOBER 2008 through 30 SEPTEMBER 2009**

IRON FOUNDRIES (NAICS GROUP: 331511) / (SIC: 3321)

	<u>Standard</u>	<u>#Cited</u>	<u>#Inspections</u>	<u>\$Penalty</u>	<u>Description</u>
1.	1910.1000	23	11	\$ 9186	<u>Air Contaminants</u> (No testing, Overexposures to Silica, Metals etc.)
2.	1910.134	21	9	\$ 5989	<u>Respiratory Protection</u> (No written program, Not medically evaluated, Worn over beards, Not stored properly, maintained or cleaned)
3.	1910.147	16	8	\$ 17262	<u>Control of Hazardous Energy (LOTO)</u> (No written program, Improper isolating device, No annual inspection, Employees not trained, Machine not locked-out)
4.	1910.1200	16	8	\$ 7888	<u>Hazard Communication (HAZCOM)</u> (No written program, HAZCOM labeling missing, Training not provided)
5.	1910.146	14	4	\$ 18438	<u>Permit Required Confined Spaces</u> (Workplace not evaluated, Confined space signs missing, Contractors not notified)
6.	1910.305	13	8	\$ 10076	<u>Electrical- Wiring Methods</u> (Temporary wiring used longer then 90 days, Knockouts missing, Holes in circuit breaker panels, Misuse of flexible cords)
7.	1910.023	12	9	\$ 8347	<u>Guarding Floor and Wall Openings & Holes</u> (Hole in floor, Fall protection not provided, Not guarded)
8.	1910.303	11	7	\$ 6275	<u>Electrical- General</u> (Disconnects not labeled, Circuit breakers not Labeled, Electrical boxes blocked, Misuse of re-locatable power taps, High voltage rooms not labeled or locked)
9.	1910.179	10	4	\$ 935	<u>Overhead Cranes</u> (Rated load markings missing, No traveling warning device, Safety latch removed from hook, Daily inspections not being done)
10.	1910.212	10	9	\$ 12615	<u>Machine Guarding</u> (Chuck guards missing, Pulleys, V-belts not guarded, Machines not anchored, Point of operation guard not provided, Guards not on machine)

STEEL FOUNDRIES (NAICS GROUP: 331513) / (SIC: 3325)

	<u>Standard</u>	<u>#Cited</u>	<u>#Inspections</u>	<u>\$Penalty</u>	<u>Description</u>
1.	1910.1000	13	3	\$ 8350	<u>Air Contaminants</u> (No testing, Overexposures to Silica, Metals etc.)
2.	1910.147	9	5	\$ 3588	<u>Control of Hazardous Energy (LOTO)</u> (No written program, Improper isolating device, No annual inspection, Employees not trained, Machine not locked-out)
3.	1910.134	8	5	\$ 5300	<u>Respiratory Protection</u> (No written program, Not medically evaluated, Worn over beards, Not stored properly, maintained or cleaned)
4.	1910.212	8	7	\$ 8388	<u>Machine Guarding</u> (Chuck guards missing, Pulleys, V-belts not guarded, Machines not anchored, Point of operation guard not provided, Guards not on machine)
5.	1910.178	7	3	\$ 4500	<u>Powered Industrial Trucks</u> (Forklift operating with defects, Operator not wearing seat-belt, No pre inspection, Wheels not chocked when loading trailer, Name-plates & markings not legible, Operators not trained)
6.	1910.219	7	2	\$ 6375	<u>Guarding- Mechanical Power-Transmissions</u> (Exposed shafting, Pulleys / v-belts not enclosed, Gears, Sprockets, Chains not guarded, Motor-pump coupling not guarded)
7.	1910.1025	7	1	\$ 3150	<u>Lead</u> (Over exposure to Pb, Lead standard not followed)
8.	5A1	7	5	\$ 13562	<u>General Duty Clause.. serious hazards not covered by a specific standard</u> (Ergonomics)
9.	1910.146	6	3	\$ 2438	<u>Permit Required Confined Spaces</u> (Workplace not evaluated, Confined space signs missing, Contractors not notified)
10.	1910.179	6	3	\$ 6500	<u>Overhead Cranes</u> (Rated load markings missing, No traveling warning device, Safety latch removed from hook, Daily inspections not being done)

COPPER FOUNDRIES (NAICS GROUP: 331525) / (SIC: 3366)

1.	1910.1025	12	3	\$ 3020	<u>Lead</u> (Over exposure to Pb, Lead standard not followed)
2.	1910.1000	6	2	\$ 1475	<u>Air Contaminants</u> (No testing, Overexposures to Silica, Metals etc.)
3.	1910.134	5	2	\$ 840	<u>Respiratory Protection</u> (No written program, Not medically evaluated, Worn over beards, Not stored properly, maintained or cleaned)
4.	1910.94	3	1	\$ 1260	<u>Ventilation</u> (Exhaust ventilation not provided)
5.	1900.1200	3	2	\$ 210	<u>Hazard Communication (HAZCOM)</u> (No written program, HAZCOM labeling missing, Training not provided)

ALUMINUM FOUNDRIES (NAICS GROUP: 331524) / (SIC: 3365)

	<u>Standard</u>	<u>#Cited</u>	<u>#Inspections</u>	<u>\$Penalty</u>	<u>Description</u>
1.	1910.134	20	9	\$ 7900	<u>Respiratory Protection</u> (No written program, Not medically evaluated, Worn over beards, Not stored properly, maintained or cleaned)
2.	1910.132	10	9	\$ 8330	<u>Personal Protective Equipment (PPE)</u> <u>General Requirements</u> (PPE not worn to protect from molten metal, Hazard assessment not completed, training not provided)
3.	1910.212	10	9	\$ 7429	<u>Machine Guarding</u> (Chuck guards missing, Pulleys, V-belts not guarded, Machines not anchored, Point of operation guard not provided, Guards not on machine)
4.	1910.303	10	7	\$ 3724	<u>Electrical- General</u> (Disconnects not labeled, Circuit breakers not Labeled, Electrical boxes blocked, Misuse of re-locatable power taps, High voltage rooms not labeled or locked)
5.	1910.95	8	6	\$ 9675	<u>Occupational Exposure to Noise</u> (Noise monitoring program not implemented, No audiometric testing program, No noise training program)
6.	1910.107	8	1	\$ 1000	<u>Spray Finishing using Flammable & Combustible Materials</u>
7.	1910.147	7	5	\$ 2863	<u>Control of Hazardous Energy (LOTO)</u> (No written program, Improper isolating device, No annual inspection, Employees not trained, Machine not locked-out)
8.	1910.157	7	6	\$ 3750	<u>Portable Fire Extinguishers</u> (Blocked, Not mounted, No monthly visual check, No annual inspection)
9.	1910.1000	7	4	\$ 2400	<u>Air Contaminants</u> (No testing, Overexposures to Silica, Metals etc.)
10.	1910.1200	7	6	\$ 2075	<u>Hazard Communication (HAZCOM)</u> (No written program, HAZCOM labeling missing, Training not provided)