



## Non-Ferrous Founders' Society

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### **ALUMINUM & COPPER NON-FERROUS FOUNDRIES Area MACT Standard (Subpart ZZZZZZ) Compliance Summary**

#### APPLICABLE TO ALL ALLUMINUM & COPPER FOUNDRIES

1. An affected aluminum foundry is a facility that melts and pours molten aluminum into molds to manufacture aluminum castings (except die casting) that are complex shapes and is an area source of Hazardous Air Pollutants (HAP).
2. An affected copper foundry is a facility that melts and pours molten copper or copper-based alloys into molds to manufacture copper or copper-based castings (except die casting) that are complex shapes and is an area source of Hazardous Air Pollutants (HAP).
3. You are subject to the subpart if your aluminum foundry uses materials containing one or more aluminum foundry HAP {any material that contains beryllium, cadmium, lead, or nickel in amounts greater than or equal to 0.1 percent by weight (as the metal), or contains manganese in amounts greater than 1.0 percent by weight (as the metal)}.
4. You are subject to the subpart if your copper or copper-based foundry uses materials containing one or more copper foundry HAP {any material that contains lead, or nickel in amounts greater than or equal to 0.1 percent by weight (as the metal), or contains manganese in amounts greater than 1.0 percent by weight (as the metal)}.
5. A new source is defined as a source that commenced construction or reconstruction after February 9, 2009.
6. Initial Notification that you are subject to the standard is due to the US EPA and your state agency NLT October 22, 2009.
7. Your aluminum, copper, or other non-ferrous foundry is not subject to the management practices of the standard if it has an annual melt production (for existing affected sources) or an annual melt capacity (for new sources) of less than 600 TPY of aluminum, copper, and other non-ferrous metals including all associated alloys {melt capacity for new sources is the maximum potential to melt}.
8. If you operate an existing aluminum or copper foundry you must determine if you are subject to the rule based on calendar year 2010 production.
9. If you operate an existing affected foundry you must achieve compliance with the standard NLT June 27, 2011.
10. If you start-up a new affected source you must achieve compliance upon start-up.

## MANAGEMENT PRACTICES REQUIRED (all affected foundries)

1. Cover or enclose each melting furnace that is equipped with a cover or enclosure during the melting operation to the extent practicable (e.g. except when access is needed including, but not limited to, charging, alloy addition, and tapping).
2. Purchase only scrap that has been depleted (to the extent practicable) of aluminum foundry HAP, copper foundry HAP, or other non-ferrous foundry HAP (as applicable) in the material charged to the melting furnace, except metal scrap that is purchased specifically for its HAP metal content for use in alloying or to meet specifications for the casting. {does not apply to material which is not scrap such as ingots, alloys, sows, or material which is not purchased such as customer returns and internal reruns}
3. Prepare and operate in accordance with a written management practices plan. This plan must include:
  - a. Practices to implement, monitor, and ensure compliance with the furnace cover or enclosure practices shown above. {This includes training for operations and supervisory personnel}
  - b. Practices governing metal scrap as detailed above.
  - c. Additional practices required for large copper-based foundries as detailed below.

## ADDITIONAL REQUIREMENTS FOR LARGE FOUNDRIES (copper-based only)

1. A “Large Foundry” in this subpart means an existing *copper or other non-ferrous foundry* with an annual melt production of copper, other non-ferrous metals, and all associated alloys (excluding aluminum) of 6,000 tons or greater. A new large foundry is one with an annual metal melt capacity of copper, other non-ferrous metals, and all associated alloys (excluding aluminum) of 6,000 tons or greater.
2. It is important to note that in the item above all non-ferrous alloys must be counted. For example if a copper foundry melted 5,999 tons of copper based alloy in 2010 and 3 tons of other non-ferrous (could be zinc, tin, etc—but excluding aluminum) it would be a “Large” foundry as long as one of the alloys contained a reportable HAP concentration. This same use of all non-ferrous alloys must be used to determine if a facility triggers the 600 TPY exemption value—but aluminum is NOT excluded.
3. A “Small” foundry must make notification of a status change if production increases to 6,000 TPY or greater. {Copper Foundries only}
4. Once classed as a “Large” foundry you will have to comply with the applicable requirements for a large foundry even if your production level drops below 6,000 TPY.
5. An existing large foundry must achieve a particulate matter (PM) control efficiency of at least 95% or emit no more than an outlet PM concentration of 0.015 gr/dscf.
6. A new large foundry must achieve a particulate matter (PM) control efficiency of at least 99% or emit no more than an outlet PM concentration of 0.010 gr/dscf.
7. A large foundry must conduct a performance test (stack test) for each melt collector at the within 180 days of the final compliance date and report the results.
8. If any, or all, of the affected collectors have been tested within the past 5 years using the test methods specified by the subpart these results may be used as long as there have been no process changes since the test.
9. Follow-up stack testing is not required {as it is in the Iron and Steel Area MACT subpart}.

10. A large foundry must conduct visual monitoring of the fabric filter discharge points for any visual emissions (VE) in accordance with the following schedule:
  - a. One per day for each day the foundry is operating the melt furnace/s.
  - b. If no VE is recorded for 30 consecutive days of operation you may decrease the number of VE readings to once per calendar week. If VE is recorded you must revert to the daily schedule of readings until 30 consecutive daily readings again show no VE.
  - c. If VE is observed you must initiate procedures to determine the cause of the VE within one hour of the initial observation—and alleviate the cause of the emissions within three hours of the initial observation.
11. As an alternative to VE readings you may install, operate, and a bag leak detection system for each affected fabric filter. The requirements for the equipment, installation, and operation of the bag leak detection system are lengthy and are detailed in the subpart. NFFS will provide additional information on this alternative to VE readings at a later date.

### COMPLIANCE CERTIFICATION

1. You must submit a Notification of Compliance Status no later than 120 days after the compliance date of June 27, 2011. If you are a “Large Foundry” required to conduct a stack test/s you must submit your Notice of Compliance Status no later than 60 days after completing the performance test. Your notification must indicate if you are a small or large foundry (except aluminum foundries). **{Visit the NFFS website at [www.nffs.org](http://www.nffs.org) and log in for a template}**
2. The notification must follow the format specified in the subpart (again, NFFS will provide a template for members with detailed instructions).

### REQUIRED RECORDS

1. Copy of initial notification letter
2. Copy of Notification of Compliance Status
3. Documentation of conformance with furnace cover and enclosure management practice
4. Documentation of conformance with metal charge and metal scrap requirements
5. Records of all performance tests (if applicable)
6. Bag Leak detection System records and details (see subpart)
7. Results including date, time and problems of all VE readings (NFFS will provide a recommended format in the future)
8. Records of maintenance and corrective action taken for all pollution deviations (melt only)
9. Copies of all semi-annual compliance certifications
10. **YOU MUST RETAIN ALL RECORDS FOR A PERIOD OF 5 YEARS**—records for the past 2 years must be available on-site.

**CONTINUING COMPLIANCE CERTIFICATION**

1. Your first compliance reporting period begins on the date of your notice of compliance status and ends on either June 30 or December 31. Each subsequent semi-annual compliance certification will cover the period January 1 through June 30 and July 1 through December 31.
2. Compliance reports are due in the month following the compliance period (July 31<sup>st</sup> or January 31<sup>st</sup>).
3. Compliance Report templates will be provided by NFFS at a future date for all members

**Compliance & Reporting Date Summary**

<b><i>Date Due</i></b>	<b><i>All Fdy</i></b>	<b><i>Large Cu Fdy</i></b>	<b><i>Report</i></b>
October 22, 2009	Yes	Yes	Initial Notification of Applicability
January 1, 2011	Yes	Yes	Final Determination of Applicability {No written report required}
January 1, 2011	Cu	Yes	Copper Foundries determine status—Large or Small
Before 6/27/11	No	Yes	Complete Performance Testing to Demonstrate Compliance with the PM Limits
Before 6/27/11	No	Yes	Submit Performance Testing Results (must be NLT 60 days after test conducted)
June 27, 2011	Yes	Yes	Final Compliance Date for all Existing Affected Foundries, include Large or Small Status for Cu Foundries
July 30, 2011	Yes	Yes	1 <sup>st</sup> Semi-Annual Compliance Report (certification and deviation report)
July 30 <sup>th</sup>	Yes	Yes	Semi-Annual Compliance Report (certification and deviation report)
January 31 <sup>st</sup>	Yes	Yes	Semi-Annual Compliance Report (certification and deviation report)
As Required	Cu	No	Change in Small Foundry Designation Applicability (should review status annually)

*NOTE: This new Area MACT subpart will be enforced primarily by the state agencies. The agencies will undoubtedly continue to review it and modify their method of reporting and enforcement for the next few years. We will advise you of changes as we are aware of them, but please remember that methods of reporting and enforcement can vary from state to state.*

JAG/s  
10/7/2009