

**The American Foundry Society**  
**Comments on the Proposed Amendments to the**  
**Mandatory Reporting of Greenhouse Gases Rule, Subpart TT**  
*Docket No. EPA-HQ-OAR-2011-0147*

**September 19, 2011**

The American Foundry Society (AFS) hereby submits these comments on the United States Environmental Protection Agency (EPA) August 4, 2011 proposed amendments to the mandatory reporting of greenhouse gases (GHG) rule, Subpart TT. 76 Fed. Reg. 47392 (2011). In the comments provided below, AFS summarizes why EPA should consider modifying the rule for GHG emissions from industrial waste landfills.

**I. INDUSTRY OVERVIEW**

AFS is the major trade and technical association for the North American metalcasting industry. AFS has more than 7,000 members representing over 2,000 metalcasting firms, their suppliers and customers.

The organization exists to provide knowledge and services that strengthen the metalcasting industry for the ultimate benefit of its customers and society. AFS seeks to advance the sciences related to the manufacture and utilization of metalcasting through research, education and dissemination of technology. AFS also provides leadership in government relations, marketing, management and human resources for the metalcasting industry.

The practice of melting and casting metal into solid forms has served society's needs for more than 5,000 years. Metal castings are the foundation for all other manufacturing, and metal casters have been a vital building block for every nation's economic wealth. Every sector relies on castings, 90 percent of all manufactured goods and capital equipment incorporate engineered castings into their makeup. The major industries supplied by metalcasting include agriculture,

construction, mining, railroad, automotive, aerospace, communications, health care, defense and national security.

The American metalcasting industry provides employment for over 200,000 men and women directly and supports thousands of other jobs indirectly. The industry supports a payroll of more than \$8 billion and sales of more than \$36 billion annually. Metalcasting plants are found in every state, and the industry is made up of predominately small businesses. Approximately 80 percent of domestic metal casters have fewer than 100 employees.

## **II. SUMMARY OF COMMENTS**

### **A. Proposed Delay in Reporting Deadline**

AFS appreciates the proposed delay in the reporting deadline from March 31, 2012 until September 28, 2012. AFS requests that EPA consider a one-year extension to the applicability of the reporting rule until January 1, 2012 (i.e., first reporting year being 2012 instead of 2011) based on the complexity of the rule, as well as the regulatory confusion and uncertainty resulting from the numerous errors and clarification issues associated with the reporting requirements and methodologies. This extension would provide additional time for facilities to more accurately calculate potential GHG emissions from industrial waste landfills.

### **B. Equations for Determining Volatile Solids and DOC Values**

For determining volatile solids and degradable organic content (DOC) values, EPA has proposed to delete Equation TT-7 and amend Equation TT-8. This proposed change would allow the use of Standard Method 2540G to determine the total carbon that is degradable within a foundry residual waste landfill (foundry landfills) or DOC. EPA appears to assume that ignitable carbon, or other constituents that may be lost when the foundry wastes are heated from 105°C to 550°C, is either bio-available to bacteria present in the foundry landfill or that the foundry landfills may occasionally catch fire, and thus emit this carbon as greenhouse gases. This is simply does not occur. Compared to municipal waste landfills, there are only small amounts of

bacteria present in foundry landfills. In addition, foundry landfills have not been known catch fire.

EPA states in the July 12, 2010 Federal Register preamble to the final rule that the intent of a number changes related to industrial waste landfills was “to focus on industrial waste landfills that have a potential to generate significant quantities of methane rather than all landfills.” AFS is not aware of any foundry landfills that have been designed with gas venting or gas extraction systems. More importantly, AFS is not aware of any instance where a foundry landfill has experienced cap damage caused by gas pressure generated by the foundry wastes placed in the landfill. If methane gas was generated to any significant degree in foundry landfills, or if methane generation was causing damage to impermeable landfill caps in foundry landfills, state environmental regulatory agencies would have required these landfills to be designed with gas venting or gas extraction-collection systems. It is, therefore, reasonable to conclude that methane or other GHGs are not being generated in any significant amounts in foundry landfills.

EPA is also proposing to limit the reporting requirements of coal mines to only those venting 36,500,000 acf per year of methane (Subpart FF). By specifically exempting smaller coal mines, EPA is making it clear that it is only interested larger more gassy coal mines with actively venting systems. Similarly, EPA is proposing that the gas and petroleum industry only report those work overs with hydraulic fracturing that are actively venting gas to the atmosphere or flaring gas at the surface §98.236 (c)(6)(ii)(B).

The proposals for coal mines and the gas and petroleum industry confirm that EPA should only be interested in those landfills with significant methane generation. Accordingly, EPA should not require reporting on landfills with impermeable composite cover systems and no gas venting, as the gas production at these landfills is normally too low to require active venting. AFS requests that industrial waste landfills that are no longer active (*i.e.*, capped) and do not have active gas venting should be exempt from reporting.

AFS can find no data or references to foundry landfills in the Agency’s technical support document to this rule that foundry landfills generate methane gas. It appears that EPA has not

conducted any tests such as gas formation fermentation test (GB21) to determine if foundry sand emits methane. Foundry sand has historically been considered inert. It is, therefore, inappropriate to place this mandatory GHG reporting burden on an industry if the Agency cannot demonstrate that it has any data to warrant the need for reporting.

Replacing “F<sub>x</sub>” with “F”, the “Fraction by volume of methane in landfill gas ...” for foundries is unfounded because foundry landfills do not produce methane and do not have gas collection systems. The “F” should, therefore, be replaced with 0.5 percent, if the Agency insists on using this formula for GHG emissions that do not exist.

As part of this rule EPA asserts that (fly ash) is inert and produces less than 0.5 percent volatile solids in accordance with Standard Method 2540G. It does not appear that EPA has published data to demonstrate that ash is inert, but rather has relied on the other facts and data that has not been published that ash is not bio-available and ash landfills do not burn. A similar conclusion should be established for foundry landfills.

### **C. Revision of “January 1, 1980” to “January 1, 1960”**

EPA has asserted that due to a typographical error, it is revising the applicable time period for landfills from January 1, 1980 to January 1, 1960. Revising 1980 to 1960 may be an inadvertent typographical error for the Agency, but this is a significant change and requires the metalcasting industry to try to gather disposal information or production records for an additional *twenty years*. Prior to the 1980’s, many states did not have regulations covering the design, permitting and construction of industrial landfills, let alone municipal solid waste landfills. As a result, industrial facilities typically did not keep good records for the quantity of industrial waste disposed in on-site landfills, nor do many industrial facilities have good production records that date back to the 1960’s and 1970’s. Accordingly, this change would impose a significant burden on facilities with landfills that are subject to the GHG reporting requirements.

Given the amount of effort required to comply with this proposed change to Subpart TT, the Agency should demonstrate the need for gathering this information relative to the quantity of

GHG generation for the years between 1960 and 1980 before nonchalantly imposing such a significant regulatory burden on impacted facilities.

As an illustration of why this proposed change is unnecessary, AFS has calculated the additional GHG emissions from the period 1960 to 1980 for a hypothetical industrial waste landfill site. Using just the default values in the Equation TT-1, and a disposal rate of 23,750 metric tons of foundry waste per year (from 1960 to 2011), the additional metric tons of methane emissions between 1960 and 1980 is 252 metric tons compared to a total of 1377 metric tons for the whole 51 years, which is 18.3 percent of the total. Given that the quantity of waste disposed between 1960 and 1980 in this hypothetical example is close to 40 percent of the total of the waste disposed over the life of the site, the burden on facilities to gather (and perhaps more appropriately recreate) the data necessary to compute GHG emissions prior to 1980 appears to exceed the benefits from reporting such historical information.

#### **D. 40 CFR Part 98.464(b)(1) – Sampling of Landfill Materials**

EPA has proposed to add the parenthetical Phrase, “as received at the landfill” to 40 CFR § 98.464(b)(1). This proposed change does more than clarify that closed landfills are not to be sampled. For foundry landfills, the phrase appears to prevent the foundry from testing individual waste streams that may be commingled for shipment to the landfill. This is a concern because some of these individual waste streams may be exempted under § 98.460.

#### **E. 40 CFR Part 98.468 – Definition of Design Capacity**

EPA has proposed to add the definition of “design capacity” to provide further clarification of the rule. Based on this definition of design capacity, unpermitted landfills as well as state regulated landfills without a specified capacity limit are not covered by this rule. AFS requests clarification from EPA on this issue.

### **III. CONCLUSION**

AFS appreciates this opportunity to provide these comments on the proposed amendments to the mandatory reporting of GHG rule, Subpart TT. If you have any questions or would like additional information about the comments, please contact Christian Richter or Jeff Hannapel with our AFS Washington office at [crichter@thepolicygroup.com](mailto:crichter@thepolicygroup.com) or [jhannapel@thepolicygroup.com](mailto:jhannapel@thepolicygroup.com).