



Boiler MACT Major Source Rule Discussion with OMB

May 15, 2012

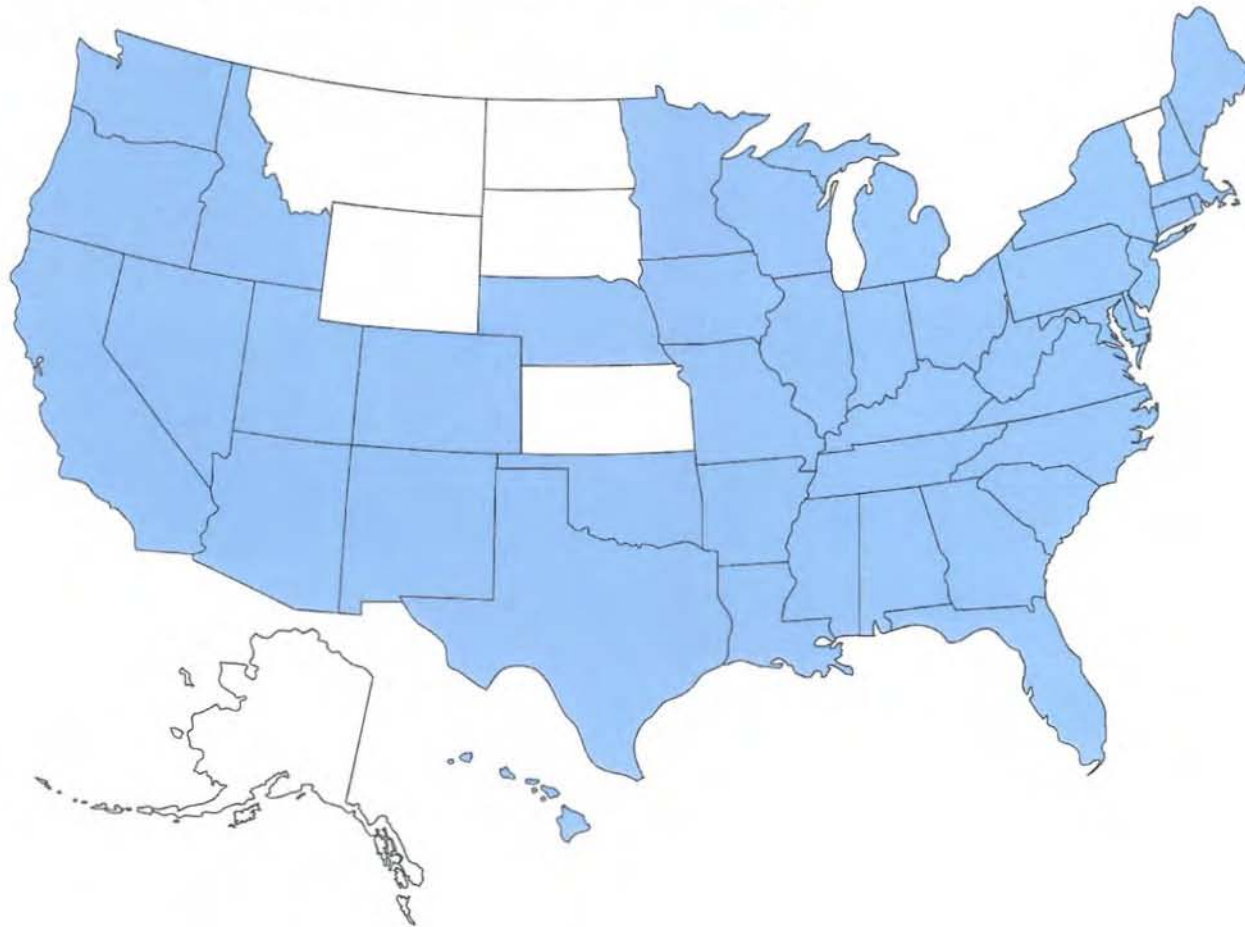




Agenda

- Introductions
- Background on U.S. Industry
- Process Gases as a Fuel Source
- Impact of Boiler MACT Proposal
- Options for Maintaining and Encouraging Use of Process Gases

AISI Represents Members with facilities in 43 States

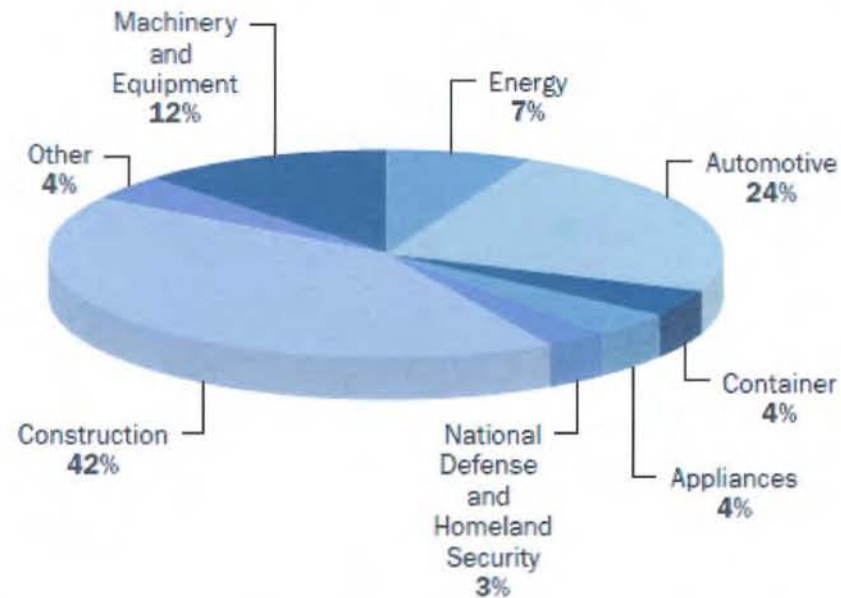


The U.S. steel industry adds more than one million direct and indirect jobs to the economy.



Steel's Presence Throughout America

2011 Steel Shipments by Market Classification



Source: American Iron and Steel Institute





Committed to Building a Sustainable Future

- Steel is the most recycled material — more than aluminum, paper, glass, copper and plastic combined.
 - Overall recycling rate is 88%
 - 76 million tons were recycled in 2010
- The U.S. Steel industry improved its energy efficiency by 27% since 1990
- The U.S. Steel industry historically has beneficially used its process gases that it generated from its operations.



Importance of Process Gases

- Large quantities of Coke Oven Gas (COG) and Blast Furnace Gas (BFG) are generated during coke and steel production at integrated plants
 - After processing (cleaning of BFG and removal of useful by-products from COG), approximately half of this gas is recycled back into direct coke, iron and steel making processes.
- The excess process gas offsets fossil fuel consumption by its use in boilers and other equipment (e.g., metal process heaters)
 - One member company alone recovers nearly 60 Billion BTUs of excess COG and BFG energy through its boilers and metal process heaters annually.
 - This reduces the need of additional fossil fuels, and is the energy equivalent consumption of approximately 600,000 U. S. households annually. (Energy Information Administration, Annual Energy Review: Energy consumption per U. S. household)
- Alternative to use in boilers is to flare it.



The Boiler MACT Rule Must Exempt Process Gases

- Without clarification from EPA, Boiler MACT will:
 - Send COG to flares instead of boilers
 - Increase fossil fuel use at the boilers
 - increase emissions
 - Increase cost
- Proposed exemptions are too narrow
 - Blast furnace gas if 90% by volume
 - Control device to comply with another part



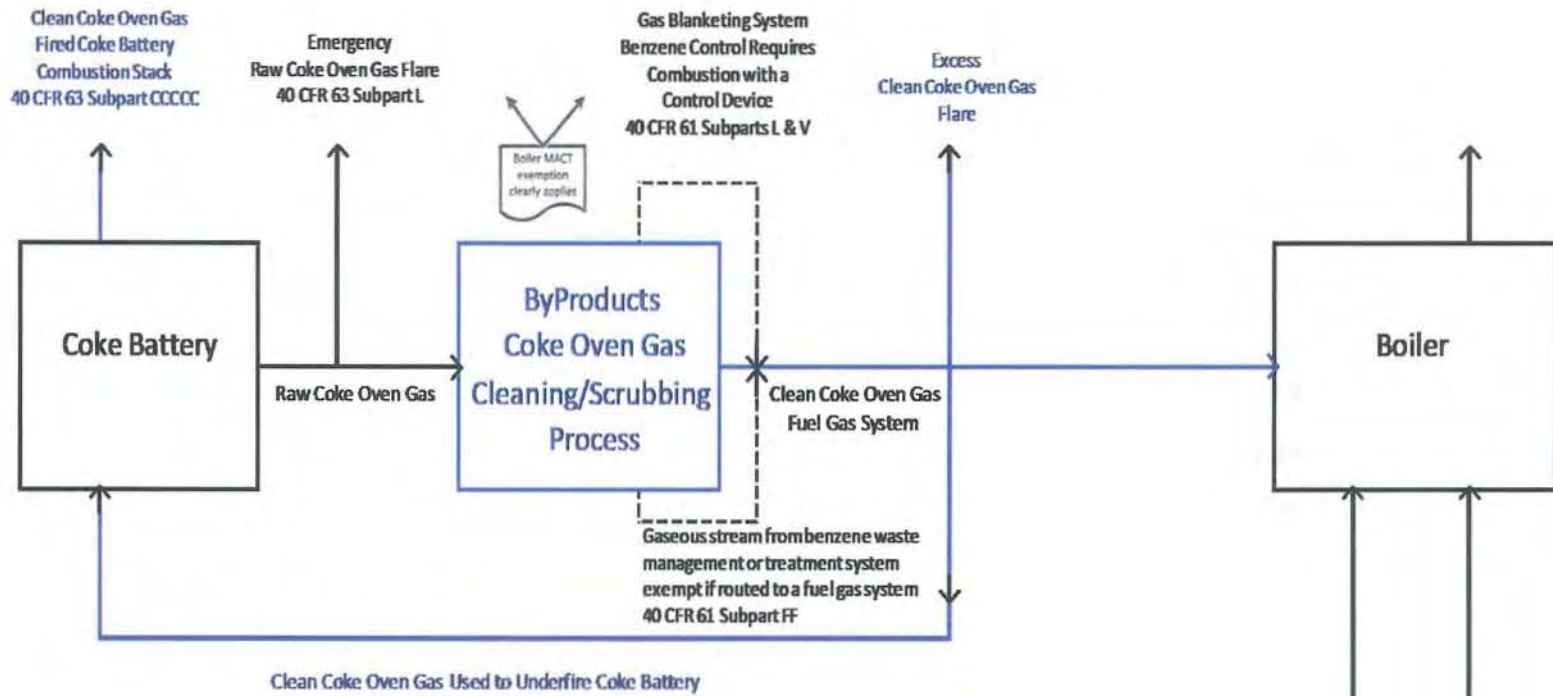
Recommendation and Options

- It is good for the environment to use COG as a fuel and not waste that heat at a flare
- Option #1: Clarify the definition of “waste heat” boiler (and process heater) to include boilers that recover heat otherwise wasted when process gas is burned at a flare
 - *“Waste Heat boiler means a device that recovers normally unused energy and converts it to usable heat. Waste heat boilers are also referred to as heat recovery steam generators. This definition includes both fired and unfired waste heat boilers.”*
- Insert: “and the combustion of process gases otherwise flared.”



Recommendation – option #2

- Clarify the currently proposed exemption:
 - *“Any boiler or process heater that is used as a control device to comply with another subpart of this part, or part 60, or part 61 of this chapter provided that at least 50 percent of the heat input to the boiler or process heater is provided by the gas stream that is regulated under another subpart.”*
- Coke ovens and byproducts plants are highly regulated under parts 61 and 63.
- Some COG streams clearly qualify for this exemption, others may not. All are collected in a common fuel gas system sent to be combusted.
- Clarify that COG in a fuel gas system is a regulated gas stream exempt under this provision.
- Clarify that blast furnace gas and natural gas is not to be considered when calculating the 50% heat input threshold



Proposed exemption:

(i) Any boiler or process heater that is used as a control device to comply with another subpart of this part, or Part 60, or Part 61 of this Chapter provided that at least 50 percent of the heat input to the boiler or process heater is provided by the gas stream that is regulated under another subpart.

Coke oven gas in a fuel gas system is a regulated gas stream exempt under this provision. Exempt fuels and natural gas shall not be considered in calculating the percent heat input provided by a regulated gas stream.

