Issues re Pending Proposed Rule: Industrial Boiler MACT

Alliance of Automobile Manufacturers

American Petroleum Institute

March 23, 2010

Overview: Key Points

- **Gas fired units, relative to other fuels, have the lowest emissions and pose the lowest risk.** Existing gas units were not subject to the 2004 Boiler MACT rule (which this rule replaces). No controls were identified.

- Based on discussions with EPA about its current approach to floor-setting for Boiler MACT and our analysis of the available EPA summary emissions data**, there is no identified add-on control or technique that would allow the vast majority of units to meet numeric limits** for any one of the 5 HAP– *i.e.*, no means to achieve compliance.

- **And No units are demonstrated to be able to comply with estimated floor facility limits for all 5 HAP simultaneously**.

- Without identified means to compliance, **EPA cannot provide an adequate Regulatory Impact Analysis** assessing technical feasibility, costs, and collateral impacts on air pollution and energy.

- Too rigid an approach around unworkable numeric emissions **could have the perverse effect of discouraging gas use.**

- **EPA has legal discretion to address these concerns** – the proposed rule should invite comment on a broad array of **alternate approaches** to address gas-fired equipment.

Today's Focus = Gas Fired Units

- Major Policy Shift to now impose MACT on existing gas-fired units, even though cleaner than alternative fuels.
  - EPA hadn't proposed limits for them in 2004 MACT rule, because no controls in use. (New Sources only had CO limit.)

- Many facilities made big cost investments to switch to natural gas as means to minimize regulatory concerns and for other reasons.

- Will affect enormous # of businesses/units of all sizes…

  ….with boilers and process heaters of various sizes, ages, gas fuel sources, geographic locations, site need differences, etc.

- EPA reliance on a rote, mechanical calculation of emissions limits from the database may well result in disincentives to use natural gas—an "absurd result".

5 HAP in Boiler MACT Proposal

1. Filterable Particulates (PM)
   (Surrogate for Total Metals)
2. CO (Carbon Monoxide)
   (Surrogate for Total Hydrocarbons)
3. HCl (Hydrochloric Acid)
   (Surrogate for Acid Gases)
4. Hg (Mercury)
5. Dioxins/Furans (TEQ)

Bottom Line Problems

- Data as a whole and in floors are riddled with inconsistencies and anomalies.
- The test data driving the floors show extremely low concentrations of HAP, while the number of affected units are very large with considerable range of emissions levels.
- WE CAN FIND NO “CAUSE AND EFFECT” TO EXPLAIN WHY THE LOWEST EMISSIONS OCCUR -- SO NO PATHWAY TO COMPLIANCE IDENTIFIED.

WE CAN FIND NO "CAUSE AND EFFECT" TO EXPLAIN WHY THE LOW EMISSIONS OCCUR

1. Floor Units do not suggest control technologies or techniques for HAP for gas-fired units.
2. The gas units we anticipate may drive the floors have **no vendor guarantees or add-on control technologies for HAP.**
3. **NO demonstrated WAY to achieve *any* of the HAP limits, much less all 5 HAP limits simultaneously.**

NO "RECIPE FOR SUCCESS" TO ASSURE COMPLIANCE WITH PRM LIMITS

- No identified means to replicate the low floor emissions values for purposes of compliance.
- No demonstrated "feasibility" to extrapolate floor results…
- Therefore, EPA needs to invite comment on alternative approaches to numeric limits for gas.

NEED THE "ACT" IN MACT

- What is the Burden on EPA to show that at least one concrete means of "Achievable Control Technology" or technique exists to meet the emissions limits imposed for the facilities regulated?
  - **This doesn't mean EPA can or should "mandate" a specific technology but should be able to identify and articulate at least one demonstrated "means" to compliance.**

- The apparent manner in which EPA is setting the emission limits leads to absurd results and is unsound from a policy standpoint -- and may be arbitrary and capricious.

- **EPA Cannot Provide an adequate Regulatory Impact Analysis re burden on industry if it can't identify the means to compliance and related costs.**

Floor/Data Concerns

1. To date, EPA has shared the summary data from survey and field tests, but not its numeric calculations of the floors or the identities of facilities driving the floors.

2. Overall, based on industry reviews of the EPA database summaries, **the anticipated HAP levels for Gas Units are *extremely* low.**

   - for several HAP, close to the detection limits or quantitation capability of tests, making future MACT compliance with such low numbers problematic.

   -data quality issues will continue to emerge with "moving target" of floor units (missing data; errors in data; lack of detail on test methods and interpretation of results – e.g., what was detection limit vs. quantitation limit, etc.)

Detection/Quantitation Issues

- Some of the lowest HAP levels are detected at levels considerably lower than undetectable levels achieved in other tests.
  - The lowest levels and detection limits are not reproducible.
  - Limits established from these data would not be attainable with consistency even by the best performing units.

- The levels of pollutants emitted from gas-fired units by the lowest emitters are extremely low, and in some cases are indistinguishable from ambient air near the lowest detectable levels.

- If numerical limits are proposed, they should be based on quantifiable and reproducible test results consistent with reliable source test methods that have well-established performance. Limits should not be based on tests and methods that raise issues of measurement noise and other uncertainties.

- Numeric emissions standards should not be set that are substantially based on non-detect values in test results .

Need to Consider Collateral Impacts of Numeric HAP Limits

- The potential adverse impacts of emissions limits for the five HAP need to be explicitly considered:
  - For example, if reduce CO very low beyond what is adequate to protect health, can increase NOx emissions (inverse relationship, if CO down, NAAQS pollutant NOx goes up).
  - Same with CO2 emissions.

Urgency re Lower Btu Gas Units

(Gas II)

- Industry concern that MACT requirements for landfill gas will discourage use despite big benefits
- If such gases aren't combusted in boilers, they are combusted or flared without using the energy.
- Use of landfill gas reduces GHG load and displaces use of other fossil fuel.
- Urgent issue for business, given near term investments and long term contracts underway.

Summary

- EPA has the legal flexibility to avoid establishing standards that cannot be achieved.

- The concurring opinion in the Brick MACT court decision recognized that what is "achieved in practice" and what is "achievable" must be "in accord with common sense and the reasonable meaning of the statute."

- For numeric limits, the proposed rule should reflect identified means to compliance, which are evaluated for feasibility, cost, and collateral environmental impacts in the Regulatory Impact Analysis. Ability to comply for the HAP as a group must be demonstrated as achieved.

- EPA can and should take comment on a range of approaches, including :
    A. Defining HAPs that are appropriate to the subcategory
    B. Applying Work Practices
    D. Adjusting the standard to fully account for variability of the test method
    E. Using risk-based limits consistent with CAA 112(d)(4) where appropriate
    F. Putting gas units in a separate source category; consider delisting.

Contacts

Valerie Ughetta

Alliance of Automobile Manufacturers

202 326 5549; vughetta@autoalliance.org

Matt Todd

American Petroleum Institute

202-682-8319; ToddM@api.org

Appendix:
Overview of Industrial Boiler MACT

- **2004 Final Rule** covered primarily solid fuel/coal and liquid oil-fired units.
- Only new/modified gas-fired units regulated, and only for CO.
- 2004 Final Rule was **vacated by US Ct. Appeals**, for review of definition of solid waste incinerators vs. boilers (re 129 rule vs. 112 rule scope of applicability).
- Meanwhile, **new MACT case law** re Brick MACT etc., become applicable BUT are still subject to evolving interpretation.
- Replacement rule **deadlines** for 4/15/10 PRM and 12/16/10 Final Rule.
- 2010 PRM will include solid fuel (e.g., coal, biomass) liquid fuel (oil), but **also for the first time regulate existing sources for gas-fired units as well as lower BtU gases, e.g., landfill gas.**