



NACAA Model Rule for Industrial, Commercial and Institutional Boilers

May 7, 2008

EPA's MACT standard for ICI Boilers is vacated

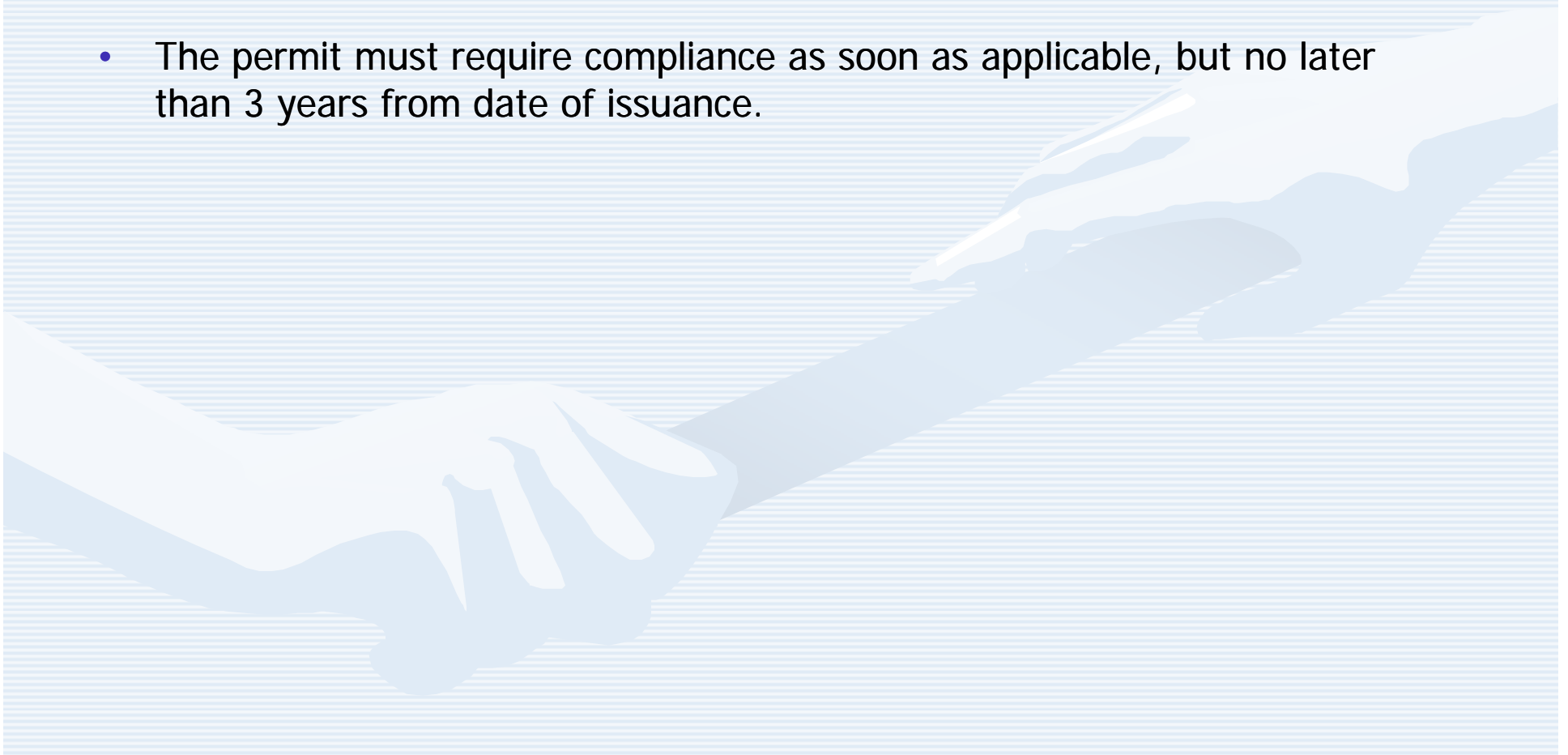
- In *Natural Resource Defense Council v. EPA*, No. 04-1385, June 8, 2007, the Court overturned and vacated EPA's MACT standard for Industrial, Commercial and Institutional Boilers and Process Heaters ("ICI Boilers").
- As a consequence section 112(j) – the MACT "hammer" applies.
- Because of the unanticipated nature of the event, no specific deadline for permit applications can be cited, however, it is clear that EPA has missed the statutory deadline.
- It is currently unlawful for a source that is within this category to operate without a permit, however, a source may operate if it has submitted a complete application.

Strict permitting deadlines apply

- Application due within 18 months of statutory deadline (August 13, 2005).
- Analogous regulatory provisions would suggest 30 days after date of court decision. Applications clearly due within 30 days of notice from the permitting authority.
- Most extreme argument for a deadline would suggest December, 2008 (18 months after court decision).
- Once an application is received the permitting authority has 60 days to determine whether the application is complete (application form requires minimal information).
- The permitting authority may provide up to 6 months to rectify any deficiencies in the initial application.

Strict permitting deadlines apply

- The permit must be issued within 18 months of receipt of complete permit application.
- The permit must require compliance as soon as applicable, but no later than 3 years from date of issuance.



Requirements for 112(j) permits

- No less stringent than the “MACT floor” – the average emission limitation achieved by the best performing 12 per cent of the existing sources in the United States (for which the Administrator [permitting authority] has emissions information).
- MACT – the emissions limitation which reflects the maximum degree of reduction in emissions of hazardous air pollutants (including a prohibition on such emissions where achievable) that the Administrator [permitting authority] ... determines is achievable by sources in the category or subcategory to which such emission standard applies...
- ...taking into consideration the cost of achieving such emission reductions, and any non-air quality, health and environmental impacts and energy requirements...

NACAA decides to develop model rule

- Several thousand large and potentially complex facilities will require permitting over the next 12-24 months.
- Second largest emitting category (after electric generating units).
- EPA data is limited and up to 20 years old.
- NACAA retains consultant and forms technical committee.
- NACAA solicits additional HAP and HAP surrogate data from all NACAA members.
- NACAA comments on two EPA proposed “information collection requests.”

NACAA ICI Boiler MACT Review Committee

- Vinson Hellwig (Toxics co-chair, MI)
- Praveen Amar (NESCAUM)
- Elizabeth Basil (SC)
- Andrew Bodnarik (NH)
- Patricia Buonviri (VA)
- Daniel Donohoue, Lance Ericksen, Michelle Komlenic, Michael Mills, Mohsen Nazemi (CA)
- Gerald Ebersole (OR)
- Roger Fritz (WI)
- David Riddle (MI)
- Robert Colby (Toxics co-chair, Chattanooga, TN)
- James Hodina (Cedar Rapids, IA)
- William O'Sullivan, Sunila Agrawal, Olga Boyko, Yogesh Doshi, John Jenks, Ray Papalski, Erica Snyder, John Walsh (NJ)
- John Paul, Jennifer Marsee, Chris Clinefelter (Dayton, OH)
- Brad Reid (NE)
- James Snead, William Harris (DE)
- Christine Weaver (MT)
- Mary Sullivan Douglas (NACAA)

NACAA Process – Open, Objective, Inclusive

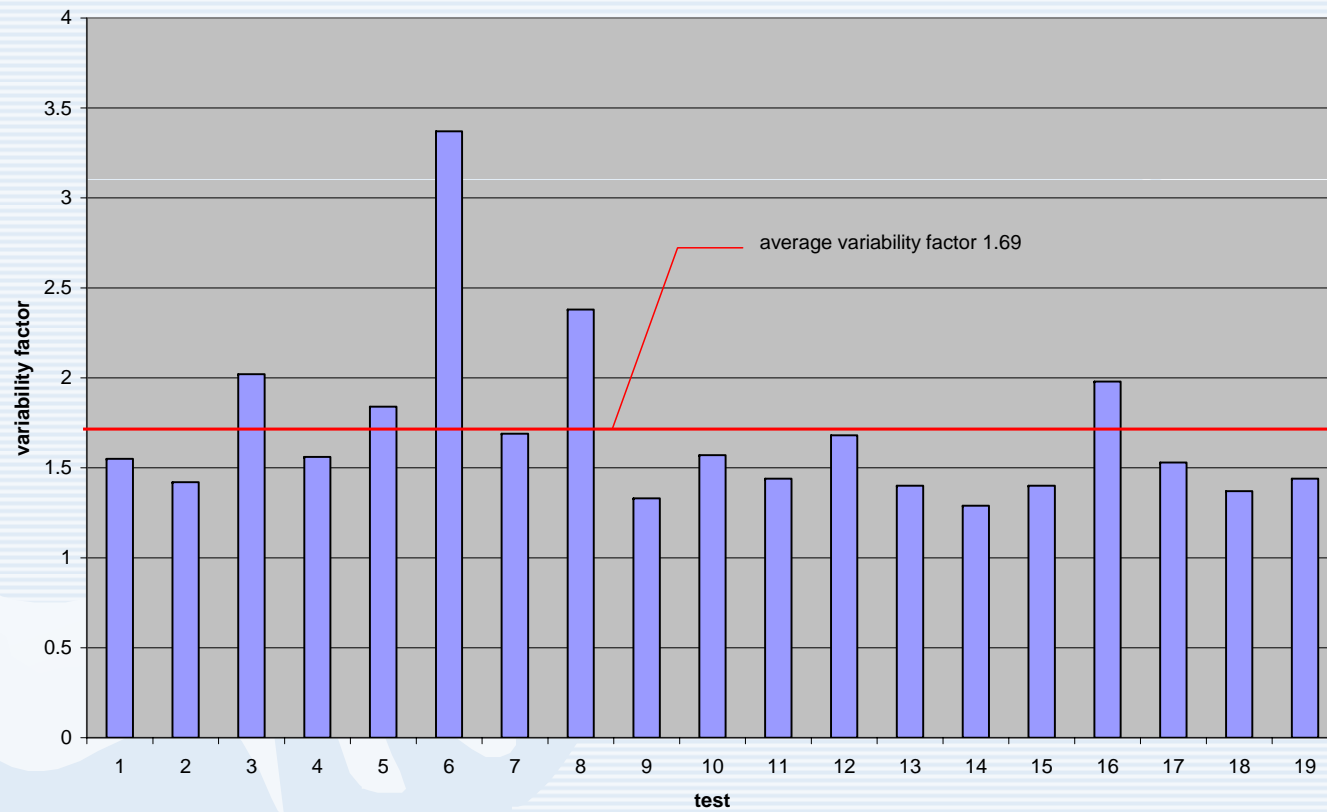
- Consulted with EPA, industry and environmental organizations on several occasions throughout the process
- Emissions data is publicly available and based on reference method testing approved by permit authorities
- Relied on judgment of permitting authority responsible for the source
- Technical committee open to all NACAA members
- Technical committee met by conference call approximately once every two weeks from November to May
- Regular updates provided to NACAA air toxics committee

Data summary and tentative recommendations for MACT floor

- Received responses from more than 40 state and local agencies
- Several thousand test results were provided. However, many were in a format that did not allow for direct comparison of performance with other facilities (i.e. tons per year or pounds per hour).
- Test results included approximately 750 data points that could be used to evaluate the MACT floor.
- Tentative recommendations for CO (surrogate for organic HAPs) and PM (surrogate for metal HAPs) follow
- Additional work underway on mercury, acid gases and QA/QC of data set.
- Additional review of: wet wood; #2 vs. #4 oil, NO_x vs. CO tradeoff issues

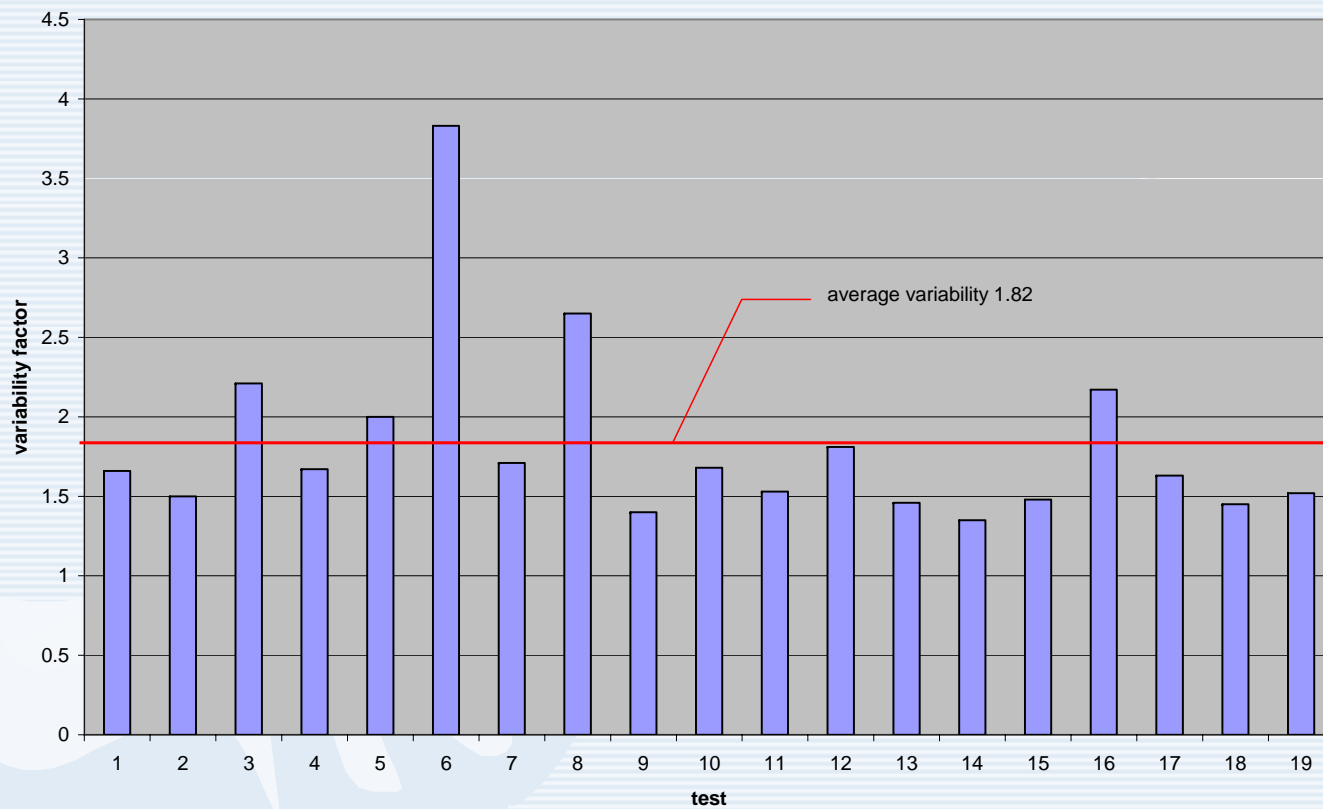
Variability Analysis – 90% confidence margin

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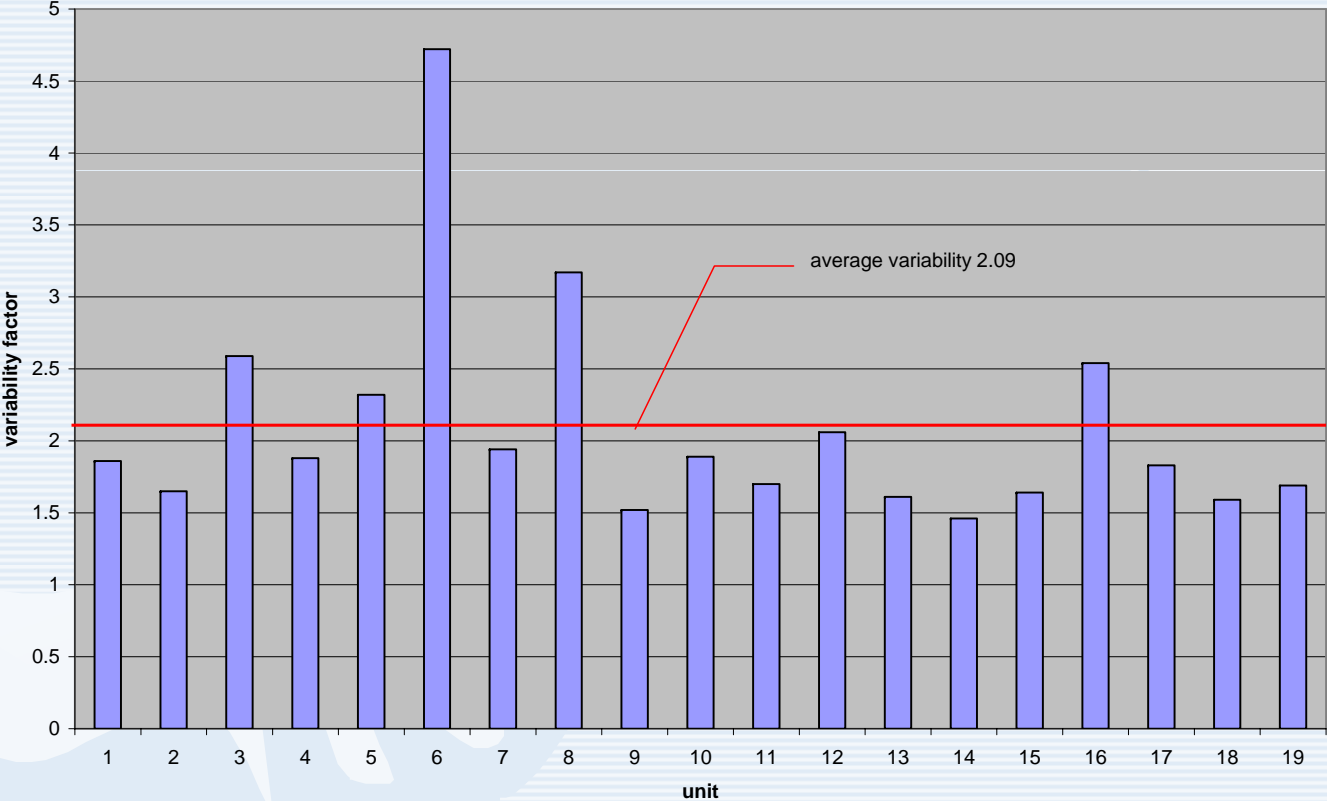
Variability Analysis – 95% confidence margin

Variability Analysis - 95% confidence margin

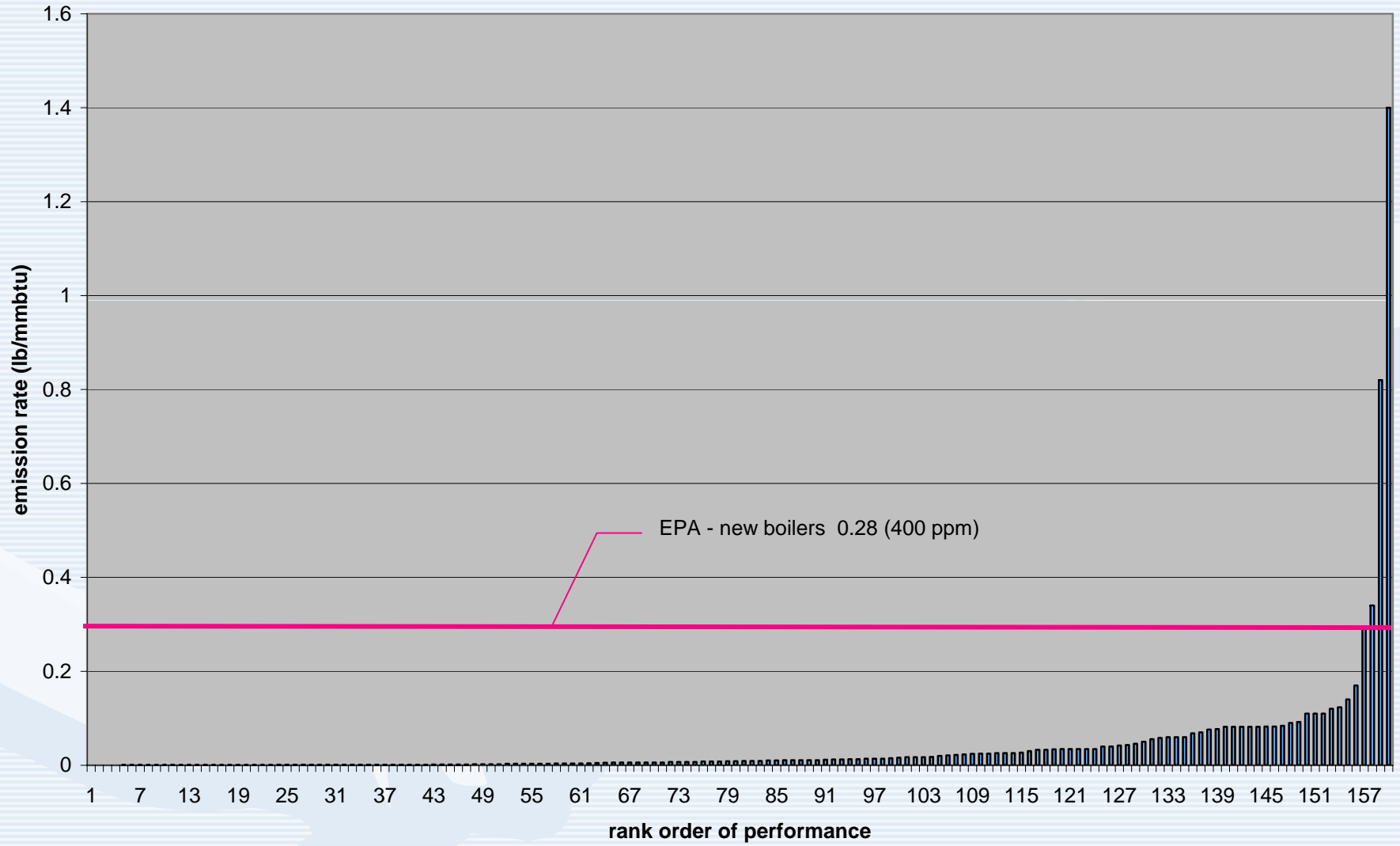


Variability Analysis – 99% confidence margin

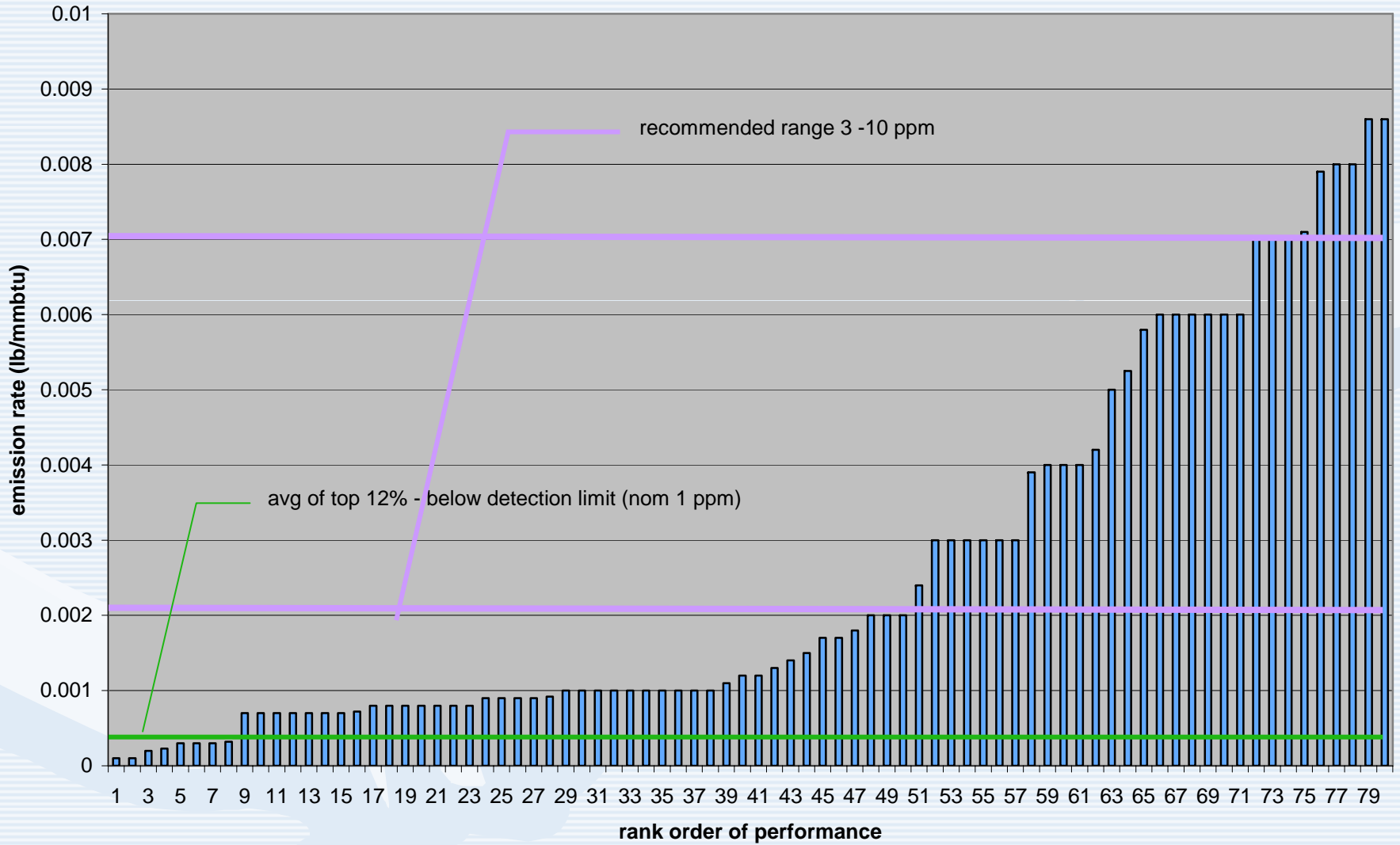
Variability Analysis - 99% confidence margin



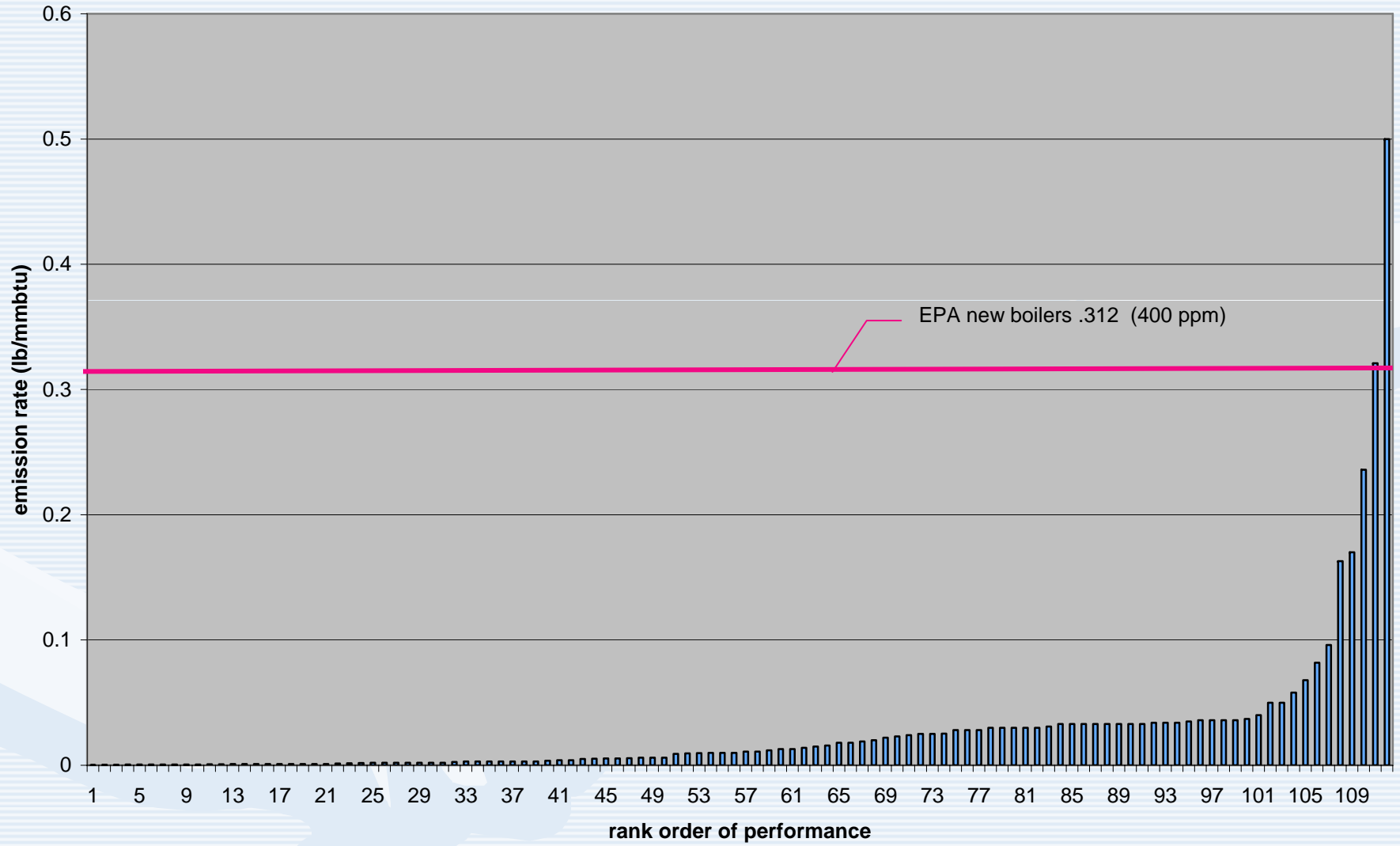
Gas fired boilers (CO)



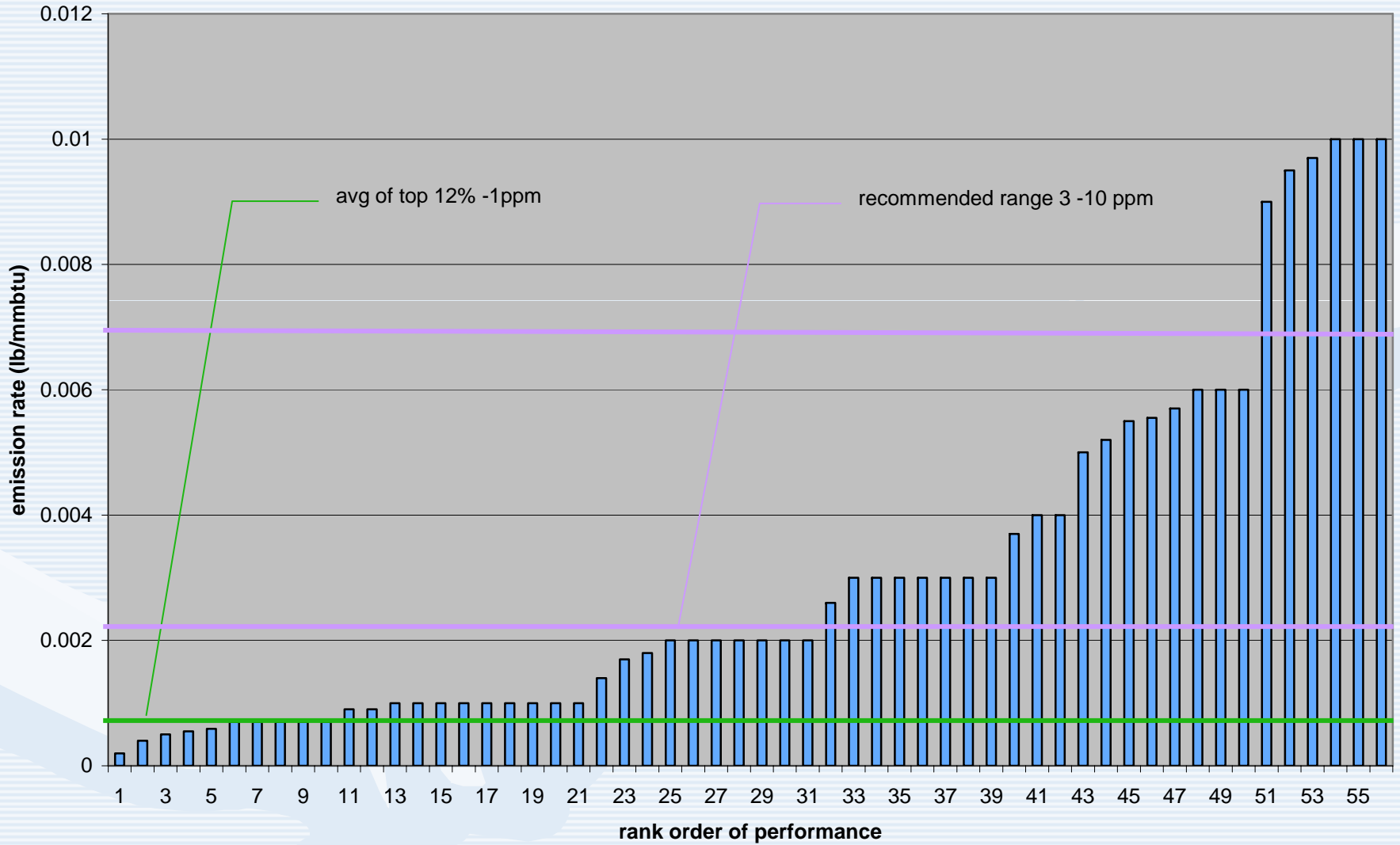
Gas Fired Boilers (50th percentile) (CO)



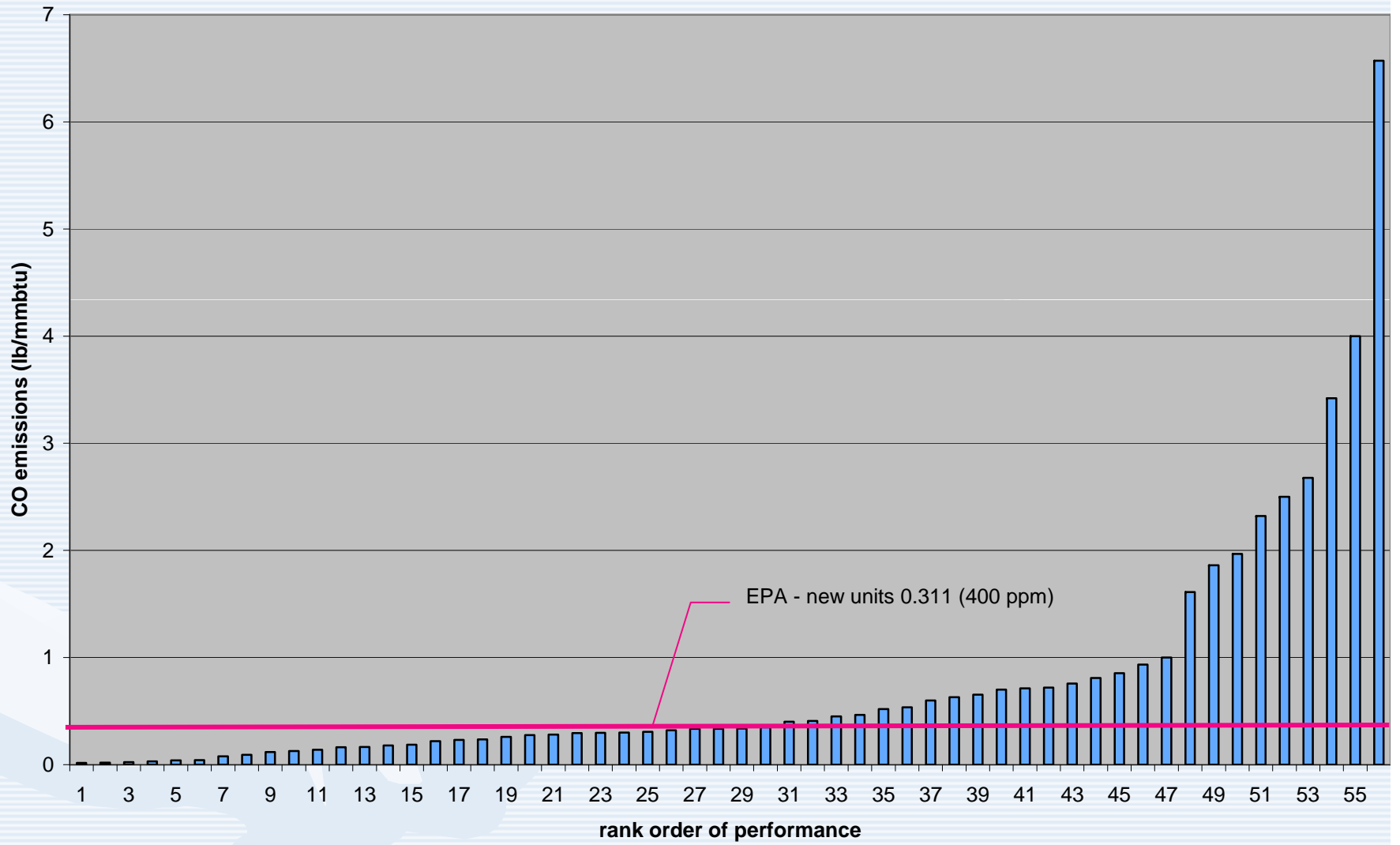
Oil Fired Boilers (CO)



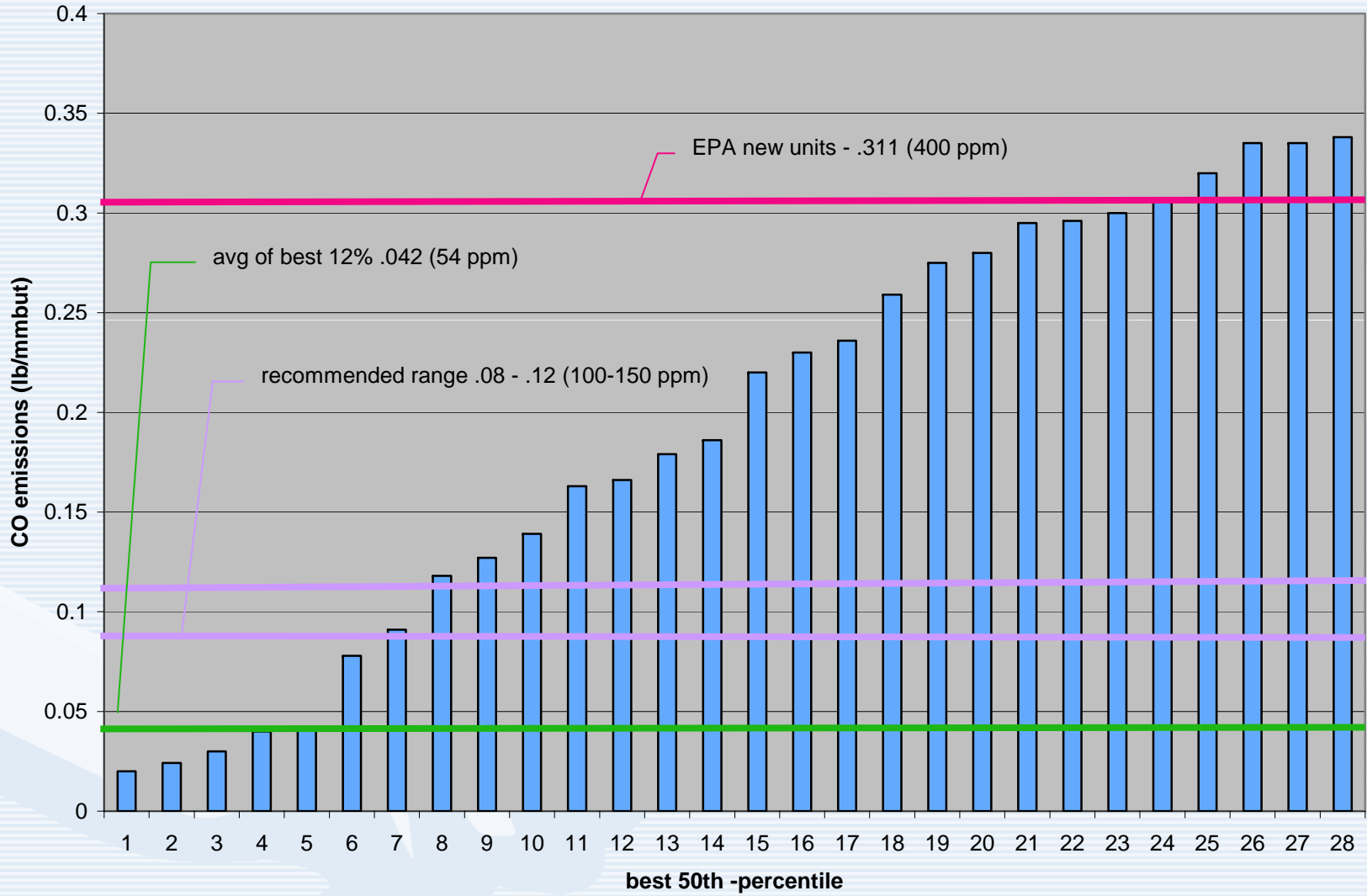
Oil Fired Boilers 50th% (CO)



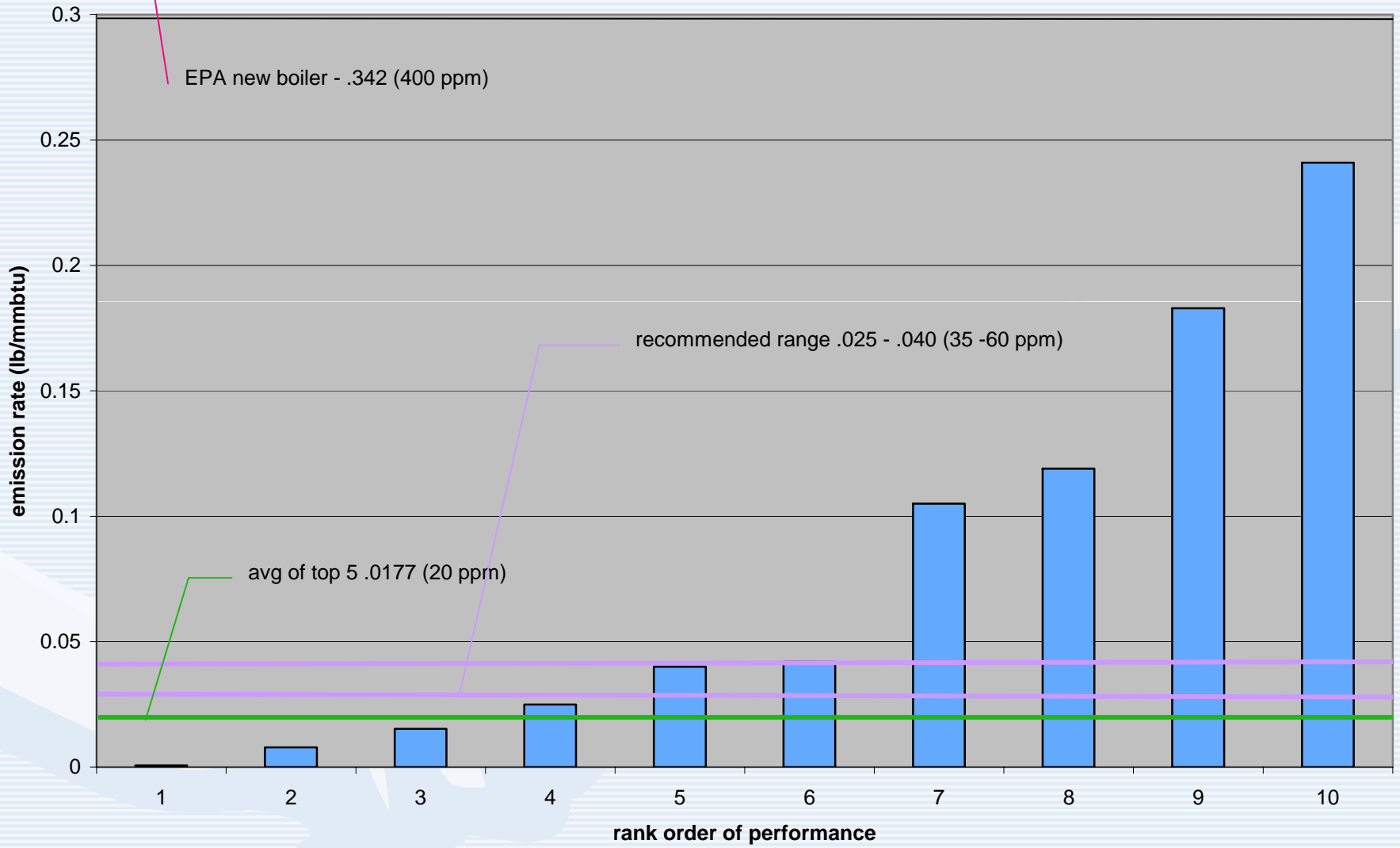
Wood fired Boilers (CO)



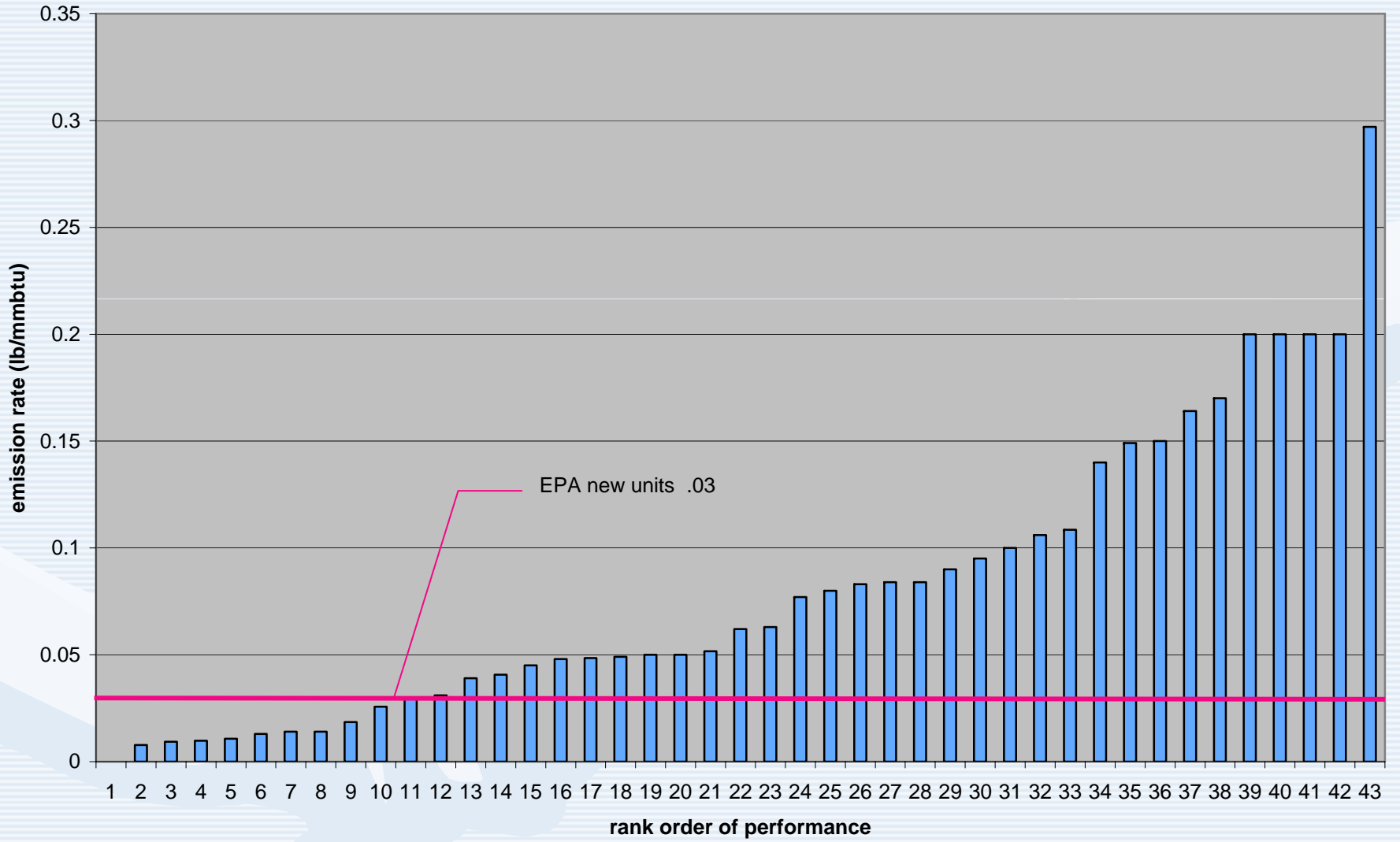
Wood Fired Boilers (50%) (CO)



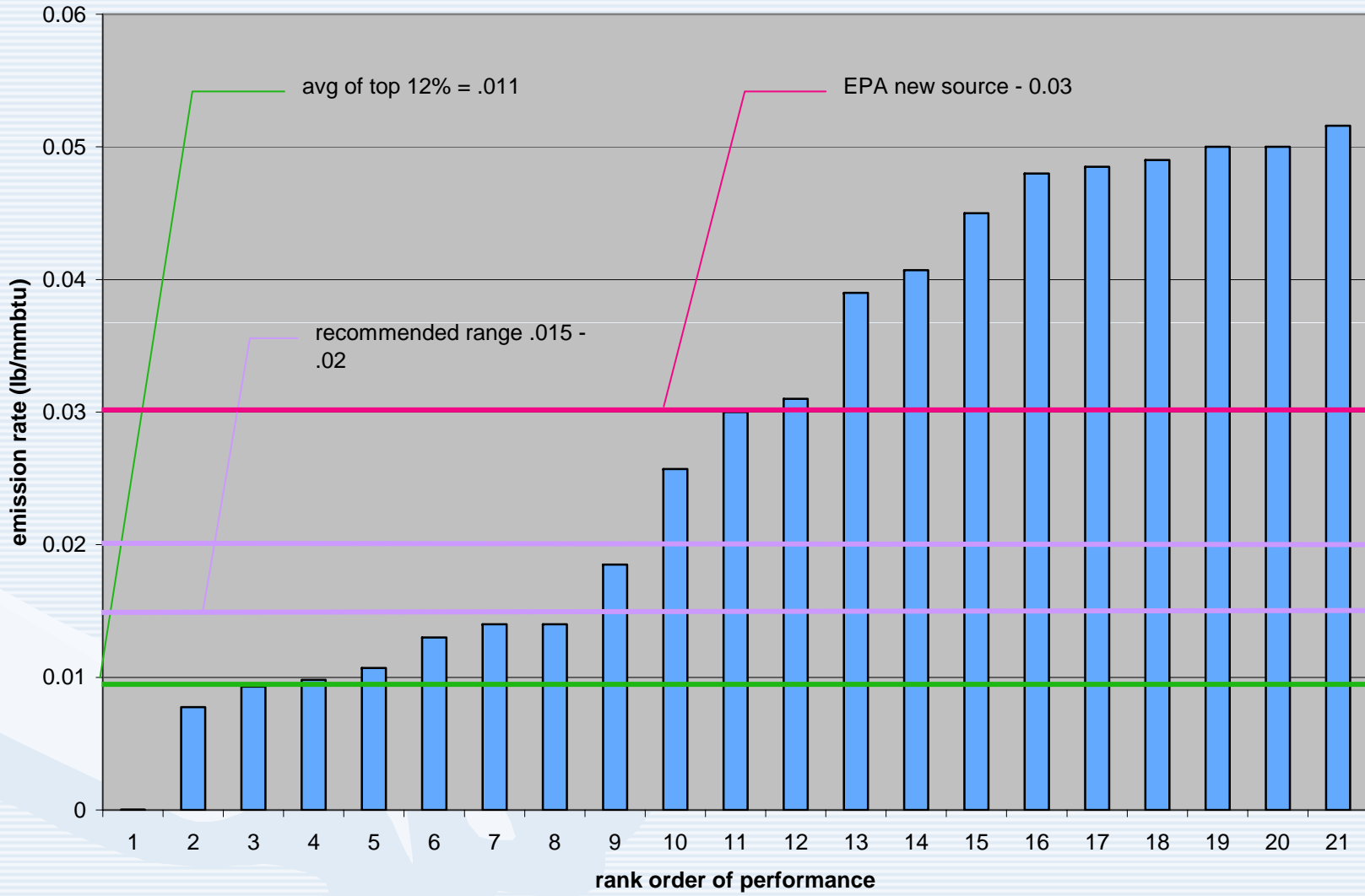
Coal fired boilers (CO)



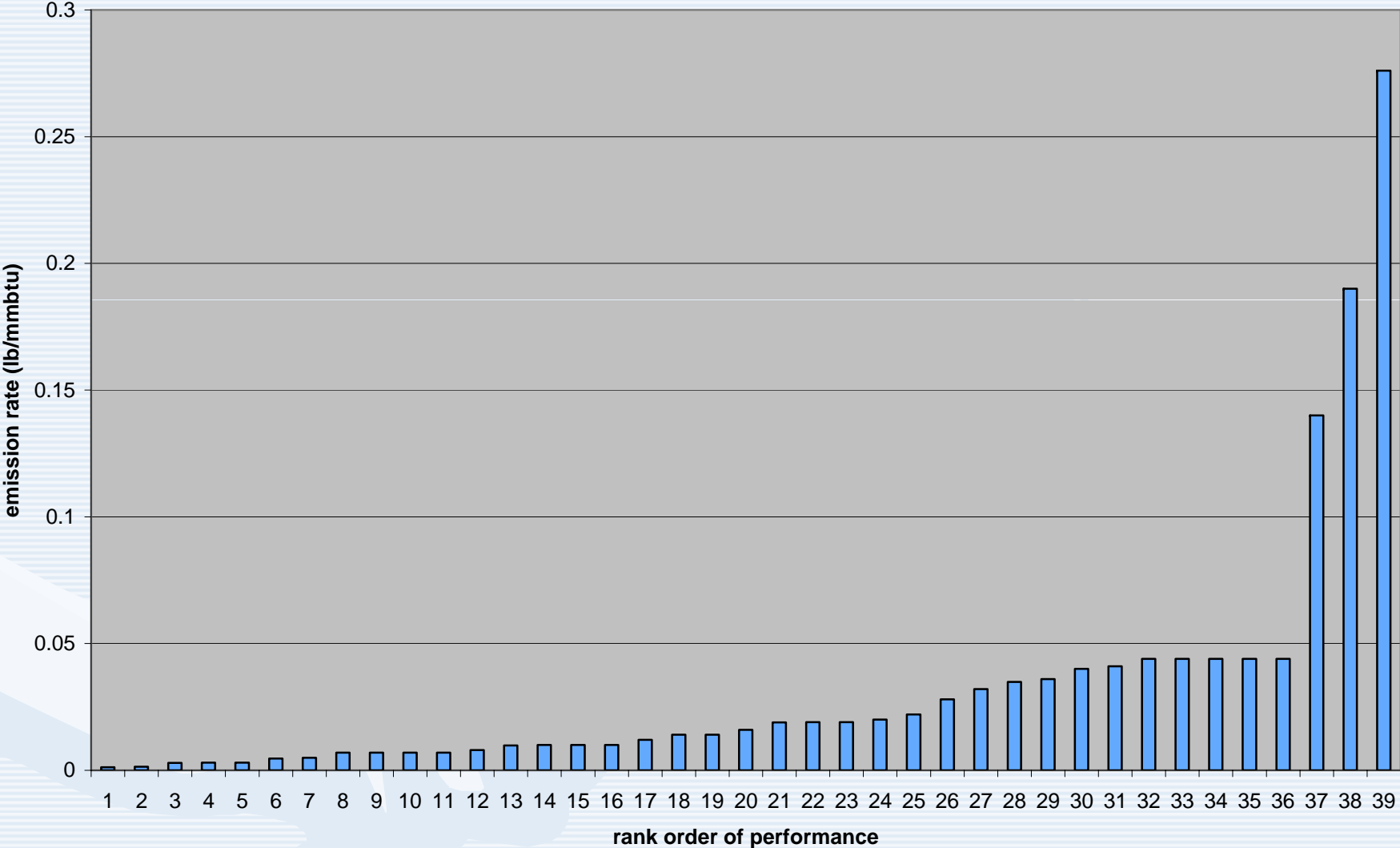
Oil Fired Boilers (PM)



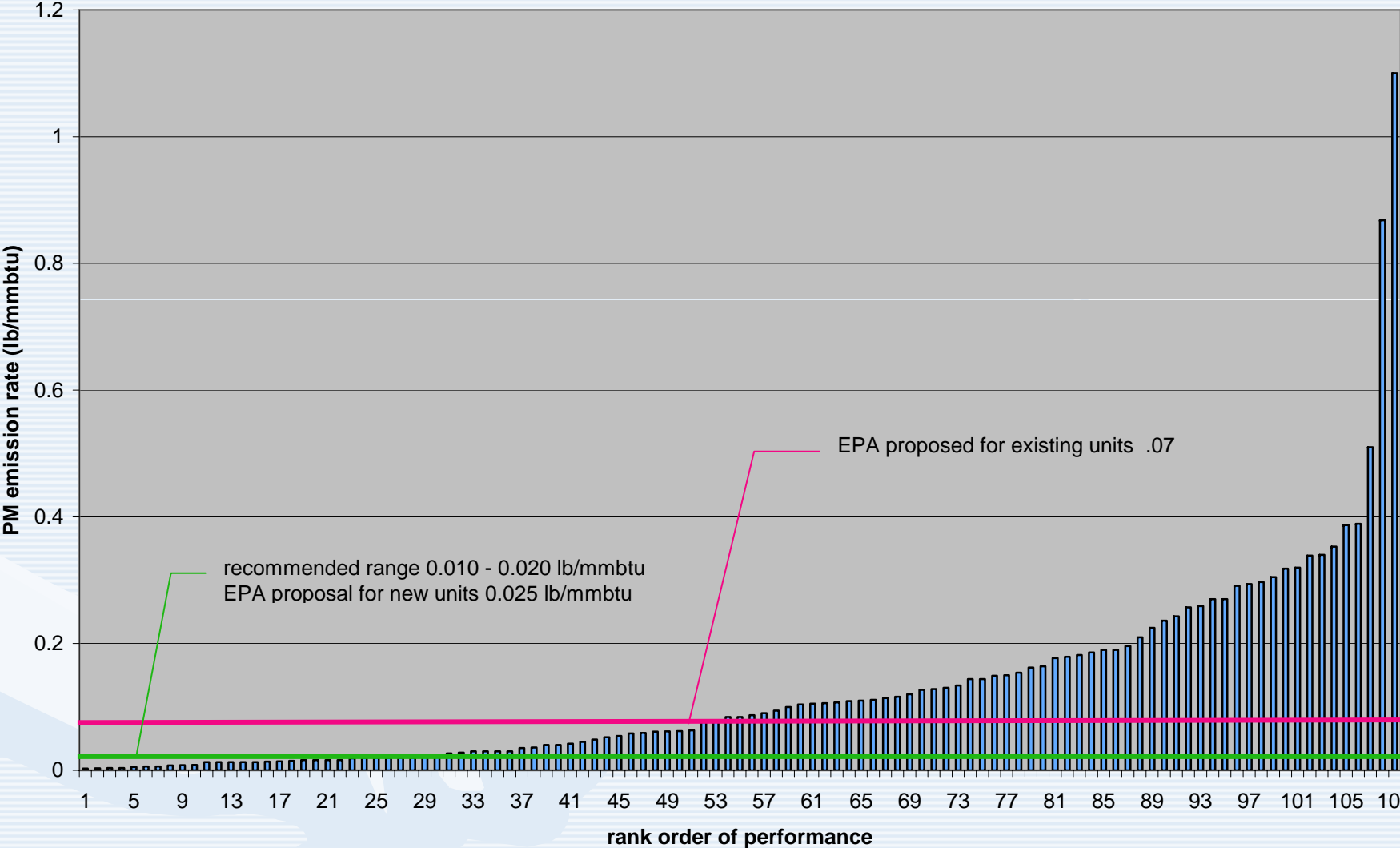
Oil Fired Boilers 50th% (PM)



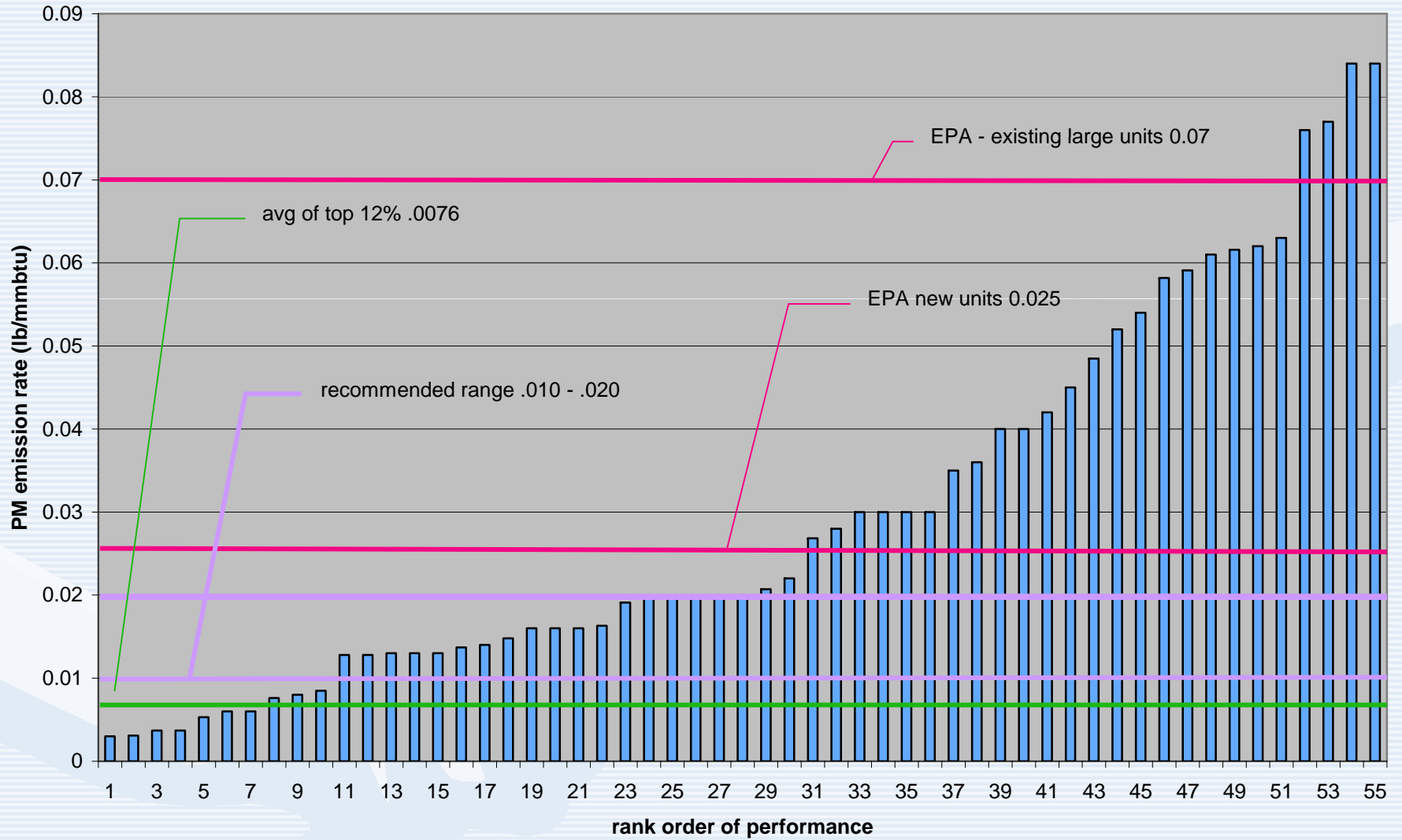
Oil Fired Boilers (PM10)



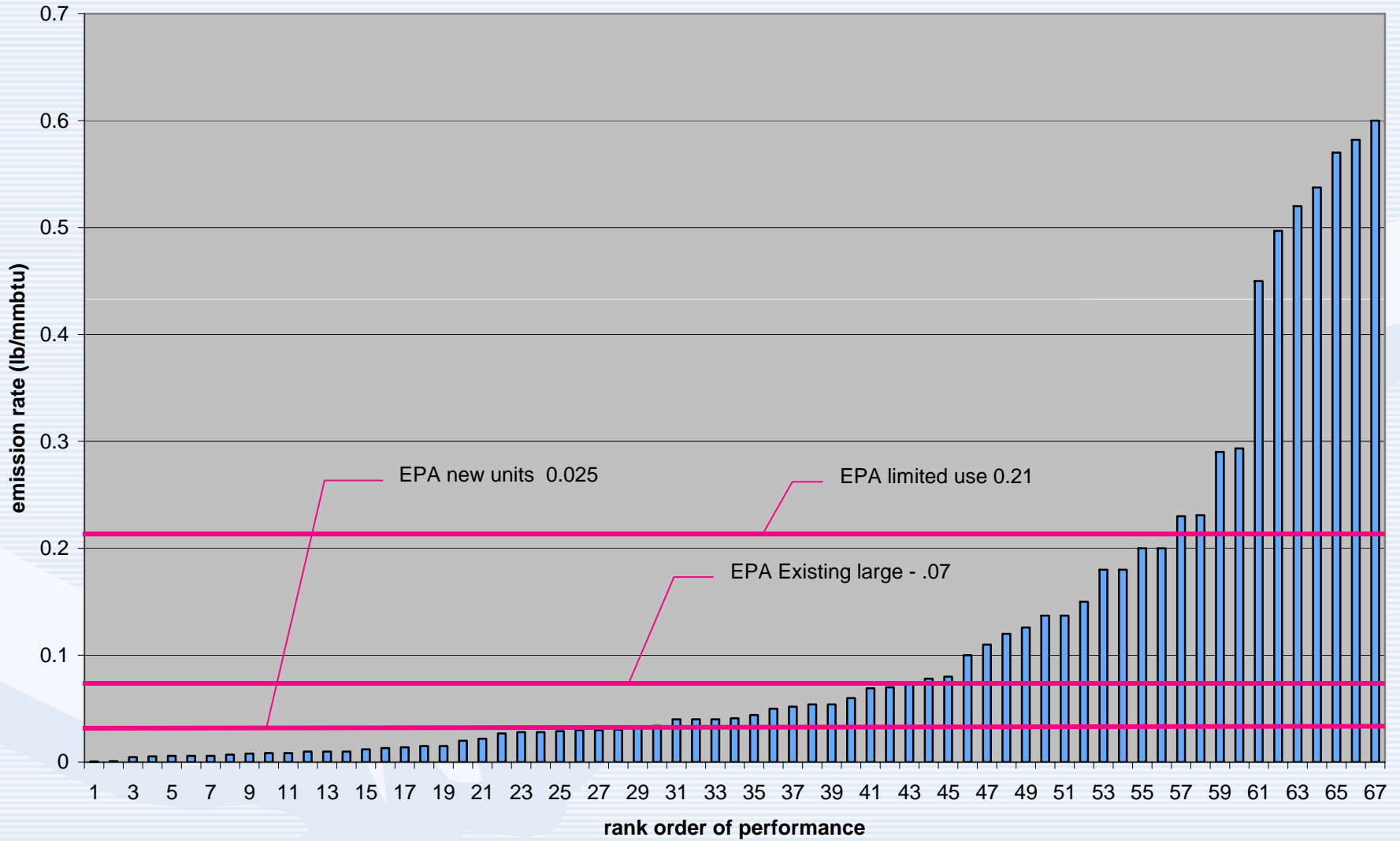
Wood fired boilers (PM)



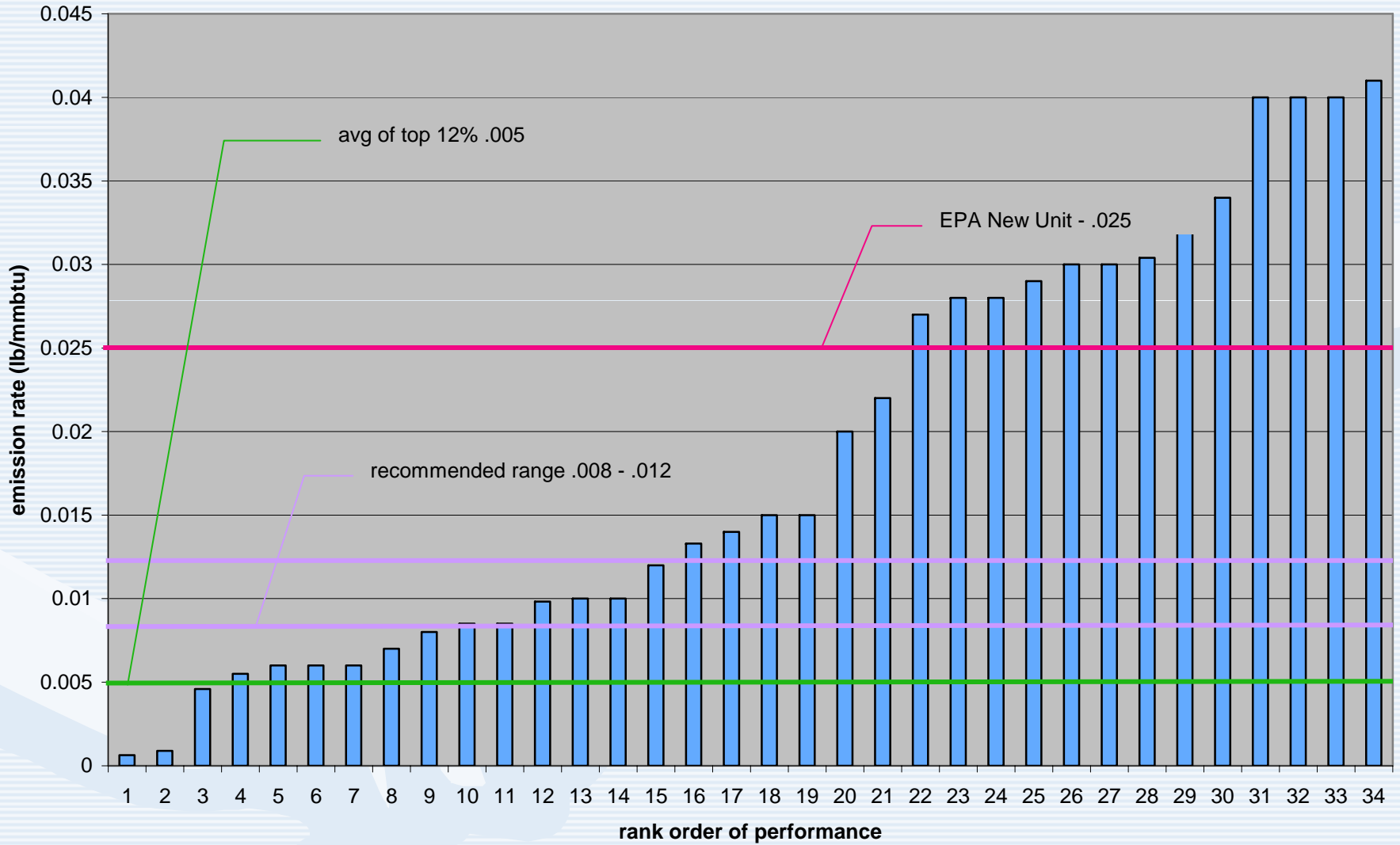
50th percentile wood (PM)



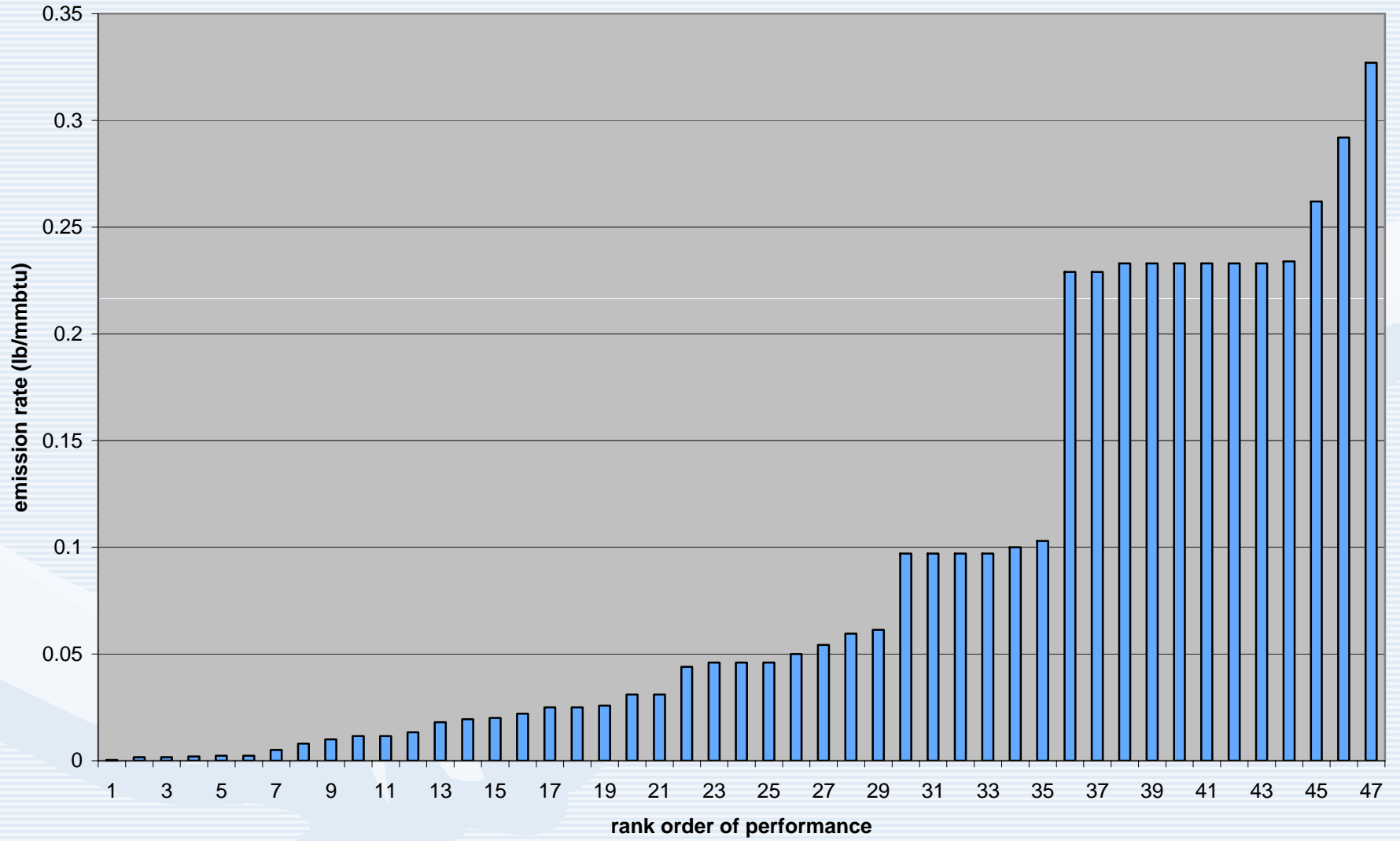
Coal Fired Boilers (PM)



Coal Fired Boilers (50%) (PM)



Coal Fired Boilers (PM10)



Other Issues

- Procedural requirements – Title V permit modification
- Monitoring – “enhanced monitoring” required, recommend tiered monitoring depending on the size of the unit and the variability of emissions, for example:
 - “type” testing for package natural gas boilers
 - continuous CO monitors for large wet wood boilers
 - parametric monitoring and CAM plans as appropriate
- Work practice requirements as applicable – e.g. annual “tune up”
- Recordkeeping – 5 years, per Title V rules
- Reporting – Per Title V rules

Industry Concerns

- Underlying data has not yet been made available to them; only representative data should be used.
- Emission limits suggested by the NACAA data set are too low – imposing such limits will cause significant economic disruption.
- CO and PM should not be used as surrogates for HAPs; at low levels there is no evidence that CO and HAPs are still correlated with HAPs.
- NACAA “compliance testing” does not reflect true operating conditions for industrial boilers.
- Standard setting must consider performance and reasonable emission variability over time.

Ongoing Activities

- QA/QC data set
- Complete review of available HCl, HF and Hg data
- Complete drafting model rule language
- Resolve all outstanding technical issues

