

Boiler Database Update And Analysis

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Survey Responders

- Total boilers that were referenced in response to inquiries for database update information was 156
 - These boilers were not affiliated with CIBO member companies. (A separate analysis is being performed on CIBO member company's boilers that will be incorporated into this analysis at a later time.)
- Out of the 156 boilers, 131 of the boilers are still active.
 - This means that 25 of the 156 boilers have been decommissioned (or 16%).
 - The remainder of this presentation will focus on the 131 still active boilers out of the 156 boiler responses.

Boiler Analysis

- With respect to item (column) Q in the updated boiler database “Combustor design”, 120 responses out of the 131 active boilers responded to this item.
 - 5 of the 120 responses indicated “PC” (pulverized coal) as the technology in use (or 4.2%).
 - 9 of the 120 responses indicated “FB” (fluidized bed) as the technology in use (or 7.5%).
 - 16 of the 120 responses indicated “Stoker” as the technology in use (or 13.3%).
 - 3 of the 120 responses indicated “Burner” as the technology in use (or 2.5%).
 - 3 of the 120 responses indicated “Packaged Boiler” as the technology in use (or 2.5%).
 - 84 of the 120 responses indicated “NA” as the technology in use (or 70%).

Boiler Analysis (continued)

- With respect to item (column) E in the updated boiler database “Utility, IPP, Industrial,...”, 65 responses out of the 131 active boilers responded to this item.
 - 11 responses indicated the boiler in question was part of a “utility” (or 17%)
 - 5 responses indicated the boiler in question was part of an “IPP (independent power producer)” (or 7.7%)
 - 12 responses indicated the boiler in question was part of an “industrial facility” (or 18.5%)
 - 3 responses indicated the boiler in question was part of a “municipal facility” (or 4.6%)
 - 6 responses listed “No” for the boiler. (This could perhaps mean that their boiler was not one of the types listed in the column heading.)
 - 28 responses were categorized as “Miscellaneous”. (Examples of such listings were “institutional non-profit utility”, “Piedmont Natural Gas”, etc. as responses to this column entry.)

Boiler Analysis (continued)

- With respect to item (column) N in the updated boiler database “Fuel category for unit”, 128 responses out of the 131 active boilers responded to this item.
 - 13 responses indicated the fuel source was “coal” (or 10.2%)
 - 81 responses indicated the fuel source was “natural gas” / Gas (or 63.3%)
 - 12 responses indicated the fuel source was “light liquid” (or 9.4%)
 - 6 responses indicated the fuel source was “heavy liquid” (or 4.7%)
 - 13 responses indicated the fuel source was “wet biomass” (or 10.2%)
 - 3 responses indicated the fuel source was “dry biomass” (or 2.3%)

Boiler Analysis (continued)

- With respect to item (column) T in the updated boiler database “Have any control devices been added in last five years? (What type and when?)”, 93 responses out of the 131 active boilers responded to this item.
 - 86 indicated that “no control device was added” (or 92.5%)
 - 1 indicated that “continuous O₂ trim controls” were added (or 1.1%)
 - 2 indicated that “dry sorbent injection controls” were added (or 2.2%)
 - 1 indicated that “dry ESP (Electrostatic Precipitator) controls” were added (or 1.1%)
 - 1 indicated that “combustion controls” were added (or 1.1%)
 - 2 listed “NA” as a response to this question (or 2.2%)

Boiler Analysis (continued)

- With respect to item (column) U in the updated boiler database “Have There Been Any Changes To The Boiler’s Operation In The Last Five Years? (What Changes?)”, the following are the results.
 - 25 out of the 156 boiler responses indicated that the boiler “Had been shut down” (or 16%)
 - Of the remaining 131 active boilers, 94 boiler responses were received.
 - 74 indicated that “no changes had occurred” (or 78.7%)
 - 6 indicated that “this was a new boiler” (or 6.4%)
 - 1 indicated that the boiler had “increased operation” (or 1.1%)
 - 2 indicated that the boilers had “decreased operation” (or 2.2%)
 - 5 indicated that they had made “fuel changes” (or 5.3%)
 - 3 indicated various miscellaneous changes, such as “operating under 112 (j) case-by-case MACT”, “rental unit that was subsequently purchased”, and “boiler controls upgraded” (or 3.2%)
 - 3 indicated “NA” (or 3.2%)

Boiler Analysis (continued)

- With respect to item (column) V in the updated boiler database “Has a 1-year compliance extension been obtained for unit”, the following are the results.
 - Of the 131 active boilers out of the 156 boiler responses, 103 responses were received.
 - 11 indicated “Yes” (or 10.7%)
 - 89 indicated “No” (or 86.4%)
 - 1 indicated that “boiler was operating under 112 (j) case by case MACT” (or 1%)
 - 2 indicated “NA” (or 1.9%)

Closing Comments

- Thank you for your attention
- Are there any questions?