Bases and Assumptions for Modeling Scenarios

- These modeling scenarios are being offered to assist in understanding the resulting environmental changes and impacts on electric power production that may result from various subcategorization options. They are not offered as endorsements of particular MACT limits. Indeed, many issues still need to be addressed before MACT floor values can be set, including possible bias in the plants selected for ICR Part III sampling and compliance issues like identifying a compliance method and an averaging time for any standard.

- The three scenarios assume that plants will have a choice of complying either with a stack limit or with an overall percentage reduction limit based on comparing mercury concentration in the coal with mercury concentration in the exit stack gas.

- Fluidized bed units have been placed into a separate subcategory for all three scenarios. IGCC units have been assumed to not fall within the definition of electric utility steam generating units. If they are electric utility steam generating units, then they should also be placed in a separate subcategory for all three scenarios.

- The second and third scenarios use subcategorization approaches similar to those described in the document prepared by Mike Geers and Claudia O'Brien entitled "Basis and Rationale for Potential Subcategorization of Coal-Fired Electric Utility Steam Generating Units."

- The stack limit was based on the level of performance achieved by the average of the best 12% of plants tested (or the average of the five best performing units for subcategories with less than 30 units). Variability was addressed by using the 95^{th} percentile values from the variability approach presented by Ralph Roberson at the December working group meeting.

- The overall reduction values were calculated by comparing emissions using the stack limits to potential emissions for the units in a given subcategory.

Modeling Scenario 1 - No Subcategorization

Subcategory	Stack Limit, lb/10^{12} Btu	Overall Reduction
ALL - non FBC	2.2	71%
FBCs	2.0	91%

Modeling Scenario 2 - Coal Rank Subcategorization

Subcategory	Stack Limit, lb/10^{12} Btu	Overall Reduction
Bituminous	2.2	73%
Subbituminous	4.2	31%
Lignite	6.5	47%
FBCs	2.0	91%

Modeling Scenario 3 - Coal Rank and Process Subcategorization

Subcategory	Stack Limit, lb/10^{12} Btu	Overall Reduction
Bituminous - Hot	3.7	55%
Bituminous - Sat.	2.2	63%
Bituminous - Wet	3.2	62%
Subbituminous	4.2	31%
Lignite	6.5	47%
FBCs	2.0	91%