

Options are available to coal-fired power plants when considering renovation of existing resources in order to meet CO and NOx emission limits?

From a technical point of view, there are three options for achieving required emission limits from existing production operations: optimize the coal pulverisers and the method of combustion to prevent excessive formation of exhaust gas at the moment of burning, i.e. in the combustion chamber.

Apply new technology for the reduction of NOx using catalytic and non-catalytic chemical reactions in exhaust gases created during current production operations.

Combine both of the above options, optimizing their synergies to achieve minimal investment/operational costs in a specified time frame.

From an economic point of view, it is important to determine how long a particular energy producer will be in operation since this also influences the suitability of possible options. The first option is an appropriate solution if we disregard producers that do not see operation going past 2020. The third option can be used for justified cases. The third option is especially valid where secondary methods are used to counter the effects of extraordinary operational transients and emission peaks when there is no technical-economical analysis of the

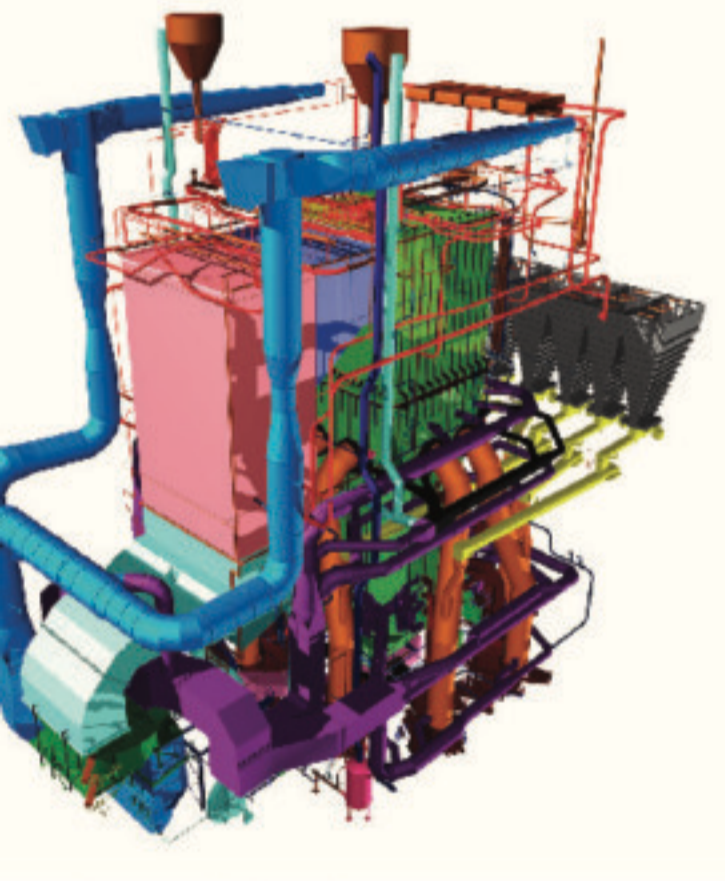


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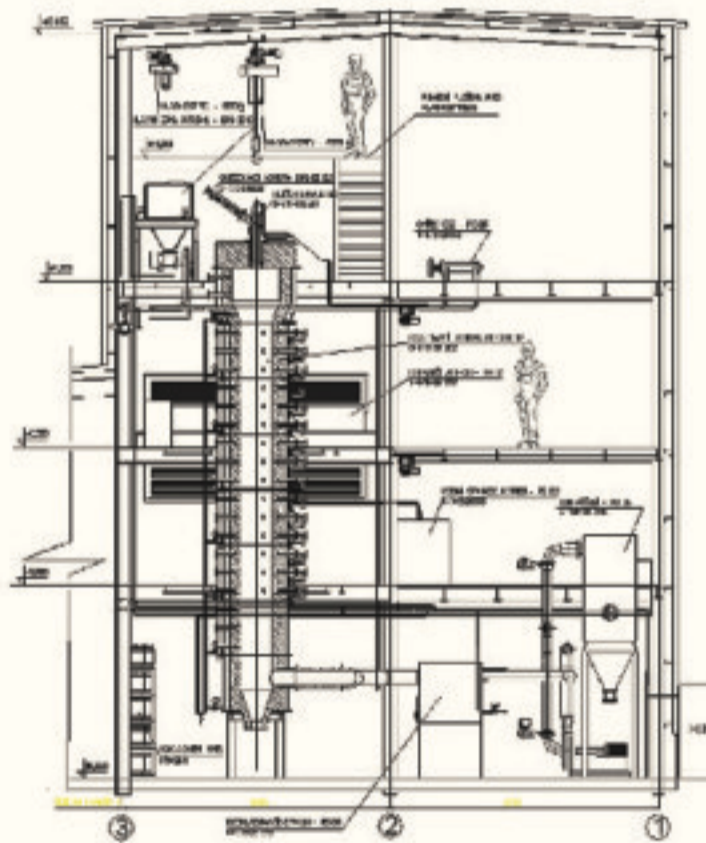
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apparent suitability and sufficiency of the individual possibilities of the first option. Secondary methods should not be continuously used, due to the operating costs of additives or catalysts, and have further emissions due to chemical reactions (e.g. nitrous oxide, ammonium compounds).

In the field of design, our company has experience in proposing primary and secondary measures.



Nov II Power Plant - Overall model



Combustion Test Stand - 2D drawing