

Recent Practices of Environmental Management in Thermal Power Plants

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Abstract

Environmental performance of an Industry has become one of the deciding factors for its survival as the violations of environmental norms are being viewed very seriously by the regulatory authorities. Proper attention should be given for management of air and water pollution as well as the wastes. Use of Indian coal mostly with high ash and low calorific value, has resulted in accumulation of huge quantities of ash in and around the thermal plants in the country. The existing air pollution control devices in the thermal power plants need up-gradation and adoption of better pollution control technologies in new areas in order to achieve the stricter emission standards. At present, utilization of fly ash, the major waste of thermal power plants, is far below the desired level in view of its huge generation. Handling and storage of unutilized fly ash at power plants have become a great concern both for the producers and regulators. Finding of techno-economically viable and environmentally compatible solution for its use has been a challenge for the scientists and technologists. An attempt has been made in this paper to emphasize the required efforts to be made for proper environmental management of thermal power plants with special reference to emission reduction from the boilers, effluent treatment, fly ash disposal / utilization and greenhouse gas emission reduction.

Key words: Coal, thermal power, fly ash, effluent, emission, pollution control, technologies, waste utilization, climate change