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Components of Steam Power Plants: An In-Depth Analysis

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Abstract: *Steam power plants are vital to the global energy landscape, converting thermal energy into electricity through a series of interconnected components. This research paper provides an in-depth analysis of the essential components of steam power plants, including boilers, turbines, generators, condensers, feedwater heaters, and pumps. Each component's functionality, design variations, and operational significance are discussed in detail. Recent technological advancements and their implications for efficiency and sustainability are also explored, emphasizing the evolving role of steam power in meeting contemporary energy demands*

Keywords: Steam power plant, thermal energy, technological advancements, efficiency

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