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Review on Fog Inlet Air Cooling System Application for Gas Turbine in High Humidity Environment*

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The main obstacle in gas turbine operation is obtaining maximum power output. The objective of this paper is purely to review what researchers have achieved so far with regards to fog inlet air cooling system and our stand on the ambiguity of the effectiveness of fog inlet air cooling system in high humidity environment in Malaysia. Only the methodology used to carry out testing and expected results will be described here as experimental data have yet to be collected. The experimental setup will consist of a gas turbine unit that will be tested with and without the installation of the fog inlet cooling and steam injection systems. The experimental result will be compared with experimental data from other researchers and power station in Malaysia that have retrofitted gas turbine with fog cooling system. Future paper will discuss on the analysis of the results obtained from this setup.

Keywords: *Gas turbine, fog, inlet air cooling, high humidity environment.*