Improving Cooling Performance of Gas Conditioning Towers/Downcomers to Reduce Plant Emissions

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The Continental Cement - Davenport plant located in Buffalo, IA produces ~3,000 tpd clinker of high quality Portland cement. The facility needed to improve their cooling capacity of their existing GCT to reduce their outlet temperature to improve Mercury (Hg) removal downstream in their process. The plant was hoping to avoid investing in a new cooling tower or purchasing expensive air compressors. The upgraded tower has been running successfully for approximately 2 years. Before and after results will be presented.