

Clarifier Bypass Service Keeps Pulp and Paper Mill Operating

Challenge

An expanding paper mill in the southeast US had to relocate a 2.5 million gallon (9,500 m³) raw water clarifier to make room for a new production facility. The clarifier serves the mill's process and utility water needs and its continuous operation is critical for the mill to meet the demand for its products. The relocation process was scheduled to take 30 days, which was far too long for the mill to be shut down. The mill investigated ways to bypass the clarifier with a temporary filtration system. However, after several internal attempts, it became clear that they would not be able to produce the effluent flow and quality needed to ensure continuous production. In addition, the mill had to ensure that all time commitments were fully met due to the strict construction deadlines for the new facility and the potential for costly delays.

Solution

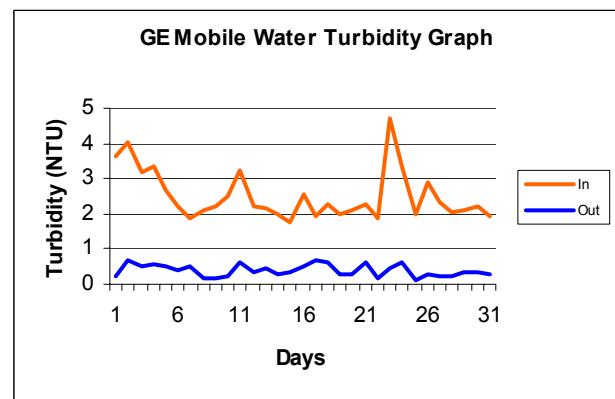
The mill selected GE Mobile Water's mobile filtration equipment. Using GE Mobile Water saved the customer the cost and issues of engineering, installing, and operating a temporary filtration system. The process required only temporary piping connections, which took only a few days to install, and bypass hoses, which GE provided and connected. In just 4 days, 15 MobileFlow* filtration trailers were staged and five diesel pumps were connected to the water plant's inlet and outlet locations. GE easily met the demand for 15 units by having the largest mobile water fleet in the world and supplying units from multiple GE service centers. The on-site GE project manager and field service technicians collaborated with the customer to ensure a smooth, uninterrupted transition from the clarifier to the MobileFlow filtration trailers. Backwashing occurred when effluent quality rose above desired quality, performed by our trained GE operations



specialists. Effluent was piped into the clear well where the customer polished it with sand filters and pumped it into the mill.

Results

During this project, the GE Mobile Water systems produced up to 6,200 gpm (23 m³/h), with consistent effluent filtered water quality at 0.7 NTU or less (even with highly fluctuating influent quality). The mill was able to fully operate without any upsets or interruption in production. The filtration trailers continued operating until the new clarifier was tested and brought on line to insure it met flow and quality specifications.



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