

Side Stream Filtration Increases Water Efficiency and Prevents Plant Failure



PROJECT SCOPE

Biomass Power Plant required filtration system to lower TSS in cooling tower and keep the plant running.

CLIENT

Biomass Power Plant

INDUSTRY SEGMENT

Power

EQUIPMENT

- 6" DV150iE pump
- 6" x 20' camlock hose
- Fittings
- BF4000 bag filtration unit
- 50 micron Filter Bags
- E-Contain® Spillguards
- Traction mats

BACKGROUND

Described in basic terms, a biomass power plant generates power by burning an organic material, like wood chips, in a boiler system. In this process, residue and debris can build up within the boiler's water and threaten the integrity of the system. A power plant managing this scenario required a temporary filtration system that would reduce TSS (total suspended solids) and increase the quality of their cooling tower water. The plant would require the system to run for up to two months in order to prevent system failure and keep the plant running.

OUTCOME

Rain for Rent designed a side stream system utilizing a 50 micron bag filtration unit and an electric pump, with plant air running the vacuum system. Utilizing an electric pump instead of a diesel pump allowed the plant's team to meet their goals of avoiding engine refueling costs and eliminating the need to obtain a permit from the County Air Quality Department. The system achieved its intended purpose of enabling the plant to remain online while cleaning and increasing the efficiency of the water.

CUSTOMER FEEDBACK

The plant has been completely satisfied with the products and services provided; they have found cost savings and dependability in their partnership with Rain for Rent who have implemented this filtration system as part of the plant's annual maintenance plan for the past three years, with a fourth installation planned for next year.



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