

Overcoming High Turbidity: Swift Response to Emergency Water Treatment Needs



Project Background

Aria Filtra® worked with an organization whose plant draws water from a nearby river. They used a pretreatment system to filter this water for a high-purity boiler feedwater pretreatment application. This system included membrane filtration, reverse osmosis, demin, and mixed bed. Their existing treatment system used ultrafiltration (UF) membranes and had a capacity of 4 MGD (3000 gpm), specifically designed to meet the filtration requirements for boiler feed applications.

The Challenge

In early 2023, a major rainstorm caused the lake upstream to become full, necessitating the release of water into the river where the organization draws its supply. This release significantly increased the turbidity of the river water.

The existing ultrafiltration (UF) water treatment system, nearing the end of its life, struggled to handle the excess turbidity. This put the plant on the verge of shutdown, as water is crucial for boiler operation.

Compounding the issue, the new membranes needed more lead time. This situation created an urgent need for an emergency bridge solution to address their immediate water treatment requirements.

Our Solution

Faced with this emergency, the organization broadly reached out to the water filtration community, seeking a solution that could be deployed and swiftly made operational. In this competitive bidding situation, performance was prioritized over cost, as plant downtime was a major concern.

The organization contacted its chemical provider to explore potential solutions. The chemical provider then included Aria Filtra and responded promptly. Trailers arrived on site within a week, and the following morning Aria Filtra began commissioning the trailers.

In April 2023, Aria Filtra deployed T80 Microfiltration trailers, effectively treating the high-turbidity water and meeting the plant's water needs. This rapid response alleviated the strain on the existing system and ensured continuous operation of the plant.

The Results

Aria Filtra helped prevent a plant shutdown by deploying trailers on time and ensuring their water needs were met.