



CLARIFY™ SCW SERIES

CASE STUDY

3 Micron Nominal String Wound



String Wound Foaming

FTC Clarify SCW Series 20 Micron Absolute



No Foaming

Challenge

A midwest U.S. nuclear power generation utility was experiencing potential unit outages because of several filtration issues. The utility was using 3 micron nominal cotton string wound cartridges in their stator cooling water process. The plant determined the filters were causing transient downstream contaminants and foaming in addition to high filter differential pressure. The filter related issues required costly maintenance monitoring activities including a pre-rinse of the string wound filters prior to being put online, additional time monitoring differential pressure on startup and additional time sampling downstream of the string wound filters to reduce transient contaminants. A proper filtration solution would eliminate these costly and timely activities.

FTC Solution

FTC performed an in-lab analysis on the current stator cooling water filters. The filters were tested for filtration efficiency, flow characteristics, pressure loss and foaming tendency. Based on the lab test results, FTC proposed replacing the string wound filters with the SCW Series 20 micron absolute-rated pleated filter cartridges. The SCW Series filter improved the efficiency, had a lower clean pressure drop and did not cause any foaming. The results were compiled, and a formal report was submitted to the utility. The facility was in an outage and needed an immediate solution. FTC was able to expedite a complete filter change-out in less than a week to meet their outage schedule.

Outcome

The SCW Series is now an approved filter at this utility. The utility no longer has to pre-rinse the filters prior to installation. In addition, the SCW Series filter has shown no foaming when in service, reduced downstream transient containments and provided a lower clean differential pressure at start-up.