

Why Perform a Cleaning Study?

Cleaning studies are an essential tool for ensuring a successful outcome when cleaning a membrane system. The use of inappropriate cleaning chemicals or an unsuitable cleaning protocol can be a waste of money and valuable time.

AWC can perform cleaning studies to identify the best cleaning protocol and most effective cleaning chemicals for a particular fouling situation. One lead element from the first stage and one tail element from the final stage are usually supplied. AWC engineers will then perform a separate cleaning study on each of the elements to determine the best cleaning pH, circulation and soak times, temperatures, and of course, the most appropriate cleaning chemicals for the foulants on the supplied membranes.

The cleaning study involves a performance test after each cleaning step, providing valuable data about the cleaning efficacy at those conditions. The performance test also provides information about membrane salt rejection and helps to identify other operating issues.

AWC guarantees that the results of a full scale CIP will be as good as those of the cleaning study so long as the same procedure and cleaning chemicals are applied.

Benefits

- All testing performed according to membrane manufacturer test conditions.
- Membranes are tested and compared to manufacturer specifications at every step of the cleaning study.
- Cleaning chemicals are selected based on suspected foulants or autopsy results where available.
- Cleaning trials are repeated until a satisfactory result is obtained.
- Non-destructive nature of cleaning study allows membrane to be put back in operation if desired.
- Cleaning study results can be duplicated at the full scale using AWC chemicals when identical cleaning procedures are followed.



Membrane performance is evaluated using a single-element test skid at each stage of the cleaning study

