

High-flow Backwashable Filtration Systems

Background

Westinghouse has provided quality products and services to the nuclear industry for more than a decade. Using this experience, and incorporating unique concepts, it has developed a high-flow backwashable filtration system that can process at high flow rates and at filter sizes to the sub-micron range. These systems provide a cost-effective way to meet diverse filtration demands.

Other systems employ single-use cartridge filters that are easily clogged and require multiple change-outs during a clean-up project. This increases the duration of the project and the radwaste volume generated. By using Westinghouse's backwashable filtration technology, filter changes are greatly minimized, which saves costs and outage time, and reduces radwaste and radiation exposure.

Description

Westinghouse's standard portable filtration system offers high flow rates. However, the system can be modified to suit lower-flow applications. The combination of backwashable filters and capabilities to meet specific customer needs makes Westinghouse's filtration systems very versatile.

The high-flow backwashable filtration system is ideal for suppression pool or fuel pool projects, and helps to maintain water clarity during underwater cutting and decommissioning evolutions.

Benefits

The Westinghouse backwash filter design offers significant advantages over traditional cartridge filtration. These advantages include:

- Compact size
- Portable skid-mounting
- Stainless steel construction
- Fully automatic operation
- Long cartridge life
- High flow capacity
- High-solids loading in backwash effluent
- Sub-micron to 100 microns
- Cost-effective operation
- Reduction of outage duration
- Ability to be modified to suit special needs
- Significant reduction of radwaste

Experience

Westinghouse has successfully used its high-flow backwashable filtration system several times in the United States.



Backwash filtration for reactor vessel internals segmentation



Backwash filtration system