

AMFM-B500 Filtration System

Background

The AMFM-B500 filtration system, developed by Dominion Engineering, Inc. (DEI) and offered by Westinghouse, makes use of all metal filter modules (AMFM) for a variety of vacuuming and filtration activities in the spent fuel pool and reactor cavity.

The AMFM-B500 filtration system includes the following components:

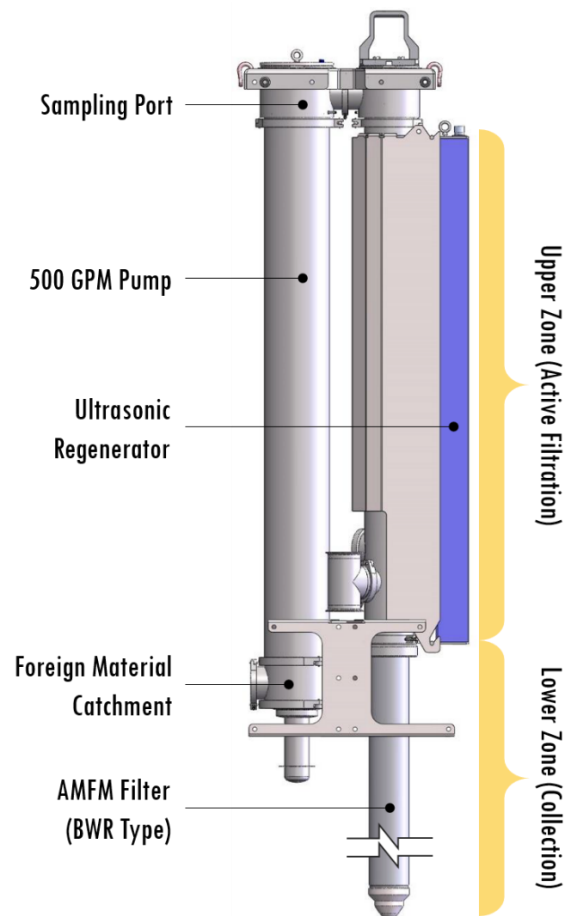
- One high capacity AMFM filter element
- One 500-gpm pump unit
- One ultrasonic regeneration unit
- Modular frame and mounting hardware (hanging-style or free-standing base)

The ultrasonic regeneration unit uses a patented process to regenerate the capacity of the AMFM many times over its long service life.

Applications

Because the AMFM can be easily moved using plant fuel handling equipment, the AMFM-B500 is a versatile tool for a variety of applications such as the following:

- Convenient replacement or supplement to the spent fuel pool purification system (decommissioning or operating units)
- General high flow filtration
- Traditional or custom vacuuming of corrosion products, foreign material and other debris (ROV, hydrovac, skimmer, underwater repairs and segmentation, guide tubes, fuel and fuel racks, and reactor vessel)



The AMFM-B500 filtration system



AMFM-B500 control unit and installation

Plant Experience and Benefits

- \$800k/year savings demonstrated with plant experience (two-unit BWR site)
- Each AMFM filter element eliminates up to 400 plastic filters and can remain in-service throughout plant life and decommissioning
- Saves outage time and reduces radiation exposure by eliminating plastic filter changeouts and management activities

Features and Specifications

- Flow rate: 500 gallons per minute (multiple modules can be used to achieve higher flow rates)
- Dry weight: 900 pounds with all components
- Electrical: Requires one 40 Ampere, 3-phase 480 Volt receptacle
- Conveniently adapts to mate with standard vacuuming tools
- Catalogue of custom attachments available (demineralization module, degas module, fuel assembly lower nozzle FME vacuum, etc.)

Experience

Westinghouse has more than 30 years of global chemical decontamination and effluent waste processing experience, supporting operating and decommissioning nuclear power plants, as well as Department of Energy and National Lab sites. Our variety of processes and systems allows Westinghouse to offer customized solutions suited to a customer's specific need.