

PARTNERSHIP TARGETS FIREFIGHTING FOAM

Shaw Air Force Base uses IX to remove PFAS from groundwater

BACKGROUND

Though highly effective at suppressing flames, firefighting foam has been linked to PFAS contamination in water sources around the globe. Its toxic impact is so severe, more than half of US states have proposed legislation that prohibits its use. Shaw Air Force Base, one of America's largest bases just outside of Sumpter, SC, has been conducting training exercises with this foam for more than 50 years. In 2019, officials launched a study to evaluate the area's water quality. The study confirmed chemical contamination, leading to the construction of a treatment facility that would remove PFAS from groundwater.



The Air Force solicited a design-build effort with the help of AECOM, a Dallas-based engineering firm with more than 47,000 employees worldwide. After reviewing proposals from treatment systems providers across the water industry, AECOM selected AqueoUS Vets® (AV®) as its partner, attracted to its powerful Concept to Commission principle. AV's unique ability to handle both the design and installation, coupled with ingenuity and industry knowledge, ensured a successful partnership for AECOM. Together, they produced a reliable ion exchange (IX) resin treatment system and resin media that remove PFAS compounds from water sources, protecting military personnel and citizens alike.

PROJECT LOCATION
Oakland, SC

PROJECT TIMEFRAME
Dec. 2019 – Dec. 2020

AV® SCOPE OF WORK
\$720,000

GENERAL CONTRACTOR
AECOM

PROJECT TYPE
Design, Manufacture,
Supply

PROJECT PHASE
Complete

END USER
US Air Force

DESIGN ENGINEER
AECOM

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AqueoUSVETS®

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PROJECT DETAILS

KEY IX SYSTEM DESIGN & OPERATIONAL PARAMETERS	VALUE
Number of Systems/Vessels per System	1/2
Operating Configuration	Parallel/Lead-Lag
Resin Capacity/Volume per Vessel	600 ft ³
Resin Type	PFAS Selective
Design Flow Rate	1,500 gpm
Hydraulic Loading	13.3 gpm/ft ²
Empty Bed Contact Time	3 Minutes
Underdrain	Septa/External Ring header
Overall System Height to Top of Pipe	16'-4"

AQUEOUS VETS® PROJECT SCOPE

AV designed, manufactured, delivered, and installed one (1) of our PF12-520 IX Systems (a 12-ft.-diameter vessel IX lead-lag pair for drinking water meeting NSF 61 standards).

