SELECTED BY CALIFORNIA WATER SERVICE

Kernville WTP for TOC Removal System

BACKGROUND

California Water Service Company (CWSC) is the largest regulated water utility west of the Mississippi River and the third largest in the United States. Formed in 1926, the San Jose-based company serves 484,900 customer connections through 28 Customer and Operations Centers throughout the state.

PROJECT DETAILS

In April 2019, CWSC sought a Granular Activated Carbon (GAC) treatment system to reduce the formation of Trihalomethanes (THM) by removing Total Organic Carbons (TOC) and improve overall water quality. Aqueous Vets® (AV®) was contracted to support CWSC through the selection of the mechanical design. Design criteria included selecting a system that provides 1) the lowest head loss, minimizing operational energy costs; 2) system geometry that provides a singular continuous internal vessel coating, managing sources of long term corrosion; and 3) an internal distribution/collection design, ensures maximum use of carbon bed. AV provided a complete package that exceeded the expectations of the water agency while offering best overall value.

PROJECT LOCATION
Kernville, CA

PROJECT TIMEFRAME
April 2019 – Nov. 2019

AV® SCOPE OF WORK
$310,000

GENERAL CONTRACTOR
W.M. Lyles

PROJECT TYPE
Design, Manufacture, Supply

PROJECT PHASE
Complete

DESIGN ENGINEER
California Water Service Company

END USER
California Water Service Company

CONTACT AV SALES
sales@aqvets.com
(925) 331-0573

AqueoUS VETS®

KEY GAC SYSTEM DESIGN & OPERATIONAL PARAMETERS	VALUE
Number of Systems/Vessels per System	1/2
Operating Configuration	Parallel/Lead-Lag
Carbon Capacity/Volume per Vessel	700 ft^3
Media Type	Bituminous
Design Flow Rate	500 gpm
Hydraulic Loading	6.4 gpm/ft^2
Empty Bed Contact Time per Vessel	10.4 Minutes
Underdrain	Septa/External Ring Header
Overall System Height to Top of Pipe	18'-0"

AQUEOUS VETS® PROJECT SCOPE

AV designed, manufactured, and delivered one (1) PF10-820 GAC Systems (10-ft. diameter vessels GAC).

AqueoUSVETS®