BlueInGreen
solutions for water quality

FACILITY PREPARES FOR PLANT EXPANSION WITH CDOX

PARKVILLE WATER TREATMENT PLANT

INTRODUCTION

In the process of planning a plant expansion project, facility managers at Missouri American Water partnered with design consultants at Black & Veatch to select and install a carbon dioxide dissolution system capable of treating the plant's current flow rate of 3.1 million gallons per day, while also preparing the facility for its future flow rate of 5 million gallons per day.

METHOD

After researching various treatment options, Black & Veatch and Missouri American Water elected to purchase BlueInGreen's CDOX® technology for use in the plant's pH adjustment process. The fully automated, skid-mounted solution is capable of delivering large quantities of carbon dioxide gas in small quantities of water, as much as 10 times less than the closest competitor, allowing Missouri American Water to reduce operational costs while improving water quality.

BLUEINGREEN'S CDOX SOLUTION HAS CUT THE RECARBONATION PROCESS FROM 20 MINUTES, AS SEEN IN CONVENTIONAL SYSTEMS, TO AS LITTLE AS 60 SECONDS.

TECHNOLOGY
CDOX

APPLICATION
Recarbonation

LOCATION
Missouri

OWNER
Missouri American Water

ENGINEER
Black & Veatch

GOALS
Precise CO_2 Delivery

Expedited Installation

Reduced Treatment Time

Retrofit Capability


Power Savings


Remote Monitoring


Precise pH Adjustment


Cost Savings

RESULTS

BlueInGreen worked closely with Black & Veatch to expedite the submittal review and approval process to accommodate Missouri American Water's schedule. Installed in May 2016, the CDOX 75 system effectively complements the softening process by stabilizing the water, preventing excess calcium carbonate deposits on the filters and throughout the distribution system. Using the most advanced carbon dioxide dissolution technology on the market, the CDOX reduced the recarbonation process from 20 minutes, as seen in conventional systems, to as little as 60 seconds.

AFTER THE FACILITY COMPLETES ITS EXPANSION, THE SAME CDOX 75 UNIT WILL BE CAPABLE OF DELIVERING 38 POUNDS PER HOUR TO TREAT THE EXPECTED 5 MILLION GALLONS PER DAY.

CONCLUSION

Delivering 24 pounds of dissolved carbon dioxide per hour, BlueInGreen's CDOX system provides recarbonation for the current peak production rate of 3.1 million gallons per day at Missouri American Water's Parkville facility. However, the same CDOX 75 unit, also capable of meeting the 38-pounds-per-hour requirement of the new facility, will be put in service as part of the new 5-million-gallons-per-day treatment process. The CDOX is expected to reduce water usage, power consumption and chemical costs both now and in the future.

Contact a BlueInGreen representative to find out how you can benefit from our water treatment solutions.

BIG

700 W. Research Center Blvd. | Ste. 1207 | Fayetteville, AR 72701

479.527.6378 | blueingreen.com