



CSWEA
Webinar
Series

Wednesday – December 18, 2024

12:00 PM to 1:00 PM

Why Are My PAOs Misbehaving? Variability of Carbon Efficiency, PAO-GAO Competition, and Biomass Fermentation?

Enhanced biological phosphorus removal (EBPR) relies on selection of polyphosphate accumulating organisms (PAOs) under anaerobic conditions which are capable of phosphorus uptake under aerobic conditions. An evolution of the EBPR process is sidestream enhanced biological phosphorus removal (S2EBPR), in which a portion of biomass is directed to a sidestream anaerobic zone for selection of PAOs and fermentative organisms capable of producing volatile fatty acids (VFAs). Operational experience has helped to inform and advance our knowledge around successful phosphorus removal performance. Troubleshooting and optimization of full scale S2EBPR facilities has led to the development of several critical factors for effective phosphorus removal, including the importance of biomass fermentation rates, the whole plant carbon balance, and potential impacts of PAO-GAO competition.

Agenda

12:00 PM - Introduction

12:05 PM – Presentation

Leon Downing | Black & Veatch

12:45 PM - Q&A with presenter

1:00 PM - Adjourn

CONTINUING EDUCATION

1.0 CEUs for Operators in Illinois, Wisconsin & Minnesota.

Operator ID/Quiz required for webinar.



1.2 PDHs for all Professional Engineers

COST

\$25 – Members (Discount Code: CSWEA)

\$35 – Non-Members

\$10 – Student (Discount Code: Student)

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PRESENTED BY:



Leon Downing

***Global Practice and Technology Leader - Nutrient Removal & Recovery
Black & Veatch***

Dr. Leon Downing is a Principal Process Engineer and Innovation Leader with Black & Veatch from Madison, Wisconsin. Downing provides technology leadership in support of Black & Veatch process engineering and applied research projects globally.