

Biological Nutrient Removal (BNR)

In

Lancaster, SC

Date: September 26, 2019 (6 contact hours)

Time: 8:30 A.M. to 4:00 P.M.

Who's presenting?

Jim Matthews: Your instructor is president of On Line Environmental, Inc. Jim is a graduate of The Citadel and has worked in plant and system operations since 1976. He holds a SC A license in Water Treatment, Biological and Physical/Chemical Wastewater Treatment. He has been teaching and assisting operators for public and private organizations for the last 32 years.

Who should attend and why?

- **Trainees** seeking more understanding of system operations and preparing for certification exams
- **Operators** preparing for advanced operator certification exams
- **Operators** wishing to improve their skills and understanding of system operations
- **Operators** seeking continuing education to be applied toward license renewal
- **Managers** seeking to improve their technical understanding
- **Anyone** wishing to further their understanding of environmental systems operations

Course Description: This **6-hour** course is designed for operators of biological wastewater treatment facilities who are required to meet nutrient limits using the activated sludge process as well as operators preparing for an advanced biological wastewater certification exam. Topics include the activated sludge process overview and process control, BNR optimum process control strategies, nitrification and denitrification, biological phosphorus removal, chemical enhancements used for nutrient removal and common process configurations used in BNR. Consideration is given to the various calculations associated with these topics.

Objectives - at the end of the course, the participant, will be able to

1. Define and describe the activated sludge (AS) process
2. List and describe the common AS process variations
3. List and describe BNR process variations and process control strategies
4. Define and describe the following processes:
 - a. Nitrification
 - b. Denitrification
 - c. Phosphorus uptake
5. List and describe chemical enhancements used for BNR
6. Perform relevant process control calculations



Please bring a calculator to class; workbooks, handouts and pens will be provided. Coffee, donuts, snacks served in the morning, lunch is provided.

A record of your attendance will be kept on file and a certificate of completion will be issued to each attendee.

Registration Fee: \$125.00 – Includes lunch

Class Location: 916 15th Street, Lancaster, SC, 29720

Contact Jim (803-240-3551) or Linda (803-240-9511) or email Jim at jmatthews@oleinc.com if you have any questions about the class.

Class Registration Form

(Must be received at least **two business days** prior to class date for workbook preparation)

Biological Nutrient Removal in Lancaster, SC, September 26, 2019: registration fee \$125.00

Name: _____ Phone: _____

Organization: _____

Billing Address: _____

City: _____ State: _____ Zip: _____

Email: _____

Payment method: Visa MasterCard Purchase Order Check enclosed

Purchase Order Number: _____ (please provide billing address above)

Additional Registrants added to this form: _____

Credit Card # _____ - _____ - _____ - _____ Expires ____/____

V-code: _____ Zip Code for credit card billing address: _____

Please email this form to jmatthews@oleinc.com You may also call 803-240-3551 or mail to our PO Box to register.

Refund Policy: A 90% refund will be given for cancellations no later than seven business days prior to the class start date. Substitutions are allowed. On Line Environmental, Inc. reserves the right to cancel or reschedule any class due to inadequate enrollment or circumstances beyond the control of the company or instructor. A full refund or class reschedule will be offered in such cases.

Registration must be made at least **2 business days** prior to start date of class to allow time for printing. Class size is limited; register early.

Contact us at:

On Line Environmental, Inc.
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