



## Maine Department of Environmental Protection

### Bureau of Land & Water Quality

#### O&M Newsletter

January 2008

A monthly newsletter for wastewater discharge licensees, treatment facility operators, and associated persons

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### Operator Certification Renewals

Certified Operators who have *even numbered* certificates will be due for renewal by March 1, 2008. Those operators will receive their renewal notices in early January. To renew your certificate, you need to show proof of at least 18 hours of approved training and pay the renewal fee of \$75.00. If you are due to renew in 2008 and do not have enough training and cannot take the required 18 hours before March 1, 2008, submit your renewal form and renewal fee before March 1<sup>st</sup>. Include a letter stating when you will be taking the training to meet the 18-hour requirement. If we do not hear from you by March 1, 2008, your certification will become inactive. If you

are the operator in responsible charge of your treatment facility, it will be illegal for you to sign the DMR or Form 49 until you reactivate your certificate.



### *For Practice*

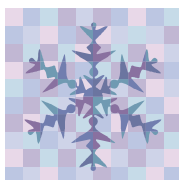
1. A new industry is planning to locate in your town and will be discharging process water to your treatment facility. You get a sample of process water from another factory that has the same pollutants in the same quantities as the water that will be come into your facility. You mix some of the sample with some of your present influent in the same ratio that you expect when the new factory comes on line. When you run an OUR test on this mixture, you note that the respiration rate decreases dramatically. This indicates:
  - a. The mixture is toxic to the mixed liquor.
  - b. The sample is over aerated.
  - c. The MLSS must be decreased to accept this waste.
  - d. The new waste may require additional aeration to stabilize.

2. Your discharge license requires you to store wastewater in your lagoon for 150 days in the winter. If you have an average influent flow of 127,500 gallons/day and a total pond area of 23.42 acres (1,020,000 sq.ft.), how much freeboard do you need in your 5 foot deep lagoon.
  - a. 0.5 ft.
  - b. 1.5 ft.
  - c. 2.5 ft.
  - d. 3.5 ft.
  
3. The term “return sludge” usually refers to sludge from:
  - a. Primary Clarifiers
  - b. Secondary Clarifiers
  - c. Aerobic Digesters
  - d. Anaerobic Digesters
  
4. Which waterborne disease is not caused by a virus?
  - a. Hepatitis
  - b. Cholera
  - c. AIDS
  - d. Smallpox

### Fall Exam Results

The results of the latest certification exam given on November 14, 2007 are in. The following is a breakdown of the pass rate for the different grade exams

Grade 1	6 of 13	46%
Grade 2	4 of 6	67%
Grade 3	4 of 8	50%
Grade 4	2 of 9	22%
Grade 5	0 of 6	0%
Grade SITS-2	3 of 3	100%
Overall	19 of 45	42%



### Approved Training

January 29 – February 26, 2008 in Hampden, Maine, VSWS & Class I Water Certification Preparatory Course – Sponsored by MRWA – Approved for 12 hours

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January 29 – February 26, 2008 in Alfred, Maine, Class II, III, & IV Water Distribution Certification Preparatory Course – Sponsored by MRWA – Approved for 12 hours

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January 30 – February 27, 2008 in Old Town, Maine, Class II, III, & IV Water Distribution Certification Preparatory Course – Sponsored by MRWA – Approved for 12 hours

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January 30 – February 27, 2008 in Sabattus, Maine, VSWS & Class I Water Certification Preparatory Course – Sponsored by MRWA – Approved for 12 hours

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January 30 – February 27, 2008 in Norway, Maine, Class II, III, & IV Water Treatment Certification Preparatory Course – Sponsored by MRWA – Approved for 16.5 hours

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January 31 – February 28, 2008 in Hinckley, Maine, Class II, III, & IV Water Treatment Certification Preparatory Course – Sponsored by MRWA – Approved for 16.5 hours

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January 27-30, 2008 in Boston MA – Annual NEWEA Conference – Sponsored by NEWEA – Approved for various hours

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February 1 – February 29, 2008 in Wiscasset, Maine, Class II, III, & IV Water Treatment Certification Preparatory Course – Sponsored by MRWA – Approved for 16.5 hours

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February 6, 2008 in Portland, ME - HDPE Piping with Practical Applications for Trenchless Technologies – Sponsored by JETCC – Approved for 6 hours

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February 26, 2008 in Lewiston, ME - Facility Management in Cold Climates – Sponsored by JETCC – Approved for 6 hours \* 6

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February 27, 2008 in Augusta, ME - Wastewater Issues Briefing – Sponsored by JETCC – Approved for 6 hours

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March 5, 2008 in Ellsworth, ME - Pump Maintenance & Troubleshooting – Sponsored by JETCC – Approved for 6 hours

March 11, 2008 in Fairfield, ME - QA/QC of Laboratory Instruments with review of General Lab QA/AC Practices – Sponsored by JETCC – Approved for 6 hours

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March 19, 2008 in Kennebunkport, ME - Why & Where to Consider Low Pressure Sewers – Sponsored by JETCC – Approved for 6 hours

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March 20, 2008 in Brewer, ME - Why & Where to Consider Low Pressure Sewers – Sponsored by JETCC – Approved for 6 hours

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March 25, 2008 in Jay, ME - Mapping for O&M, Capitol Improvements & Transition to GIS – Sponsored by JETCC – Approved for 6 hours

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April 10, 2008 in South Portland, ME - Everyday Labware with BOD Review – Sponsored by JETCC – Approved for 6 hours

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April 15, 2008 in Yarmouth, ME - Math Review – Approved for 6 hours – Sponsored by JETCC – Approved for 6 hours

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April 17, 2008 in Bangor, ME - Everyday Labware with BOD Review – Sponsored by JETCC – Approved for 6 hours

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May 22, 2008 in Orono, ME - Advanced Microsoft Excel – Sponsored by JETCC – Approved for 6 hours

Note: JETCC stands for Joint Environmental Training Coordinating Committee – PO Box 487 – Scarborough, ME 04070-0487 – Tel (207) 253-8020

Efficiency Maine is a program of the Maine Public Utilities Commission - 18 State House Station, Augusta, ME 04333-0018  
Tel: 207-287-8350

MRWA stands for Maine Rural Water Association - 14 Maine Street, Box 36 - Brunswick, ME 04011 – Tel (207) 729-6569

NEIWPC stands for New England Interstate Water Pollution Control Commission – 116 John St. – Lowell, MA 01852-1124 – Tel (978) 323-7929

NEWEA stands for New England Water Environment Association – 100 Tower Office Park, Suite K, Woburn, MA 01801 – Tel (781)939-0908

**Answers to *For Practice*:**

1. a A dramatic decrease in the respiration rate indicates that the mixed liquor is not using the new waste as food, requiring more oxygen. This usually indicates the presence of a material that is toxic to your sludge. You may have to require removal of the toxic material or your sludge may gradually acclimate itself to the new material.
  
2. c  $127,500 \text{ gal/day} * 150 \text{ days} =$   
19,125,000 gals  
 $19,125,000 \text{ gals} / 7.5 \text{ cu. ft./gal} =$   
2,550,000 cu. ft.  
 $2,550,000 \text{ cu. ft.} / 1,020,000 \text{ sq. ft.} =$   
2.5 ft of freeboard  
You would need to draw down your lagoon so that less than 2.5 feet of water remained in the lagoon at the beginning of the storage season.
  
3. b Return sludge is the settled mixed liquor containing active microorganisms which is returned to the aeration basin from the secondary clarifiers.
  
4. b Cholera is caused by a bacteria. Viruses cause all the other diseases.

*Happy 2008*