



## Maine Department of Environmental Protection

### Bureau of Land & Water Quality

#### O&M Newsletter

September 2008

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

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#### *Fall Exam*

The Fall Exam for all operator grades will be at the usual locations (Portland, Bangor and Presque Isle) on November 19, 2008. Applications will be due in to the JETCC office by October 3, 2008 or postmarked by Monday September 29, 2008.

#### *For Practice*

1. Which laboratory test should be used to analyze grit to determine the effectiveness of a grit removal system?
  - a. Percent total solids
  - b. Percent total volatile solids
  - c. Total settleable solids
  - a. Total suspended solids

2. The brake horsepower rating of an electric motor is less than the motor horsepower of the same motor because..
  - a. A motor is not 100% efficient
  - b. A pump is more efficient than a motor
  - c. A pump is not 100% efficient
  - d. The specific gravity of water is greater than 1.0
3. To determine the amount of organic material in wastewater, you should run...
  - a. the pH test
  - b. the residual chlorine test
  - c. the BOD test
  - d. the total suspended solids test
4. The best way to manage hazardous waste is...
  - a. Storage
  - b. Treatment
  - c. Disposal
  - d. Source Reduction

#### *Approved Training*

September 10, 2008 in Newport, ME – GPS?...GIS?...What Does It All Mean – Sponsored by MRWA – Approved for 3 hours

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September 11, 2008 in Gray, ME – GPS?...GIS?...What Does It All Mean – Sponsored by MRWA – Approved for 3 hours

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September 18, 2008 in Springvale, ME - Facility Managers - How to Get Started Saving Energy – Sponsored by Efficiency Maine – Approved for 4 hours

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September 25 & 26, 2008 in Newry, ME -  
MWWCA Annual Convention - Sponsored  
by MWWCA – Approved for various hours  
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September 26, 2008 in Portland, ME -  
Facility Managers - How to Get Started  
Saving Energy – Sponsored by Efficiency  
Maine – Approved for 4 hours  
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September 30, 2008 in Hampden, ME -  
Centrifugal Pumps 101: Hydraulics and  
Maintenance - Sponsored by MRWA –  
Approved for 4 hours  
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October 1, 2008 in Auburn, ME - Facility  
Managers - How to Get Started Saving  
Energy – Sponsored by Efficiency Maine –  
Approved for 4 hours  
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October 7 – November 18, 2008 in Augusta,  
ME – Basic Wastewater Treatment –  
Sponsored by JETCC – Approved for 24  
hours  
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October 7, 2008 in Lincoln, ME- Basic  
Math for Operators - Sponsored by MRWA  
– Approved for 6 hours  
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October 8, 2008 in Portland, ME – Pump  
Maintenance & Troubleshooting –  
Sponsored by JETCC – Approved for 6  
hours  
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October 9, 2008 in Fairfield, ME – Basic  
Math – Sponsored by JETCC – Approved  
for 3 hours  
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October 9, 2008 in Bath, ME - Facility  
Managers - How to Get Started Saving  
Energy – Sponsored by Efficiency Maine –  
Approved for 4 hours  
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October 15, 2008 in Farmington, ME -  
Facility Managers - How to Get Started  
Saving Energy – Sponsored by Efficiency  
Maine – Approved for 4 hours

October 16, 2008 in Fairfield, ME – Process  
Control Math – Sponsored by JETCC –  
Approved for 3 hours  
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October 21-23, 2008 in Yarmouth, ME –  
Operation & Maintenance of Collection  
Systems – Sponsored by JETCC – Approved  
for 6 hours  
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October 22, 2008 in Presque Isle, ME –  
BOD Review and Use of Luminescent DO  
Probes – Sponsored by JETCC – Approved  
for 6 hours  
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October 22, 2008 in Bangor, ME - Facility  
Managers - How to Get Started Saving  
Energy – Sponsored by Efficiency Maine –  
Approved for 4 hours  
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October 22, 2008 in Caribou, ME –  
Budgeting for Maximum Information -  
Sponsored by MRWA – Approved for 4  
hours  
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## **Revisions to DEP’s Septage Rules for Treatment Facilities**

DEP is in the process of updating Chapter 555 of its rules, “Standards for the Addition of Septage to Wastewater Treatment Facilities. Last amended in 1989, this rule has been largely applicable to municipal treatment facilities that want to accept trucked-in wastes from septic tanks, cesspools and other similar sources. While the rule is not regarded as seriously “broken” some facilities want to accept more volumes of wastes than the rule presently allows, and since the rule has not been revised in nearly 20 years, this is a good opportunity for the Department to review and update it. Chapter 555 now limits the amount of septage that can be received to not more than 1% of a treatment plant’s design flow.

In preparation for rule making, the Department has convened an advisory group and conducted a survey of treatment plants currently receiving septage. Some 30 facilities responded to DEP's survey, with 70% reporting that the demand for septage disposal at their facilities as stable. Another 17% did anticipate an increasing demand. Most thought that increasing the allowance to 2% of the of the facility's design capacity would be sufficient to meet future needs.

Some facilities have experienced problems with odors, traffic sludge quality and process control upsets. Septic tank wastes, or other types of trucked-in wastes for that matter, can be very high strength and potentially cause these or other problems if not handled carefully. Additionally, high-strength wastes can quickly eat up plant capacities for treatment, holding or solids handling.

After meetings with the advisory group and other interested parties, DEP is preparing a revised Chapter 555 that will ultimately be considered by the Board of Environmental Protection as a replacement for the existing rule. Some of the more significant changes under consideration include the following.

\*The scope is changed to include all trucked wastes, not just septage. This would bring all wastes with characteristics significantly different than a facility's normal influent under the rule. It is recognized that some non-municipal plants may receive trucked wastes.

\*New definitions are added for "transported wastes" to replace "septage" and for "side stream treatment". Side stream treatment management methods are important alternatives to adding wastes directly into a facility's influent flow and include

holding tanks, chemical conditioning or solids dewatering systems.

\*The proposal would prohibit receipt of transported wastes in certain plants that categorically would be impacted by high-strength wastes. Such plants are those with a capacity of less than 0.1 mgd; those with only primary treatment (the "301(h)" plants); and those with alternate to secondary effluent limits.

\*The criteria for approval are changed to place more focus on pollutant loadings. In doing this, a rebuttable presumption for waste strengths and three levels for approval are proposed. These levels are less than 0.5% of design capacity without any side stream treatment; up to 1.0% when some side stream treatment is used; and over 1.0% of capacity. The upper tier is a case by case evaluation rather than a fixed amount. For this tier, more detailed application materials would be needed and there would be greater technical review.

\*The criteria for addition of wastes are expanded and more detailed. Most of the items are from the old rule or standard license conditions.

Preliminary information on the Department's proposals can be found on the web site at [www.maine.gov/dep/blwq/rule.htm](http://www.maine.gov/dep/blwq/rule.htm) or by contacting Dennis Merrill at 287-7788.

The Department hopes to submit the proposed rule to the BEP in October, with a recommendation that a public hear be scheduled, probably in November. As the rulemaking process begins, more information will be available on the Board's web site at [www.maine.gov/dep/bep](http://www.maine.gov/dep/bep).

*Dennis Merrill*

### **Answers to *For Practice*:**

1. b If the total volatile solids is high, the grit chamber is removing too much settleable material. Grit chambers should remove mostly non-volatile solids. Volatile solids are normally less dense than non-volatile solids and should not settle in the grit chamber.
2. a No motor can convert all of the electrical energy input to mechanical energy output. Some of the energy is lost to heat and is not available to do the work of the pump, moving a fluid against a pressure head.
3. c The BOD test is the best of the listed methods to determine the amount of organic matter in a water sample. Bacteria will use the organic matter as food and consume oxygen. By measuring the amount of oxygen used, you can estimate the amount of organic matter present.
4. d Reducing the amount of hazardous material used in a process is always better than having to handle, treat and dispose of that material.

