



Maine Department of Environmental Protection

Bureau of Land & Water Quality

O&M Newsletter

July 2007

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



If you missed the Spring exam, the next exam will be given on November, 14, 2007. The deadline for mailing your application is September 14, 2007 or hand deliver it to JETCC by September 28, 2007.

IDEXX Colilert Training session

Please Join the MWWCA lab committee for an IDEXX Colilert Tech Session on July 19, 2007 at 1:00pm in the conference room at the Augusta Sanitary District Treatment Plant, 33 Jackson Avenue, Augusta, Maine.

Bring any and all questions and comments on the Colilert method as Gil Dichter from IDEXX will be here to explain everything. If you currently use Colilert or are considering this method please join us!

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Spring & Fall 2007 Exams

The results from the spring exam are in. If you took the exam in May, you should have received the results by now. If you haven't heard from us, please contact JETCC at 253-8020.

For Practice

1. A circular clarifier treats a flow of 1,250,000 gpd with a influent suspended solids of 2,050 mg/L. The diameter is 50 feet and the depth is 14 feet. What is the solids loading?
 - a. 8.2 lb/day/sq. ft.
 - b. 10.9 lb/day/sq. ft.
 - c. 12.0 lb/day/sq. ft.
 - a. 13.6 lb/day/sq. ft.
2. A large number of filamentous bacteria in an activated sludge system may:
 - a. Cause foaming in the aeration basins or clarifiers.
 - b. Cause poor settling and loss of solids to the receiving waters.
 - c. Result from a toxic shock to the system
 - d. All of the above
3. The age of the sludge in and activated sludge facility affects the dewaterability as follows:
 - a. Older sludge is harder to dewater.
 - b. Younger sludge is easier to dewater.
 - c. Younger sludge is harder to dewater.
 - d. Sludge age has no effect on dewaterability.
4. One horsepower is equivalent to
 - a. 378.2 joules
 - b. 0.75 amps at a voltage of 220
 - c. 746 watts
 - d. 1,000 megahertz

DEP's Water Enforcement Process

The Department of Environmental Protection was established to "...prevent, abate and control pollution of the air, water and land and (to) preserve, improve and prevent diminution of the natural environment of the State." DEP's Water Enforcement Unit has a combined total of 74 years working at the Department and consists of Section Head Dennis Merrill and staffers Chuck Rossoll, Phil Garwood and John Glowa. The unit is part of the Division of Water Quality Management. Most Mainers, and indeed, most waste discharge licensees never meet DEP water enforcement staff. They do, however, benefit from the work that we do every time they swim in a lake or ocean, put a boat in the water, or cast a fishing line. Most Mainers will never directly participate in the Department's water enforcement process. They assume that someone from government is on the job looking out for the environment and for their own health and safety.

Since problems warranting enforcement action may be complicated, DEP's water enforcement process can be detailed and time consuming. It can also move quickly when necessary, such as when public health or the environment is harmed or in imminent danger. The enforcement process must be responsive, but it must also be fair. It must treat all equally and must not allow those who flout environmental laws to benefit or to have an unfair competitive advantage. It must also provide an effective deterrent to those who would see violating the law as otherwise acceptable, and it is important to create a "level playing

field” for all those who voluntarily comply.

The Water Enforcement Unit receives cases involving both licensed and unlicensed discharges in a number of different ways. We may observe a problem first hand during a sanitary survey or site visit. We may receive a complaint from a citizen, public official or other DEP staff. Problems with licensed discharges may be referred to water enforcement by the DEP’s Non-Compliance Review (NCR) Committee that meets monthly to review non-compliance for all licensed dischargers. The NCR Committee is comprised of the Director of the DWQM, the section heads for licensing, compliance and enforcement, and the lead inspectors in the Portland, Augusta, Bangor and Presque Isle regions.

As a general rule, the first step in dealing with non compliance is to attempt to gain voluntary compliance. Most violations are resolved voluntarily without formal enforcement action or a penalty. Those violations that are not voluntarily resolved as well as those violations that are particularly serious are dealt with through the formal enforcement process. In addition to incidents involving actual discharges to the environment, emphasis is also given to problems that support integrity of DEP’s regulatory programs. These may include reporting or testing requirements or narrative conditions in permits.

The enforcement process is progressive and may begin with a Letter of Warning which identifies the violation(s) and may contain a schedule for coming into compliance for violations that are relatively minor and where further enforcement action is not

anticipated if the problem is voluntarily corrected. For more serious or numerous violations, a Notice of Violation (NOV) may be sent which formally notifies a violator of the specific violations and prescribes corrective actions. The purpose of the NOV is to formally put a person on notice that violations have been committed. If the problem is satisfactorily addressed, the NOV may be the end of the process. Regardless of whether or not the problem has been corrected, however, and depending on the circumstances of each individual case, the Department may issue an Administrative Consent Agreement and Enforcement Order (CA). The proposed CA is more formal than the NOV and also contains a list of alleged violations and may contain a more detailed list of corrective actions as well as a proposed penalty. The CA is a negotiated settlement between the violator and the Department. If both parties are able to agree on a final document, the CA is signed and then placed on the docket for the Board of Environmental Protection (BEP) for a vote. There is a minimum thirty (30) day public comment period from the time the signed CA is posted for public notice until it is voted on by the BEP. If it is approved by the BEP, it is then approved by the Department of Attorney General and it becomes a legally enforceable document. If the person and the Department are unable to reach agreement on a final CA, the matter will be referred to DEP attorneys and/or the Attorney General for prosecution in either District or Superior Court. In some cases, the EPA may assume the lead for further action.

In closing, the bottom line is that except for the most egregious cases, formal enforcement action generally occurs only after the Department attempts to achieve voluntary compliance. If we work together, we will not only keep Maine's waters clean, we will all reap the benefits of a healthy environment. Additional information on the Department's enforcement program can be found at <http://www.maine.gov/dep/enforcement.htm>



***Submitted by John Glowa
Water Enforcement Unit***

Answers to *For Practice*:

1. b The solids loading to the clarifier is calculated by Flow %
Concentration % 8.34
 $1.25 \text{ MGD} \times 2050 \text{ mg/L} \times 8.38 = 21,371 \text{ lb/day}$
The area of the clarifier is calculated by Diameter² % 0.785
 $50 \times 50 \times 0.785 = 1,966 \text{ sq. ft.}$
The clarifier solids loading is calculated by dividing the solids loading by the surface area.
 $21,371 \text{ lb/day} \div 1,966 \text{ sq. ft} = 10.9 \text{ lb/day/sq. ft.}$
2. d Filamentous bacteria can cause foaming (*Nocardia*) and poor settling (*S. Natans*) and can result from a toxic shock to the system.
3. c As a rule of thumb, young sludge forms looser flocs which hold more bound water and are, therefore, harder to dewater.
4. c One horsepower is equal to 746 watts or 0.746 kilowatts.