



Department of
Environmental Protection
Bureau of Land & Water Quality Feb.2000

O&M Newsletter

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

EPA DMR QA Study # 20 Update.

The most recent information I have from the EPA on QA Study #20 is that the schedule has not been finalized yet. The EPA has informally proposed an April 24, 2000 date for mailing the study announcement letters out to participants. This date has not been finalized. However, it does indicate that it will be some time before you receive any instructions on how and when to order your QA samples and on how to report your test results.

Please, remember that this Study is going to be different from previous ones. In Study # 20 participants will choose which NIST approved lab[s] to order their "chemistry" type samples from and will pay for the cost of these samples themselves. Last fall, the EPA sent you a list of NIST approved labs that you can choose from. There may be a few more labs added to the approved list by the time you have to order samples. I am sure the EPA will provide an updated list when the study starts. The "toxicity" side of the study will remain essentially unchanged. The EPA will still provide these samples without cost.

Please await the announcement letter from the EPA. It might be premature to order your samples at this time. However, it might pay to start shopping around for the best deal with an approved sample provider lab at this time, while still keeping in mind that a few more labs might be added to the list in the near future. Please call me at 287-7659 if you have any additional questions.

[David Dodge]

For Practice

1. The term Chlorine Residual means
 - a. The chlorine remaining in the actual discharge to the receiving water.
 - b. The amount of chlorine offset by the addition of sodium bisulfite
 - c. The amount of chlorine added to achieve a certain concentration in the effluent before it goes to the contact tank.
 - d. The chlorine dosage required to kill all the coliform bacteria present.
2. Given the following data, how much sludge should be wasted?

Plant flow	250,000 gallons/day
Current MLSS	2856 mg/L

March 7, 2000 in Augusta, ME, Water Bureau Issues briefing – approved for 6 hours, sponsored by JETCC (207) 767-2649

March 9, 2000 in Presque Isle, ME, Biosolids Utilization- approved for 5 hours, sponsored by Maine Rural Water (207) 729-6569.

March 16, 2000 in Augusta, ME, Preliminary Treatment Options – approved for 6 hours, sponsored by JETCC (207) 767-2649

March 22, 2000 in Presque Isle, ME, Troubleshooting Activated Sludge – approved for 6 hours, sponsored by JETCC (207) 767-2649

April 4, 2000 in Waterville, ME, Polymer Sealant Repair & P.M. Systems – approved for 6 hours, sponsored by JETCC (207) 767-2649

April 10 & 11, 2000 in Hinkley(SAPPI - S.D. Warren Mill), Basic Identification of Filamentous Organisms in Activated Sludge – approved for 12 hours, sponsored by JETCC (207) 767-2649

April 12, 2000 in Bangor, ME, Living with the New Biosolids Regulations – approved for 6 hours, sponsored by JETCC (207) 767-2649

April 28, 2000 in South Portland, ME, Basic Chemistry for Plant Personnel – approved for 6 hours, sponsored by JETCC (207) 767-2649

May 17, 2000 in Skowhegan, ME, Troubleshooting Activated Sludge – approved for 6 hours, sponsored by JETCC (207) 767-2649

May 23, 2000 in Portland, ME, Using Computerized Databases in the WWTP – approved for 6 hours, sponsored by JETCC (207) 767-2649

Answers to *For Practice*:

1. a. The term Chlorine residual means the concentration of chlorine in the water actually discharged to the receiving stream, whether a dechlorinating agent like sodium bisulfite as been added or not.
2. c. Pounds of Sludge to Waste =
$$\frac{(\text{Actual MLSS} - \text{Target MLSS}) * \text{Aeration Basin Volume} * 8.34}{}$$

Solve using the data given:
Pounds To Waste = $(2856 - 2700) * 0.13 \text{ MG} * 8.34 = 169$ pounds

Determine the gallons to be wasted: Gallons wasted =
$$\frac{(\text{pounds wasted} * 1,000,000)}{(\text{waste sludge concentration} * 8.34)}$$

Gallons Wasted = $(169 * 1,000,000) / (8200 * 8.34) = 2,473$ gallons
3. d. Capillary thermometers should always be checked for leaks.
4. b. A good way to motivate employees it to praise them publicly for a good job abd criticize them privately for poor performance