Lecture No 1: Overview of Biosolids Management: Characteristics, Processing, Utilization, and Regulatory Considerations

The purpose of this lecture is to provide the student with an introductory overview of biosolids management. A detailed discussion of each of these topics will be covered in subsequent lectures. When the student completes this series of 8 lectures, they will have the understanding of the theoretical and practical issues of biosolids. This will enable them to participate in a meaningful way in the preparation of a biosolids management plan for any Wastewater Treatment Plant (WWTP) in the country.

KEY POINTS OF THE LECTURE

- Biosolids management consumes a significant portion of a WWTP's budget and operational personnel.
- Biosolids properties vary widely from plant to plant and even during processing within the same plant.
- Biosolids management has a significant public interface that is not common to other unit processes at a WWTP.
- The real options for ultimate disposal/use of biosolids are **very** limited.
- Biosolids have a complex set of regulatory constraints that when understood help reinforce the important considerations of biosolids management.
- Biosolids are entering a new era, associated with energy reuse and the renewable nature of the product.

COURSE OUTLINE OF LECTURES

1.0 INTRODUCTION & PURPOSE

2.0 CHARACTERISTICS
- 2.1 Quantity
- 2.2 Quality
- 2.3 Types of biosolids

3.0 REGULATRY CONSIDERSATIONS
- 3.1 State Regulations
- 3.2 EPA Regulations

4.0 UTILIZATION

5.0 PROCESSING
- 5.1 Thickening/Dewatering
- 5.2 Stabilization
- 5.3 Transport

6.0 PUBLIC ACCEPTANCE

READING ASSIGNMENT FOR NEXT LECTURE

Handouts:
Volume 4, 2nd Edition, Municipal Sewage Sludge Management: A Reference Text on Processing, Utilization, and Disposal: pp113-117; 124-131; 170-175

MOP 8 Volume 1: pp 484-487

HOMEWORK

None! Enjoy it while it lasts!