

Life Science Facilities Biological Waste Management: Laboratory and Research Farms

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There are a variety of approaches to handling waste considerations from carcasses, solid, and liquid waste in a biocontainment setting. Large animals present unique challenges related to physical safety, decontamination compliance, sharps, and solid waste management. This course will cover waste management in a large containment facility including the basics of effluent decontamination and alkaline hydrolysis and incineration. Validation of each of these processes will also be discussed especially related to the differences in validation of a steam-based process compared to a chemical cycle. While there are certain aspects of this class that will involve engineering discussions, this course is intended to be an overview of the systems currently utilized throughout industry. Case studies will be presented as examples of some of the issues facilities may encounter during system selection and validation.

Objectives:

- Paraphrase the types of effluent decontamination and tissue digestion systems and the validation process for each type
- Describe how biocontainment design affects waste management both with small and large animals
- Identify lessons learned from case studies and apply them to their own facility if applicable