

## **2023 Canadian Biosafety Symposium – Pre-Symposium Workshop**

**Title: Connecting Biosafety, Facilities Design, and Operations & Maintenance**

**Length:** 8hrs

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### **Course Description:**

This course is aimed at enhancing safety and risk management at biocontainment facilities by strengthening the link between Biosafety, Laboratory Management and facilities design. Reinforcing these core functions which drive maintenance and operation of high containment facilities will help biosafety professionals understand how facility design can support overall biocontainment operations. Through a mixture of presentations and actual examples and lessons learned from experts in the field and interactive exercises, participants will reinforce their knowledge of discrete facility system function and ways individual systems complement each other holistically in new and operating biocontainment facilities. Participants will also gain practical knowledge of related facility issues (e.g., facility design, maintenance, and performance verification) and their roles in them. The target audience for the course is biosafety professionals, lab managers and new facility owners who come with backgrounds other than facilities, and it is open to both newcomers and seasoned veterans in biosafety.

Section 1 of this course will familiarize participants with the concepts and operation of biosafety related facility components and infrastructure.

- The role of biosafety personnel in biocontainment facility design, renovation, and operations
- Understanding design drawings and related construction documents
- The relationship of facility features to biosafety level
- The role of directional airflow in biocontainment
- Security, operations, and biosafety

Section 2 of this course will focus on specific infrastructure, equipment, and systems related to operation of a biocontainment facility.

- HVAC components and their function relative to biocontainment
- Autoclave function & associated facility infrastructure
- Waste management – solid and liquid
- Room decontamination
- Interactions between facilities and containment equipment e.g., biological safety cabinets
- Specialty high-containment equipment and facility features
- Annual performance verification
- Integrating O&M and Biosafety personnel for successful operations
- Lessons learned in biocontainment facility design, construction and operation

### **Learning Objectives:**

- Participants will gain practical knowledge of facility issues (e.g., design, maintenance, and performance verification) and their roles in them.

- Participants will gain an understanding of specific infrastructure, equipment, and systems related to the operation of a biocontainment facility.
- Participants will gain an understanding of how specific facility systems operate and support biocontainment.