Containment Facility Design and Validation for Plant Pathology Workshop

Workshop Index **Duration: 2 Days**

Use the index to navigate the workshop sections and open quick reference modals for scope, audience, outcomes, delivery, policies, and FAQs.

Quick Summary

Containment Engineering **Two Day Format** **Validation Focus**

Core Principles of Containment Facility Design and Validation

Understand how containment facility design supports safe plant pathology research through zoning, controlled access, directional flow, and operational separation.

Facility Zoning **Controlled Access**

Review essential design considerations including room layout, clean-to-dirty movement logic, airflow awareness, material transfer routes, and decontamination planning.

Room Layout **Airflow Awareness**

Examine validation needs covering performance checks, procedural verification, equipment readiness, environmental

control review, and documentation quality.

Performance Checks Verification

Build awareness of how containment design and validation reduce escape risk, support safe workflows, and improve laboratory reliability in plant pathogen work.

Escape Risk Safe Workflows

Understand the role of maintenance, revalidation thinking, and monitoring records in sustaining containment performance over time.

Maintenance Monitoring Records

Strengthen decision making for designing and reviewing facilities that align with phytopathology research objectives, compliance needs, and operational safety.

Compliance Needs Operational Safety

Overview

Plant Pathology Facility Planning Infrastructure Quality

Workshop Overview and Learning Outcomes

Learn how containment facility design influences safe handling of plant pathogens, material movement, workflow discipline, and environmental control.

Material Movement Environmental Control

Understand how design elements such as access points, barriers, utilities, service zones, and transfer paths affect containment performance.

Access Points Transfer Paths

Recognize the role of validation in confirming that facility systems, procedures, and operations meet containment and

research expectations.

System Validation Operational Checks

Develop awareness of documentation needed for design review, commissioning logic, routine verification, and audit or inspection readiness.

Design Review Inspection Readiness

Build confidence in reviewing containment facilities for suitability, upgrade needs, and performance sustainability in plant pathology research settings.

Suitability Review Performance Sustainability

Gain practical understanding of how thoughtful facility design improves biosafety, workflow clarity, accountability, and research continuity.

Workflow Clarity Research Continuity

Agenda

Hands On Review Two Day Format Applied Learning

Agenda Flow and Hands-on Components

Day 1 introduces containment design fundamentals, facility zoning, movement pathways, access control, and infrastructure logic for plant pathogen work.

Movement Pathways Infrastructure Logic

Day 1 also covers airflow awareness, decontamination routes, utilities coordination, material transfer design, and workflow separation principles.

Decontamination Routes Workflow Separation

Day 2 focuses on validation workflows, check procedures, documentation quality, commissioning awareness, and ongoing

verification needs.

Commissioning Awareness | Ongoing Verification

Day 2 integrates scenario review for design weaknesses, operational gaps, performance checks, and practical containment improvement planning.

Design Weaknesses | Improvement Planning

Hands-on components include reviewing sample layouts, mapping clean and controlled routes, identifying risk points, and improving validation logic.

Sample Layouts | Risk Points

Participants consolidate learning through practical review of facility plans, operational controls, validation records, and containment-supportive workflows.

Facility Plans | Validation Records

Deliverables

Design Guidance | Awareness Outcomes | Reference Support

Deliverables, Support Material, and Frequently Asked Questions

Participants receive guidance on containment design logic, facility zoning, movement control, validation awareness, and operational review considerations.

Zoning Logic | Operational Review

Reference support emphasizes layout quality, airflow awareness, documentation discipline, routine checks, and containment-supportive infrastructure thinking.

Layout Quality | Routine Checks

The workshop is relevant to plant pathology researchers, facility

planners, biosafety teams, laboratory managers, scholars, and technical staff.

Facility Planners **Laboratory Managers**

FAQ topics address suitability for beginners, layout considerations, airflow relevance, validation depth, documentation needs, and maintenance expectations.

Beginner Friendly **Maintenance Expectations**

Additional discussion clarifies how design and validation discipline improve facility accountability, safer workflows, and sustainable research operations.

Facility Accountability **Sustainable Operations**

Participants finish with stronger understanding of defensible containment facility planning and validation thinking for plant pathology environments.

Defensible Planning **Validation Thinking**

Quick View Who Should Attend Outcomes Delivery Policies FAQs