

Strategies and Considerations Essential to Operation of a 503B Entity Live Training Learning and Performance Objectives

Day 1

Design, Use, Maintenance and Certification of Primary and Secondary Engineering Controls (2 CE hours)

- Utilize knowledge about the principles of airflow to compound with proper aseptic technique using first air regardless of the type of primary engineering control.
- Describe the function of HEPA filters in cleanroom environments and the application of airflow principles to create a sterile compounding environment
- Differentiate ISO Class 5, ISO Class 7 and ISO Class 8 work environments as related to cleanliness and particulate counts
- Outline the different types of laminar airflow workstations (LAFWs) that may be utilized when preparing CSPs.
- Compare sterile facility requirements outlined in USP<797> with those expected in a cGMP environment.
- Use the FDA reference documents and citations to establish facility design priorities.
- Differentiate the engineering controls used in the preparation of non-hazardous versus hazardous compounded sterile preparations.
- Summarize how the primary and secondary engineering controls work together to contribute to the overall sterile compounding facility state of control.
- Integrate an understanding of the term “state of control” into the certification report for primary and secondary engineering controls.
- Identify and differentiate between the various tests performed during certification of primary and secondary engineering controls (HEPA filter leak test; particle counts, room segregation, airflow velocity and smoke pattern testing).
- Recognize the minimum engineering control requirements for sterile compounding controlled environments and how they contribute to attaining a state of control.

Aseptic Processing Lab (1.5 CE hours: 2 exercises @ 45 mins each)

• **Dynamic Smoke Testing**

- Identify equipment that can be used to perform smoke testing.
- Correctly differentiate between horizontal and vertical primary engineering controls.
- Visualize how first air (the clean air coming directly from the HEPA filter) can be affected by placement of materials in the direct compounding area.
- Practice performing aseptic manipulations in a manner that does not block first air.
- List activities to include for worst case activities with process and personnel.
- Judge the worth of a smoke study by performing a smoke study
- Evaluate multiple camera angles to capture smoke path from entry into to exit from room.

Day 1 continued

• **Pressure Differentials and Particle Testing**

- Identify equipment that can be used to measure pressure differentials.
- Articulate the requirements of ISO 14644 for certification of a sterile manufacturing operation.
- Observe the particle generation that occurs under a variety of conditions and using a variety of supplies and identify material handling strategies to minimize impact of particles on compounded products.
- Practice transferring materials into and out of PECs and observe the impact of actions on particle counts.
- Properly establish a direct compounding area (DCA).

Qualifications of Vendors and Products (1 CE hour)

- Describe the importance of vendor qualification to your organization.
- List the elements of an onsite audit or vendor survey.
- Explain how to use the results of the onsite audit or vendor survey to conduct a risk-based assessment.
- Distinguish between when use of a vendor CoA is acceptable versus conducting your own testing.
- List the critical specifications for component and API testing.
- Identify the requirements for auditing your testing lab as well as the requirements of personnel selected to conduct the audit.

Inspection and Receiving of Inbound API, Excipients and Components (1 CE hour)

- List the requirements for receipt, identification, storage, handling, sampling, testing and approval/rejection of materials.
- Discuss areas currently applicable to 503B facilities as well as potential future requirements.
- Explain the potential implications that changing suppliers may have on your practice.
- Explain the implications of changes in specifications and tolerances for APIs/components.

Designing and Effective Cleaning Program and Mechanisms to Evaluate Effectiveness (1 CE hour)

- Discuss mechanisms to evaluate aseptic processing environments for proper disinfectant selection and rotation.
- Design and implement an effective training program for personnel who perform cleaning of the aseptic processing environment.
- Discuss the required elements of a cleaning disinfectant effectiveness study.

Day 2

Aseptic Processing and Conduct in Controlled Environments (1 CE hour)

- State the specific requirements for material movement throughout the facility to achieve effective control of bioburden.
- Describe the importance of dynamic activity and the capacity of the various ISO environments (garbing, aseptic fill and hazardous drug).
- List the critical points of contamination controls and how to maintain asepsis throughout the entire filling process.

Day 2 continued

Hand Hygiene, Garbing and Personnel Sampling (1 CE hour)

- List the importance of time, agents and areas of focus related to hand hygiene.
- Explain how to don garb for ISO 8 and ISO 7 environments.
- Discuss personnel sampling sites for initial qualification as well as daily operations.

Garbing and Personnel Sampling Lab (2 hours CE)

- Demonstrate proper hand hygiene.
- Demonstrate proper garbing sequence and method.
- List personnel sampling sites and perform sampling.

Development of an Effective Environmental Sampling Plan (ESP) (1.25 CE hours)

- Define the requirements of ISO 14644 for certification.
- Describe the importance of considering traffic flow and potential areas of contamination in the development of a risk-based environmental sampling plan.
- Employ technology and data reporting strategies to track and trend environmental sampling data.

Environmental Sampling Lab (1.25 CE hours)

- Design an effective environmental sampling plan that considers work flow as well as use and function of facility to identify and sample potential points of contamination.
- Objectively critique environmental sampling plans relative to their location of sampling.

Development of Media Fills/Operator Qualifications and Process Validation (1.25 hours CE)

- Differentiate between operator qualification and process validation.
- Describe the requirements for initial and ongoing operator qualification.
- Design your media fill procedures using worst case processes culminating in a clear, consistent written protocol.
- Outline the requirements for incubation of operator qualification and process validation media units.
- List the retirements for growth promotion of media.

Day 3

Overview of Methods of Sterilization (Filtration, Steam Heat, Dry Heat and Radiation) (1.5 CE hours)

- Differentiate between in-process and terminal sterilization.
- Compare and contrast each method of sterilization.
- Discuss product and process considerations in the determination of appropriate sterilization method.

Sterility Testing, Endotoxin Testing and other Final Release Considerations (1.5 CE hours)

- Distinguish between the quality control aspects of each type of release test
- Discuss the circumstances that determines which tests are required.
- List the minimum number of containers and volume required for each test.
- Design a statistically sound sampling plan that is based on batch size, filling process and characteristics of formulation.
- Describe the importance of container closure integrity as it related to final product release.

Day 3 (continued)

Stability and Beyond-Use Dating (0.75 CE hours)

- Differentiate between a Stability Indicating method and a time point potency test.
- Describe USP Chapter <1225> requirements.
- Discuss the importance of specificity in potency testing.
- Develop and implement a protocol-driven stability and beyond-use dating program that includes drug characteristics, packaging, container and closure type.

Adverse Event Reporting, MedWatch and Annual Drug Review (1 CE hour)

- State the time by which a potential adverse event complaint must be reported.
- Discuss the importance of collecting critical information promptly.
- List the stakeholders within the organization with whom critical information must be shared and discussed.
- Learn the differences between MedWatch reporting and adverse event Reporting
- Identify the significance of an Annual Drug Review.
- Cite examples of how the Annual Drug Review information can be used to your company's advantage.

Quality Assurance (Corrective and Preventive Action Program) and Complaint Handling (2 CE hours)

- Describe the importance of Quality Assurance
- Evaluate data collected from Corrective and Preventive Action reports to measure the effectiveness of changes.
- Contrast the different levels of complaints.
- Identify the personnel who should be involved in complaint resolution at each stage.

Day 4

Licensing, Legislative Update and Legal Issues Facing 503B Facilities (1 hour law CE)

- LOs TBD
- LOs TBD
- LOs TBD

Common FDA Observations and How to Avoid Them (1 CE hour)

- Identify critical aspects that the FDA will expect during an inspection
- List the most common observations from recent 483s.
- Identify and focus on strategies to avoid these pitfalls.

Day 4 continued

Managing the FDA Inspection Process; Responding to 483s, Warning Letters and Responding to Customer Requests for Information on 483s (2 CE hours)

- Prepare for an FDA inspection.
- Discuss how to manage the inspectional process.
- Explain what to do and not to do during the FDA inspection.
- Describe what happens after the inspection.
- Respond to an FDA 483 if one is issued.
- Define Warning Letters and the implications of receiving a Warning Letter.
- Discuss how to handle customers and the public if an FDA 483 or Warning Letter is issued.

Total CE: 23.5 hours live and 1 hours live law= 24.5 hours