Regulatory Basis:
FDA Quality Systems Regulations

Reference: FDA CFR - Code of Federal Regulations Title 21

General Discussion
This document discusses considerations for a robust training system for those working in or in support of a preparation for aseptic processing area (PAA) or in an Aseptic Processing Area (APA).

Aseptic processing takes place in a controlled, but non sterile environment where sterilized components are brought together and aseptically assembled. There are four major components of an aseptic processing environment; product, components, facilities and equipment, and operators. Operators, including those that prepare equipment and components for and also those that work in an aseptic processing area, are the greatest potential source of contamination. The operator qualification program, which consists of initial and ongoing training, is crucial to ensure that colleagues are prepared to fulfil their roles.

Scope
This document applies to operators in the preparation for aseptic processing area (PAA), the aseptic processing area (APA) and support staff only.

Target Audience
This document is targeted to individuals that design, review, approve and use training systems, training effectiveness assessments and training materials for qualification of aseptic operations personnel.

Rationale for Training
Highly trained and skilled operators are critical to the quality of the aseptically produced product. Their training and understanding of the role they play will lead to successful or detrimental effects on final product quality. EU Annex 1 states “Much depends on the skill, training, and attitudes of the personnel involved.” The Aseptic Processing Guideline recognizes that even the best designed facilities can be compromised by poor personnel practices.

Both those working in and preparing equipment and components for aseptic processing must have an understanding of basic microbiology and APA grades, the potential impact of non-sterile product on patients, and their role in ensuring that the production environment and product is maintained with the necessary integrity and quality.

FDA’s Document for Industry, Sterile Drug Products Produced by Aseptic Processing, calls for knowledge and/or skill based training on aseptic technique and clean-room behavior, basic microbiology, gowning techniques, personal hygiene, and job specific training. A critical aspect of training not specified by either of these documents is education on the overall process for producing aseptic products. Knowledge based training is critical so that operators have an understanding of the overall production process, the critical role they specifically play, and the special considerations that need to be given to any sterile drug administered through injection or

Knowledge based training provides the understanding of why it is critical that procedures and processes are carried out in the right way. This training provides information to help operators in decisions and judgments on a daily basis.

Qualification criteria are set forth in the document and will also be customized by the site depending on the specific knowledge and skills needed for each job. There will be a core knowledge needed for PAA and APA operators. Curriculums will differ based on the skills needed for individual job tasks, assessing certain activities for risks to the product, and the difficulty or complexity of the task.

Qualification Process

Initial Qualification - New colleagues moving into roles in the PAA, APA or support of these areas should go through an initial program designed to give them the background and baseline knowledge and skills to work in these areas and carry out specific assigned job tasks.

During this initial qualification, care should be taken to ensure that the training is designed so that those that may not have any background will be able to comprehend and integrate the knowledge into their daily jobs. All knowledge and skills based training must be documented. (See Appendix 2)

Annual Re-qualification – Annual Re-qualification should build on the baseline established during initial qualification. The training should be engaging and challenging enough to keep operators interested and learning. The focus each year can be changed to match site and business needs. For example, some years there may be more focus on contamination issues or investigation of environmental excursions-other years the focus may be on learning more about incoming new technology. The key is to continue the educational and skill development process. All knowledge and skills based training must be documented. (see Appendix 3)

Extended Absence Re-qualification – If an APA operator has not worked in the APA nor done sterile gowning for a significant length of time, the site must assess when demonstration of competence of critical job skills or a refresher course on certain classroom topics is required.

This assessment should take into account the absence interval, the criticality of the job skills and the operator's individual experience and expertise. This assessment and any training associated with re-qualification must be documented. (See Appendix 4)

Re-qualification due to monitoring failure – Re-qualification should be conducted when an investigation shows that operator error due to lack of understanding or competence is the source of the EM excursions. There are many reasons that an environmental excursion could occur-changes in procedures, disinfectants, new equipment for example-that would not indicate that operator training would be needed.

The structure of this training should be handled on a case by case basis as determined by the investigation. All knowledge and skills based training must be documented.

Training Effectiveness Assessments

Appendix 2: Classroom Training Curriculum for APA and PAA Personnel

Classroom Training Curriculum for APA and PAA Personnel

APA / APA Support and PAA / PAA Support	*Additional Training for APA/APA Support Only*
Aseptic Techniques and Practices Training	
	Sanitization of gloves in the critical zone
	Prevention of contamination of sterile equipment containers, closures, in-process materials, intermediates, API and/or drug products
	Prevention of disruption of Laminar Airflow
	Simulation of APA activities
	Control of traffic and activity levels in the APA
Elementary Microbiology	
Viable and non-viable particulates	
Bacterial endotoxins	
Sources and spread of contamination	
Principles of Contamination Control	
Air Classification Grades A-D	
Sanitization program	
Roles of cleaning, sanitizing, sterilization and gowning in minimizing contamination	
Environmental Monitoring and control programs	
Personnel monitoring	
APA Airlock Practices Training	
	Staging materials for transfer into and out of the APA airlock
	Gowning requirements and glove sanitization
	Timing of APA airlock transfers
	Use of dedicated transfer cart
	Sanitization of materials to be transferred
Visiting Personnel Procedures	
Shoe cover use	
Supervision of gowning procedures by a qualified colleagues	
Visitor escort	

