



FDA's Involvement with Standards

Inspecting the Packaging Process

FDA's Involvement with Standards

- Food, Drug and Modernization Act 1997 – section 514
- Requires CDRH to be involved standards recognition.
- Develop a system which recognizes all or part of a national and international standard established by recognized standards development organizations.
- FDA publishes in the Federal Register the standards that are being recognized as well as the withdrawal of certain standards.
- FDA maintains a list of recognized standards.
- Firms can reference recognize standards in a Declaration of Conformity, which can satisfy a premarket submission requirement.

Medical Device Industry Use of Standards

- Firms use standards in their premarket submissions.
- Conformance with recognized consensus standards is strictly voluntary.
- Recognition of consensus standards helps to streamline premarket submissions of devices to be marketed in the United States.
- Recognition of standards minimizes data needed in premarket submissions.

Medical Device Industry Use of Standards

- Device Manufacturers must provide a declaration of conformance for the standards they intend to include in their premarket submissions.
- Must maintain data to demonstrate conformance.
- FDA may request the data at any time (typically during inspections).
- Failure to demonstrate or falsify conformance to a standard is a prohibited act. Devices will be considered misbranded.

Why is FDA Involved with ASTM F02 committee?

- Latest edition of ISO 11607 addresses the ASTM test methods that may be used to validate the packaging process.
- 32 ASTM Packaging test methods/standards are referenced in ISO 11607.
- ASTM's F02 standards provide detailed guidance and industry practices in regard to packaging testing.
- FDA needs to be involved with these standards to keep informed of current industry practices.

Why is FDA Involved with ASTM F02?

- To ensure the FDA reviewers, compliance officers and investigators understand how to efficiently review and audit data generated from packaging test methods.
- CDRH reviewers and FDA Investigators receive training on validation of the packaging process and packaging standards and their requirements, are referenced.
- FDA uses standards to conduct premarket or Quality System reviews and may reference standards when conducting inspections.



Inspecting the Packaging Process

FDA inspection of the Packaging Process

- FDA inspections of packaging process in medical device manufacturers often focuses on the process validation - 21 Code of Federal Regulation (CFR) 820.75.
- Packaging can be evaluated throughout the Quality System regulation:
- 21 CFR 820.22 – Management Responsibility
 - Ensure personnel involved in packaging are adequately trained, ensure QS requirements are effectively established and maintained, conducting and documenting management reviews.

FDA inspection of Packaging Process

- 21 CFR 820.22 – Quality Audit
 - Ensuring packaging process is being reviewed during quality audits. If a contract packager is used, ensure they are adequately evaluated and complying with the QS regulation.
- 21 CFR 820.25 – Personnel
 - Training is documented. Personnel made aware of device defects which may occur from improper performance. Personnel that perform verification or validation – need to be aware of defects or errors that may be encountered from their job function.

FDA inspection of Packaging Process

- 21 CFR 820.30 – Design Controls
 - Packaging needs to be considered early in the design process. (Packaging engineers part of the design team, ensure packaging will protect the device, maintain sterile barrier, ensure packaging materials are not affected the sterilization process; design changes – do the impact the packaging.)
- 21 CFR 820.50 – Purchasing Controls
- FDA is looking at purchasing controls more closely.
 - Ensuring product or services received conform to specified requirements.
 - Evaluate suppliers (contract sterilizer, packagers or laboratories, and suppliers); document these evaluations. Maintain data that describe the specified requirements suppliers need to meet.

Purchasing Controls

- Establish procedures to ensure purchased or otherwise received product and services conform to specifications.
- Evaluate suppliers, contractors, and consultants. Maintain requirements that must be met.

Purchasing Controls

- Evaluate and select suppliers, contractors, and consultants on the basis of their ability to meet specified requirements, including quality requirements.
- The evaluation shall be documented.

Purchasing Controls

- Define the type and extent of control to be exercised over the product, services, contractors, and consultants, based on the evaluation results.
- Establish and maintain records of acceptable suppliers, contractors, etc.

Purchasing Control

- Establish and maintain data that clearly describe or reference the specified requirements.
- Where possible, an agreement that the suppliers, contractors, or consultants agree to notify the manufacturer of changes in the product or service to determine if the change may affect the quality of the finished device.

Purchasing Control problems

- Quality requirements are not established.
- List of acceptable suppliers or contractors not maintained.
- Inadequate controls implemented
 - No assurance contract packaging process has been validated.
 - Manufacturer assumes contractor performing packaging, however the packaging is outsourced to a third party.

FDA inspection of Packaging Process

- 21 CFR 820.70 – Production and Process Controls
 - Where deviations from a device specification could occur from manufacturing process, the manufacture shall establish process control procedures. (includes Production and process changes, Environmental Controls, Personnel, Contamination Control, Buildings, Equipment - Maintenance schedule, inspection, adjustment, manufacturing material, automated process)

- 21 CFR 820.72 – Inspection, Measuring and test equipment
 - Control of inspection, measuring and test equipment capable of producing valid results; Calibration -Calibration standards; Calibration records.

FDA inspection of Packaging Process

- 21 CFR 820.100 – Corrective and Preventive Action
 - Analyze sources of quality data to identify existing and potential causes of nonconforming product. Analyze data → Investigate cause → Identify actions to correct and prevent nonconformance → Verify &/or Validate → disseminate information to those directly responsible for quality...
 - (i.e. Analyze complaints for packaging deviations)

FDA inspection of Packaging Process

- 21 CFR 820.130 – Device Packaging
 - Designed and constructed to protect the device during processing, storage, handling, and distribution.
 - Validation of the packaging process is if often inspected for sterile devices. Packaging issues are the reason for most recalls due to lack of sterility assurance.
- 21 CFR 820.75 – Process Validation
 - Sterilization and packaging process has been validated according to procedures.

Process Validation

- Validation results and activities, including the date and signature of the individuals approving the validation, and where appropriate major equipment validated shall be documented.
- Establish procedures for monitoring control of process parameters to ensure that specified requirements continue to be met.

Process Validation

- Ensure that validated processes are performed by qualified individuals.
- Monitoring and controls methods and data, the date performed and where appropriate, the individuals performing the process or major equipment used shall be documented.

Process Validation

- When changes or process deviations occur, the manufacturer shall review and evaluate the process and perform revalidation, where appropriate.
- Document these activities.

Inspecting Packaging Validation

- Packaging Validation protocol has been established.
- Protocol addresses package testing such as:
 - Package integrity
 - Seal strength and integrity
 - Shipping studies
 - Aging studies

Packaging Validation deviations

- Packaging validation not conducted.
- Changes made to equipment or process and revalidation is not conducted.
- Monitoring and Control of process parameters not maintained. No assurance packaging equipment is operating within parameters.

FDA inspection of Packaging Process

- 21 CFR 820.80 – Acceptance Activities – Receiving, In-process, and Finished device acceptance
 - Inspection of packaging material, conducting in-process test on seals.
- 21 CFR 820.90 – Nonconforming Product
 - Establish controls for product that do not meet specified requirements. (i.e. seal specifications not met, compromised seals observed)

FDA inspection of Packaging Process

- 21 CFR 820.140 – Handling
 - Ensure mixup, damage, deterioration, contamination to product do not occur during handling.

- 21 CFR 820.150 – Storage
 - Control of storage areas and stock rooms for product to prevent mixups, damage, deterioration, or contamination. Ensure obsolete, rejected or deteriorated product is not used or distributed.

References

- FDA Standards Database
- <http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfStandards/search.cfm>
- Quality System Manual – chapter on packaging
- <http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/PostmarketRequirements/QualitySystemsRegulations/MedicalDeviceQualitySystemsManual/ucm122664.htm>

References

- CDRH Learn – web based video training
- <http://www.fda.gov/Training/CDRHLearn/default.htm>



Thank you!

Patrick Weixel

Consumer Safety Officer

Quality System Team

Office of Compliance

CDRH

Phone: 301-796-5537

Patrick.Weixel@FDA.HHS.GOV