

initiate testing by performing the assay first and recording this date as the appropriate time point in the stability records and reports. It is important to complete testing of the samples in a timely manner. Delays in completion of testing should not exceed 30 days or 1 month from the dates when samples were collected from the stability chamber. Every attempt should be made to avoid omission of testing time points. Missing time points in stability reports have been cited by FDA investigators on the Notice of Inspectional Observations, FDA Form 483.

CGMP CONSIDERATIONS

21 CFR Part 211.166 requires a written testing program to assess the stability characteristics of drug products. To comply with this requirement, SOPs should be written to define the details of the stability program, such as container sizes/fill quantities, testing time points, temperature, and humidity conditions for the accelerated and long-term stability chambers.

The chambers used for accelerated and long-term stability studies should be validated. A validation protocol describing the requirements for installation qualification, operational qualification, and performance qualification should be prepared and executed. The installation qualification essentially verifies that the chamber was properly installed as specified by its manufacturer and provides controlled access to selected personnel only. The operation qualification should verify conformance of the chamber's performance to specifications for temperature, humidity, airflow, and water pressure. The performance qualification study should be conducted over several days to ensure long-term reliability of the chamber. Temperature and humidity mapping studies should be incorporated in the performance qualification to ensure that temperature and humidity gradients are acceptable. The completed validation report should be approved by the Quality Assurance (QA) Department. Upon approval of the validation report, the chamber can be used for stability studies. For continued quality assurance, temperature and humidity data for both accelerated and long-term stability chambers must be recorded continuously and these records must be archived for future audits by the QA personnel and FDA investigators.

FDA INSPECTION

Stability testing methodology and data constitute an integral part of an ANDA application on a specific product and provide the foundation for continued demonstration of the validity of the expiration dates of all products manufactured. This information is subject to inspections by FDA investigators, usually from a local district office. The FDA evaluates the integrity of stability data during preapproval inspections related to one or more ANDA applications and during CGMP inspections to assess the company's compliance with regulations. During these inspections, the method validation reports in support of the stability-indicating analytical procedures, stability data, and the temperature and humidity records for the accelerated and long-term stability chambers must survive the close scrutiny of the investigators to succeed in the process of obtaining FDA approval of the ANDA applications and maintaining