

Maximum allowable hold times should be established for bulk and in-process drug products (where applicable). Typically one lot can be used for validating hold times. Data to justify the hold time can be collected during development on pilot scale batches, during process validation, via a historical review of batch data, or as part of a deviation with proper testing.

Although there are no specific regulations or guidance documents on bulk product holding times, good manufacturing practice dictates that holding times should be validated to ensure that in-process and bulk product can be held, pending the next processing step, without any adverse effect to the quality of the material. This practice is supported by indirect references made to determining holding times in various FDA guidance documents, FDA regulations as follows:

- “if a firm plans to hold bulk drug products in storage.....stability data should be provided to demonstrate that extended storage in the described containers does not adversely affect the dosage form” .
- “stability data also may be necessary when the finished dosage form is stored in interim containers prior to filling into the marketed package. If the dosage form is stored in bulk containers for over 30 days, real-time stability data under specified conditions should be generated to demonstrate comparable stability to the dosage form in the marketed package. Interim storage of the dosage form in bulk containers should generally not exceed six months” .
- “when appropriate, time limits for the completion of each phase of production shall be established to assure the quality of the drug product.” .This regulation could be interpreted to include the time for holding bulk product as part of the production process. “holding times (includes storage times) studies may be conducted during development or carried out in conjunction with process validation lots and shall be representative of full scale holding conditions” . For purposes of clarification, refer to Appendix A for definitions relating to bulk holding time. Holding time data may be generated in the following situations:
 - Bulk holding studies may be conducted on product developmental pilot scale batches to demonstrate comparable stability to the dosage form in the marketed package.
 - Holding data may be generated as part of a process validation study. Data can be collected on the bulk product itself after holding or collected after the held product has been packaged.
 - For current marketed products, a historical review of product lot release and stability data may be used to substantiate hold times if hold times were not established as part of validation. The longest hold time used for the lots reviewed will become the validated hold time.
 - In rare cases where normal production batches are held in bulk for periods longer than the standard hold times, due to a delay in initiation of the next stage of processing or packaging, data may be generated to support the extended