



TIP SHEET 16

VERIFICATION AND VALIDATION

Validation ensures that process specifications meet the intended purpose. Verification ensures that those specifications are consistently being met. To put it in more simple terms, validation is achieved through asking, “Will these specifications ensure product safety during this activity?” while verification is achieved through asking, “Are these results meeting specifications?”

LEARNING OBJECTIVES

APPLICABLE CODE ELEMENT(S)

- DISTINGUISH BETWEEN “VALIDATION” AND “VERIFICATION”
- SELECT WHEN TO APPLY “VALIDATION” OR “VERIFICATION”
- DIFFERENTIATE WHEN TO USE EACH DURING THE IMPLEMENTATION OF THE FOOD SAFETY FUNDAMENTALS CODE

- 2.5 SQF SYSTEM VERIFICATION

KEY TERMS

○ VALIDATION

Defined in the Food and Agriculture Organization’s CODEX Alimentarius Commission Hazard Analysis and Critical Control Point (HACCP) System and Guidelines for its Application – Annex to CAC/RCP 1 – 1969, Rev. 4-2003), as “A system, which identifies, evaluates and controls hazards which are significant for food safety.”

Validation as applied to control limits seeks to prove that the intended result was achieved and that it actually worked.

○ VERIFICATION:

Defined in the Food and Agriculture Organization’s CODEX Alimentarius Commission Hazard Analysis and Critical Control Point (HACCP) System and Guidelines for its Application – Annex to CAC/RCP 1 – 1969, Rev. 4-2003) as “A system, which identifies, evaluates and controls hazards which are significant for food safety.”

Verification as applied to control measures seeks to prove that the control measure was done according to its design.



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○ VERIFICATION SCHEDULE

A schedule outlining the frequency and responsibility for carrying out the methods, procedures or tests additional to those used in monitoring, to determine that the HACCP study was completed correctly, that the relevant SQF System is compliant with the relevant food safety and/or food quality plan and that it continues to be effective

PROCESS STEPS

1. Validation activities should be listed, and include, but are not limited to:
 - a. Comparing standards against legislative literature, scientific and technical information, etc.
 - b. Challenging specifications for microbiological testing, shelf-life testing, etc.
 2. How often? High-risk sites should validate critical limits annually.
 3. Recorded validation information should include the type of equipment used in activity, specifications of the activity, methods used to challenge, results, date, and signed by a qualified individual.
 4. Critical food safety limits are said to be validated when they have been confirmed by scientific analysis. Prerequisite programs and other food safety controls, however, are confirmed by observation, inspection or audit to ensure that they are achieving the desired result. It is required that Critical Control Points (CCPs) and Critical Quality Points (CQPs) be validated at an agreed upon frequency.
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1. Verification activities should be outlined in a verification schedule, which should include a description of verification activities, monitored frequency of completion, designated responsible personnel, and proof of proper implementation and record keeping.
 2. Verification activities include, but are not limited to:
 - a. Personnel practices: Observe employees during the internal audit or daily operational inspection to ensure they are meeting the requirements of the supplier's program.
 - b. Personnel processing practices: Observe employees during the internal audit or daily operational inspection to ensure they are meeting the requirements of the program.
 - c. Training of personnel: Interview employees to ensure that job training has been effective and that key points are understood.
 - d. Calibration of equipment: Engage an outside contractor to confirm that equipment is properly calibrated.
 - e. Management of pests and vermin: Trend pest activity information to determine that the program is effective.
 - f. Premises and equipment maintenance: Trend equipment breakdowns for signs of repeat problems.
 - g. Cleaning and inspection: Perform environmental testing to ensure that microbiological loads are acceptable.
 - h. Water microbiology: Perform water testing to ensure that it meets potability standards.



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3. It is important that personnel conducting validation and verification activities have appropriate training and qualifications to properly verify and validate the activity. Training and certifications must be documented, dated, and signed for records. The use of a registered SQF consultant can help a site attain advice on validation and verification activities when implementing the SQF System.

RELEVANT RESOURCES

- SQFI Website - Use of an SQF Consultant:
<https://www.sqfi.com/sqf-professional/>
- SQF Food Safety Code Module 2 Guidance Document
<https://www.sqfi.com/wp-content/uploads/Module-2-Manufacturing-Guidance-with-cover.pdf>
- Katherine M. J. Swanson and Jean E. Anderson (2000) Industry Perspectives on the Use of Microbial Data for Hazard Analysis and Critical Control Point Validation and Verification. *Journal of Food Protection*: June 2000, Vol. 63, No. 6, pp. 815-818.
- Channaiah, Lakshmikantha. "Validation and Verification of Food Safety Control Measures." *Quality Assurance and Food Safety Magazine*, 11 Jun. 2015, qualityassurancemag.com/article/aib0615-food-safety-validation-verification-methods/. Accessed 15 August 2018.