

Validation & verification

Validation

**Obtaining evidence
that the elements
of the HACCP plan
are effective**

Codex 1996

Validation

**Obtaining evidence that the elements
of the HACCP plan are effective**

***It is the responsibility of the industry
and should be undertaken initially
and as needed thereafter***

FAO/WHO consultation June 1998

Verification

**The application of
methods, procedures, tests,
and other evaluations,
in addition to monitoring,
to determine compliance with
the HACCP plan**

Codex 1997

Verification

The application of methods, procedures, tests, and other evaluations, in addition to monitoring, to determine *conformity* with the HACCP plan.

This is primarily the responsibility of the industry, however some verification activities can be undertaken during regulatory assessments

FAO/WHO consultation June 1998

Conformity

**Activities are carried out
according to the established procedures
e.g. the HACCP plan and prerequisites**

FAO/WHO consultation June 1998

Compliance

**The HACCP plan and prerequisites,
and their implementation,
meet regulatory requirements**

FAO/WHO consultation June 1998

Prerequisites to HACCP

**Practices and conditions needed
prior to and during
the implementation of HACCP
and which are essential for food safety,
as described in the Codex
General Principles of Food Hygiene
and other Codes of Practice**

FAO/WHO consultation June 1998

Food safety confirmation

Industries perform various activities to ascertain that safe foods have been produced.

They check that :

- * **the things are done**
- * **the things are done right**
- * **the right things are done**
- * **the right results are obtained**

Food safety confirmation (cont.)

- the things are done
product pasteurized
- the things are done right
time & temp. achieved
- the right things are done
time & temp. correct
- the right results are obtained
6D of *L. monocytogenes*

Food safety confirmation

Checking that :

- ◆ things are done **verification**
- ◆ things are done right **monitoring**
- ◆ the right things are done **validation/verification**
- ◆ the right results are obtained **validation**

Effectiveness of control at CCP depends on

- **Correct identification of hazard**
- **Appropriateness of CCP**
- **Adequacy of control measure**
- **Correctness of Critical Limit**
- **Capability of monitoring method to detect deviation from normality in time**
- **Appropriateness of monitoring frequency**
- **Adequacy of process control adjustments**

“Safety by design” activities

- ◆ Hazard anticipation
- ◆ Product formulation
- ◆ Challenge tests
- ◆ Storage tests
- ◆ Line layout
- ◆ Process parameters
- ◆ Cleaning and disinfection systems

Validation is part of safety by design

Verification comprises

Checking system conformity:

- ◆ the seven principles have been correctly applied
- ◆ the resulting HACCP plan is correctly and consistently implemented

Effectiveness confirmation:

- ◆ the system delivers what is expected

Verification activities

- **Review of HACCP system and records**
 - ◆ **Review of unacceptable deviations and their follow up**
 - ◆ **Confirmation that CCPs are controlled**
- **Review of consumer complaints**
- **End-product testing**
- **Review of validation data**

Verification

verification is an ongoing activity

Whenever a change from the existing situation is made a new Hazard Analysis needs to be carried out, the outcome verified and the effectiveness of changes in the HACCP plan, if any, validated

Monitoring records, deviation files, raw material & end-product test results, customer complaints etc. need to be reviewed regularly

Records should be kept of all activities

Verification data sheet

What

Why

When

How

Who

**Product
test for
coliforms**

**Past. &
Recont.
Control**

**End of
each
batch**

**Lab.
Instruct-
ions**

Lab.

**Monitoring
trends**

**Improve-
ments**

**End of
month**

Graphs

QA Man.

Questions to be asked in verification before approval

Is there evidence that :

1. hazards have been correctly identified ?
2. control measures eliminate or reduce significant hazards to acceptable levels ?
3. corrective actions restore control ?
4. deviating products will not reach the consumer ?

Audit

**A systematic and
functionally independent
examination
to determine whether
activities and related results
comply with planned objectives**

Codex 1997

Audits

- **Should ideally be carried out by a multidisciplinary team of experts**
- **Should validate and review all decisions taken during HACCP study and during HACCP plan implementation**
- **Should, if necessary, recommend improvements in order to satisfy internal or external needs**

Key messages

- **Validation and verification are activities carried out by, or under responsibility of, industry**
- **Validation is principally done before implementation of the HACCP plan and before changes are introduced**
- **Verification activities are very diverse, and have different purposes, but the final goal is to obtain evidence that the system is working, i.e. that safe food is consistently produced**
- **Regulatory assessments may provide data which can be used for verification by industry**