

Principle #4 -

Monitoring



Principle #4 - Monitoring

- Monitoring
- Conduct a planned sequence of observations or measurements
 - to assess whether a CCP is under control &
 - to produce an accurate record
 - for future use in verification
- Establish Monitoring procedures for each CCP



Purpose of Monitoring

- ✓ Track the operation or the process
- ✓ Identify trends toward a critical limit
- ✓ Signal a need for process adjustments



Purpose of Monitoring

- ✓ Identify a loss of control a deviation occurs at a CCP – aka a deviation
 - Deviation at a CCP = potential food safety hazard
 - Should trigger automatic review of HACCP Plan
- ✓ Written documentation of the process control system



Monitoring Questions

How?

- physical or chemical measurement
 - for quantitative critical limits
- observations
 - for qualitative critical limits

**real-time &
accurate**



Monitoring procedures: Visual

- Objective
 - Temperature
 - Calibrated
 - Time
 - Digital read out– personnel records
 - Chart recorder – reviewed
 - pH
 - calibrated



Monitoring procedures: Visual

- Subjective
 - Carcass zero tolerance
 - Fruit damage



Monitoring Questions

- **Frequency?**
 - continuous or intermittent
 - Need wiggle room
- **Who?**
 - Someone trained



Microbiological testing in Monitoring

- **Ill-suited for this purpose**
 - Results not fast enough
 - Can't be done on-line
 - Food safety & personnel risks
 - Sampling issues
 - Specificity issues



Monitoring

- For CCPs need to provide immediate results so “CAs” can be taken ASAP
- Goal: prevent potentially unsafe product entering commerce
- Avoid a recall!



Monitoring Frequency

- Prefer continuous monitoring
 - More reliable
 - Detect subtle variations
 - With automated monitoring
 - review the record,
 - look for trends,
 - date & sign record/chart



Monitoring Frequency

- Intermittent monitoring:
 - Frequency:
 - based on level of process control as indicated by records
- Consistent process:
 - set frequency based on variation,
 - monitor variability



Intermittent Monitoring

- Variable process:
 - frequent monitoring intervals
- No records:
 - Begin with frequent monitoring
 - Review & tweak frequency



Save all records used to
establish frequency!!



Monitor Training

Monitors are trained in

- Overview of HACCP
- Specific monitoring procedures at a CCP
 - verify competency
- Frequency of monitoring
- Process Control
 - When & how to make adjustments



Monitor Training

Monitors are trained in

- Critical Limits
- Taking Corrective Actions
- Understanding
 - responsibility &
 - next-level notifications
- Proper data entry & record keeping



Monitor Training

- Document Training



Monitor Training

- Example CCP:
 - cooking ham in cookhouse
- Critical Limit:
 - minimum internal temperature of 158°F for minimum of 1 minute



Example

- Monitor needs to understand:
 - ✓ Need for calibrated temperature probe
 - ✓ Cleaning/sanitizing probe
 - ✓ Correct placement of probe
 - ✓ How to read the temperature/time recording chart
 - ✓ Appropriate Corrective Actions



Suggestion

- Post summary sheets describing
 - Monitoring procedures,
 - Critical Limits,
 - Corrective Actions, etc.

IF MONITORING DETECTS A DEVIATION, THEN WHAT?

- POSSIBLE FOOD SAFETY HAZARD **MAY** HAVE OCCURRED
- A deviation requires immediate CA!
- Records
 - develop Preventive Actions
 - improve process control



Identifying Critical Limits, Monitoring & Corrective Actions

Plant

Product Code

Line No.

Process Step CCP	Critical Limit	Monitoring Procedures	Corrective Actions
		What will be measured?	How will process be corrected?
		Where will monitoring be done?	Product disposition?
		How will monitoring be done?	Who is responsible for implementing corrective action?
		Who will do monitoring?	

Reviewed By

Signature:

Date:



CCP Control Log Sheet

CCP No.	Date
Monitoring Procedure	Shift
Monitoring Frequency	Line
Critical Limits	Responsible Person
Corrective Action	

Time	Results	Did deviation occur? (Y or N)	Action Taken	Signature

Review By	
Signature	Date



Establishment _____

HACCP Monitoring and Corrective Actions

for _____ HACCP Plan

CCP #	Process Step	Hazard being controlled	Critical Limit	Monitoring procedure/frequency/person responsible	Corrective Actions/person responsible	HACCP record

Reviewed by signature and date:

Trade Secret, confidential, commercial information.

How Specific ?

**Monitoring Procedure/
Frequency/
Person(s) Responsible**

- ✓ Sanitized & calibrated temperature probes inserted lengthwise into each of 3 franks at different locations in cooking chamber.
- ✓ Temperature, time, & humidity continuously recorded on circular chart.
- ✓ Cook (or trained designee) will visually check the chart;
- ✓ If Critical Limit is met, Cook will initials, date, & time next to record for that cook cycle

