Testing to Verify Product Safety Systems

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Agenda
1. Food protection challenges
2. Considerations in verification testing
3. Questions

Quality & Food Safety Challenges
- Diversifying Portfolio
- Business growing globally
- Demographics rapidly changing
- Food Safety Systems evolving
- Environmental landscape changing
- Food recalls eroding consumer confidence
- Regulations rapidly changing
- Media reporting of perceived risks increasing
- Competition increasing and improving

Eroding Consumer Confidence
- 83% of North American consumers can name a product recalled due to safety concerns in the last two years
- 76% of consumers report they are more concerned today than five years ago about the food they eat
- 57% of consumers have stopped eating a particular product because it was recalled
- 60% of today’s consumers are concerned about the safety of the food they eat, but less than 20% trust food companies to produce and sell safe foods

(Source: Deloitte, IBM 2009)

Crisis Management
The most critical time in a crisis situation is the first day or even the first few hours.
Especially in today’s rapid fire, multi-media, digital world

Verification Testing
Verification

Those activities, other than monitoring, that determine the validity of the HACCP plan and that the HACCP system is operating according to the plan.

(NACMCF)

Limitations of Attribute Testing for “Control” of Product Safety

- Attempting to “control” your product safety testing is limited by the logistics of sampling and analysis time
- Often large sample sizes are required to achieve any type of meaningful results

For Example

- To evaluate a group of 40,000 containers
- Actual defect rate = 0.10%
- Sample size = 125 units
- Accept zero defects, reject on one
- Probability of accepting the lot = 90% (Miller & Juran)

Verification Strategies

- Use testing to verify controls, but not in lieu of controls
  - Testing, in itself, is not a control measure
- Design to detect target organism/analyte and sources
  - “seek and destroy” strategy
- Is flexible and dynamic in response to findings

Considerations in Verification

- Sampling strategies
- Target analyte
  - Microbes (yeast, bacteria, molds, fungi)
  - Chemicals (allergens, phenols, aldehydes)
  - Physical contaminants (glass)
- Validated or official methods
- Data review to enable corrective actions and track trends

Desired Outcomes

- Provides assessment and verifies effectiveness of control measures (receiving programs, supplier management, blending protocols, in-process controls, sanitation, etc.)
- Provides data for use to correct problem areas before they pose a risk for finished product
Develop Written Program (SOP) for Verification Plans
- Sample sites
- Sample types
- Sampling frequency
- Sampling procedures
- Test methods

Finished Product Testing as part of Verification
- Finished product (FP) testing based on risk evaluation
  - May be part of verification program
  - May be part of an event investigation
  - May be part of product release procedure
- Customer requirements
  - May require COA

Considerations for in process and FP testing
- Develop a policy
  - Whether and when to test
  - Impact of a positive result (finding a problem) on finished product
  - Impact of a loop positive on adjacent/associated lots
- Use validated or official methods
- Tested lot
  - Should be put on hold and isolated pending results
  - Retesting should not be done to negate the initial test result
  - Retesting can be done for investigational purposes, e.g., to determine contamination level

Reasons to modify verification testing
- Industry events
  - Recalls, outbreaks, other regulatory activities
- Operational abnormalities
  - Roof leak
  - Natural disasters – floods, earthquakes, etc
- Increase in adverse consumer comments
- Operational monitoring data indicates loss of control
- Verification testing reveals cause for concern
- Verification of corrective actions
- First time production
- Start up after extended down time
- Construction

QUESTIONS???

GMA Food Safety Courses

Seminar on Key Issues in Wine Regulation
San Francisco, United States
18–19 September 2011
GMA Food Safety Resources

- PowerPoint files to accompany the above HACCP manuals
- HACCP Verification and Validation: An Advanced HACCP Workshop

Other Courses Offered by GMA

- Thermal Process Development
- Thermal Process Deviations
- Better Process Control School
- Aseptic Better Process Control School
- Food Labeling

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