

# Management Systems and Prevention

A food safety management system connects the actions employees take with the hazards of the actual operation. Active managerial control means management deliberately keeps those controls working through monitoring and verification. A binder supports the work; it is not evidence that the work occurred. This chapter teaches the 2026 FDA model Code, not automatic local law. A certification exam transition to this Code edition is unconfirmed; check the provider's current exam guidance.

| Recognize           | Understand and apply                                                                                                                                                                                                                                          |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Five risk factors   | Improper holding temperatures; inadequate cooking; contaminated equipment; food from unsafe sources; poor personal hygiene. These describe major contributors to foodborne illness. A situation may involve more than one.                                    |
| Five interventions  | Demonstration of knowledge; employee health controls; controlling hands as a contamination vehicle; time-temperature parameters for pathogens; consumer advisory. These are not a one-to-one matching list for the risk factors.                              |
| A usable system     | Written procedures state the control. Training plans prepare people to perform it. Monitoring records preserve observed results. Verification examines whether the system is effective and followed.                                                          |
| Culture in practice | Leaders provide time and working tools, model the procedures, and support truthful reports even when food must wait. Assign responsibility, investigate failures, and verify the response. An inspection is an outside check, not the daily operating system. |

## One good control does not replace another

A clean board cannot compensate for unsafe sourcing; a cold salad can still be contaminated by a raw-food utensil. For specified raw or undercooked animal foods, the advisory combines disclosure of the item with an increased-risk reminder. Calling oysters 'shellfish' or adding an allergen warning does not disclose their raw condition. An advisory does not kill pathogens or waive service restrictions.

**Remember:** Ask what can go wrong, what prevents it, who checks it, and what evidence shows the response worked. Supplier and pest programs remain useful even though they are not named entries in the five-intervention list.

# PIC Oversight and the Written System

The person in charge (PIC) ensures that employees carry out food safety controls. Assigning the reading to a cook is reasonable; abandoning oversight is not. Qualification, presence, training, and daily execution are related but separate obligations. Apply locally adopted requirements and the actual exceptions, rather than treating a certificate or a binder as complete compliance.

| Recognize              | Understand and apply                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Presence and knowledge | Default: PIC present throughout operating hours. For two or more separately permitted departments on the same premises under the same permit holder, one PIC may cover all during periods without food preparation, packaging, or service. That PIC must remain on the premises throughout operating hours, responsible for each department. This is shared coverage, not absence. A separate minimal-risk exclusion requires the authority's determination. Demonstrated knowledge does not waive applicable PIC certification, which has its own minimal-risk exception. |
| Daily responsibilities | Oversee handwashing, receiving, cooking, cooling, holding, thawing, sanitizing, and ready-to-eat food protection. Provide duty-specific food safety and allergy training. Communicate employee health reporting responsibilities verifiably and implement required written procedures. The permit holder's written illness policy (2-501.11) must be available on request; cleanup procedures are separate (2-502.11).                                                                                                                                                     |
| Written-system timing  | The 2026 Code retains the 2024 requirement: development and maintenance within four years of authority adoption, implementation throughout operating hours, and availability on request. Minimal-risk exclusion is the authority's decision. The clock is not tied to publication or a restaurant opening, and existing duties remain in force.                                                                                                                                                                                                                            |
| Prerequisite programs  | These provide basic operating and sanitation conditions: approved suppliers, safe water, hygiene, employee health, cleaning, sanitizing, maintenance, pest prevention, allergen management, and training. They support, but do not replace, process-specific hazard controls.                                                                                                                                                                                                                                                                                              |

**Turn a repeated failure into an operating change**

Several cooling batches need correction. The PIC checks the method, batch sizes, available cooler space, and employee responsibilities. Adjusting production to verified capacity and observing the next shift provides stronger evidence of prevention than repeating a general reminder. A shift handoff can identify active cooling batches and the next checks due.

**Remember:** The written system must describe the restaurant that actually exists. Confirm local adoption and required dates with the authority; do not assume that four years means other controls can wait.

**2026 addition:** separate written illness policy available on request. **Scored 2022 + December 2024:** health reporting, verifiable notification and work-status duties remain; written vomiting/diarrhea cleanup was already required (then 2-501.11; **2026:** 2-502.11).

# Food Flow and the First Three HACCP Principles

HACCP means Hazard Analysis and Critical Control Point. Before applying its principles, describe the food, intended consumers, ingredients, equipment, and actual process. Walk the operation to confirm the flow diagram. A plan for food cooked and served the same day cannot simply be relabeled for food cooked, cooled, stored overnight, and reheated.

| Recognize           | Understand and apply                                                                                                                                                                                                                                                                                                                 |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Analyze hazards  | Identify significant biological, chemical, and physical hazards and the measures that control them. Consider likelihood without control and seriousness of harm. Pathogen survival, allergen cross-contact, and sharp fragments need different controls. Ordinary appearance or flavor defects are not automatically safety hazards. |
| 2. Determine CCPs   | A critical control point is a step where control is essential to prevent, eliminate, or reduce a safety hazard to an acceptable level. Cooking, cooling, and holding may be CCPs depending on the process and applicable requirements. Not every useful check is one.                                                                |
| 3. Establish limits | A critical limit is the measurable, scientifically supported boundary at a CCP. The step and the boundary are different: cooking is the step; its required internal time-temperature endpoint is the limit.                                                                                                                          |
| Adapt the analysis  | Different equipment, recipes, packaging, flow, or consumers may change hazards and controls. Basic sanitation can be managed through prerequisite programs, but essential process controls still need explicit treatment. Follow mandatory process-specific requirements.                                                            |

**A new overnight production method**

A kitchen begins making soup a day ahead. Its old diagram ended with cooking and service. The new diagram must include cooling and cold storage, followed by any reheating and holding used. The initial cook does not eliminate the need to control later bacterial growth. A shelf-stable garnish rotation rule used only for freshness is not a CCP merely because it appears on the same checklist.

**Remember:** Build the sequence from hazard to essential control step to limit. Do not choose a limit simply because it is convenient to measure, and do not assume a copied plan fits a different operation.

# Limits, Monitoring, and Corrective Action

Principle 4 establishes monitoring procedures; principle 5 establishes corrective actions. A usable plan identifies the employee, method, frequency, and response. Monitoring asks whether the process is meeting its limits. Corrective action addresses a failed limit and the affected food, then follows through on the cause. A house early-warning target can prompt intervention before a critical limit is missed.

| Recognize                | Understand and apply                                                                                                                                                                                                                                                                                            |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Keep the conditions      | For conventional initial raw-poultry cooking, all parts reach 165 F (74 C), instantaneous. That example does not supply the rule for microwave cooking or every reheating purpose. Use the limit for the actual food and process.                                                                               |
| Both cooling stages      | Ordinary cooked-TCS cooling: 135 F to 70 F within two hours; 135 F to 41 F or below within six hours total. A later cold reading cannot erase a failed stage. See Chapter 8 for the separately approved alternative.                                                                                            |
| Plan the measurement     | Specify which food and locations to measure, the suitable calibrated instrument, timing, responsible employee, and recording method. An equipment setting is not automatically evidence of a food endpoint. A manager taking the routine batch reading is still monitoring.                                     |
| Respond to the deviation | Keep affected food from service and use the applicable procedure. An uninterrupted initial cook can continue until its endpoint is met. Unknown time-temperature abuse or contamination needs a different decision. Discard unsafe food or use approved reconditioning where permitted; do not invent a rescue. |

**Read a cooling record**

Soup reaches 135 F at 1:00, 68 F at 2:40, and 40 F at 6:20: both stages are met. Soup still above 70 F at 3:00 has failed the first stage. An earlier warning check could prompt smaller portions or shallow pans while time remains. Changing pans never restarts the original clock.

**Remember:** Record the real result, correction, recheck, and food disposition. Repairing equipment does not by itself establish whether its affected food is safe.

# Verification, Validation, and Records

Principle 6 establishes verification procedures. Principle 7 establishes recordkeeping and documentation. Verification covers activities beyond routine monitoring that assess the plan's validity and whether it is followed. Validation is its scientific component, not an eighth principle. Classify an activity by what it accomplishes, not by whether a cook, manager, or specialist performs it.

| Recognize            | Understand and apply                                                                                                                                                                                                                                                                                    |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Monitoring           | The scheduled batch measurement or observation determines whether a critical limit is met. A PIC covering a station can perform monitoring. Calling a routine reading a management check does not change its purpose.                                                                                   |
| Routine verification | Review monitoring frequency, record accuracy, corrective actions, employee technique, and instrument reliability. Specify who reviews, how often, and how findings are addressed. Repeated deviations call for reassessment, not repeated unexplained signatures.                                       |
| Validation           | Evaluate scientific and technical information showing the controls can manage the identified hazards when properly implemented. Applicable regulatory standards may provide support; specialized processes may need further evidence. Reassess applicability when product or process conditions change. |
| Records              | Keep the plan, supporting documents, operating results, deviations, food disposition, and verification findings. Useful forms connect batch, time, result, employee, and response. Exact retention periods depend on the process and requirements; there is no single universal period taught here.     |

**Three different pieces of evidence**

An employee measures a batch's internal temperature: monitoring. A reviewer compares completed checks and corrections against the written method: verification. A qualified evaluator examines whether the selected preservation method has adequate scientific support for the formulation: validation. Neat daily records cannot establish that an inadequately supported preservation method works.

**Remember:** Never replace a missed reading with a guessed favorable number. Record the gap and investigate the batch. For required plans, maintain records that demonstrate proper operation and provide them to the authority as required. A later passing batch does not erase earlier deviations.

CHAPTER 10 | STUDY GUIDE

# Required Plans, Variances, and Submission

A variance is an authority-granted modification or waiver of a Code requirement. A HACCP plan explains the process controls. Writing or submitting a plan is not the same as receiving permission. Determine the applicable route before introducing a specialized process; ordinary food safety management does not automatically require every restaurant to submit a formal HACCP plan.

| Recognize              | Understand and apply                                                                                                                                                                                                                                                                                                                          |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Required plan contents | Describe the operation, foods, ingredients, equipment, and flow. For each CCP include hazards, limits, monitoring method and frequency, responsible people, corrective action, verification, and records. Include training, blank forms, scientific support as required, and other requested information.                                     |
| Variance triggers      | Examples include curing, smoking for preservation, adding components for preservation or to make food non-TCS, and sprouting seeds or beans. Flavor-only smoking is a different purpose. This is not the complete list. Justify how the proposed departure addresses hazards; obtain the variance and required plan approval before starting. |
| No-variance ROP        | Reduced-oxygen packaging (ROP) can qualify for a no-variance route under specific controls, yet still require a HACCP plan submitted before implementation. The model's submission wording differs from the approval route for variance activities. Confirm local requirements.                                                               |
| Narrow plan exception  | Qualifying ROP TCS food is exempt from the HACCP-plan requirement only when always labeled with production time/date, held at 41 F (5 C) or below during refrigerated storage, and removed from its package in the establishment within 48 hours. Separate restrictions, including the fish restriction, still apply.                         |

**The purpose changes the route**

Adding vinegar for flavor while retaining normal temperature controls differs from relying on acidification to make a food non-TCS. Likewise, buying a vacuum machine does not determine whether a proposed process needs a variance, a submitted plan, or qualifies for an exception. Product, process, time, and applicable conditions decide.

**Remember:** Treat approval, submission, and exemption as distinct. Maintain the authorized procedures and required operating records; a generic supplier template is not an operation-specific plan.

CHAPTER 10 | STUDY GUIDE

# Emergency Decisions and Recovery

Use three crisis phases: preparation, response, and recovery. Preparation practices include documented authority contacts, decision roles, workable alternatives, training, and practice. Obtain required plan approval in advance. An imminent health hazard may exist with sewage backup, fire, flood, extended utility loss, toxic-material misuse, or an apparent foodborne-illness outbreak. Response must address the potential hazard without waiting for laboratory proof.

| Recognize                | Understand and apply                                                                                                                                                                                                                                                                                                                                 |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Default                  | Immediately discontinue operations and notify the regulatory authority when an imminent health hazard may exist, subject to the specific exceptions. Protect affected food from service while its disposition is resolved.                                                                                                                           |
| Unaffected areas         | An area truly unaffected by the imminent hazard need not discontinue. Check shared water, equipment, storage, and employee traffic before treating an area as unaffected. A closed door alone is not evidence of independence.                                                                                                                       |
| Power or water exception | For extended electrical or water interruptions, the authority may agree to continued operation if a written emergency plan has been approved, immediate corrective action controls the risks, and the authority is informed when the plan is implemented. A plan alone is not automatic permission and this is not a sewage-contamination exception. |
| Reports and recovery     | PIC must report employee jaundice or a listed diagnosis. An apparent outbreak triggers emergency response. After legally discontinued operations, obtain authority approval before resuming; completed repairs are not sufficient authorization.                                                                                                     |

**A guest illness call**

Restaurant practice is to listen, record reported foods, meal time, symptom onset, contact details, and others affected, then involve the manager. Preserve relevant records, cooperate with the authority, and coordinate evidence handling. A single call does not identify the cause; local law may impose additional reporting. Customer-service follow-up must not replace mandatory action for an apparent outbreak or other reportable condition.

**Remember:** Separate immediate control, reporting, food disposition, and reopening authorization. This chapter provides a decision framework, not a site-specific emergency operating plan or medical diagnosis.

CHAPTER 10 | REMEMBER THE DIFFERENCE

# HACCP: Put the Decisions in Order

**Hazard. Point. Limit. Monitor. Correct. Verify. Record.**

HACCP means Hazard Analysis and Critical Control Point. The seven-word cue preserves the order of its seven principles; it does not replace an operation-specific plan.

|                                      |                                                                                                                                                                                                                                |
|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1 / 2 / 3: define the control</b> | Analyze hazards; determine critical control points; establish critical limits. Cooking is a process step. The required internal time-temperature endpoint is the limit. Not every checklist entry is a CCP.                    |
| <b>4 / 5: run and respond</b>        | Establish monitoring and corrective-action procedures. A batch temperature check is monitoring. A failed limit needs action for both the process and the affected food, not a guessed passing entry.                           |
| <b>6 / 7: verify and document</b>    | Establish verification and records. Reviewing records and checking that the plan is followed are verification. Scientific support that a control can work is validation, a component of verification, not an eighth principle. |
| <b>Plan vs. permission</b>           | A HACCP plan explains control. A variance is regulatory permission for a stated departure. Writing a plan is not approval, and some no-variance processes still need a submitted plan.                                         |

**Use it on shift:** The manager takes the scheduled soup temperature: monitoring. Later the manager reviews whether checks and corrections followed the plan: verification. The job title did not decide the category; the purpose did.

**Cover the answers. Explain the reason.**

**Does a neat log validate an unsupported preservation recipe?** No. Records of performance cannot replace scientific support that the process can control its hazard.

**Does fixing the cooler settle the affected-food decision?** No. Resolve the food's history and permitted disposition separately.

**Review:** earlier guide pp. 3-6. **Sources:** Annex 4, HACCP principles; 8-201.13-.14; 8-103.10-.12; 3-502.11-.12. Recall wording is Peak Shift teaching.

2026 FDA model Food Code