DA Pam 30-22
Chapter 3, Para. 3-7
Installation Food Protection Programs
Purpose

- Introduce new food protection requirements.
- Provide orientation to:
  - Food Risk Management procedures
  - Risk management responsibilities of the FOS and FPM (formerly the IFA)
  - DA Forms 7458, 7459, & 7460
- Provide guidance for food risk management implementation.

This presentation:

- Introduces new food protection requirements outlined in DA Pam 30-22;
- Defines the food risk management responsibilities of the Food Operations Sergeant (FOS)/DFAC Manager and the Food Program Manager (FPM);
- Provides orientation to the minimum food risk management procedures outlined in the DA Pam and use of 3 new DA Forms;
- Provides guidance for implementing food risk management within your garrison operation
Food safety and sanitation play an integral role in the Army Food Program, serving to protect the health and readiness of our fighting force.

- Simply knowing food safety standards, however, is not enough to ensure that soldiers are protected.
- An examination of food-borne illness outbreaks among active duty soldiers has found that most cases originate from our food operations and are the result of failure to apply prescribed sanitation standards.

In order to reduce the potential occurrence of a food-borne illness outbreak, a formal system must be in place to ensure that prescribed food safety standards are being met. This system is outlined in DA Pam 30-22, paragraph 3-7, Installation Food Protection Programs.

- The Food Program Manager serves as the lead agent for coordinating and developing the installation’s food protection program.
- Basic program requirements include: Food Risk Management; Food Safety and Sanitation Training; and development of an Integrated Pest Management Plan.
- Coordination must be made with the installation Preventive Medicine Activity for development of the integrated pest management plan and sanitation certification training support.
Although Food Sanitation Training and Integrated Pest Management are key components of the installation food protection program, we will only discuss them briefly in this presentation.

Food Sanitation Training
• The FOS and subordinate supervisors, such as shift leaders or First Cook, are required to have a sanitation certification that is current within 4 years. Completion of ServSafe, QMC&S certification through BNCOC, and the ACES Web-based Food Safety and Protection Certification Course fulfill this requirement. Other certification programs must be approved by your supporting Preventive Medicine Activity.
• Each FOS is required to have a training plan in place that will provide subordinate food service workers with 4-hours of refresher food safety and sanitation training each year: Schedule 1-hour each quarter or 15-minute briefings each week.
• Weekly training sessions are preferred:
  • It reduces deviation from prescribed standards by keeping food safety fresh in the minds of all workers.
  • It reduces the repeat deficiencies by allowing supervisors to address problems as they occur.
  • It is easier to program 15 minutes of training at the beginning or end of a shift than it is to schedule 1 or more hours.

Integrated Pest Management Plan
• The FPM develops the plan through coordination with Preventive Medicine, the Directorate of Engineering and Logistics, and the individual Food Operations Sergeants.
• Primary focus for IPM should be on prevention of pest entry into food operations, identification of potential infestations, and controls using the least-toxic method.
  • Structural deficiencies must be identified and corrected to prevent pest entry.
  • Sanitation in and around the facility must be maintained to deter pest harborage.
The remaining slides will help you to understand how risk management can be applied in your food operations.

Food service workers should be familiar with the concept of the Hazard Analysis Critical Control Point (HACCP) program.

• It is nothing more than a fancy way of saying “Food Risk Management”
• Leaders apply risk management when planning their operations; FM 100-14 provides guidance for the 5-step process.
• HACCP uses the same approach as the risk management process, only it defines 7 steps in its process.
• TB MED 530 (30 Oct 02), Chapter 12 and Appendix C, identifies requirements for development of a HACCP plan or program.

**Risk Management Process**

Identify Hazards and Assess Hazards apply to HACCP Principle 1: Conduct a hazard analysis by identifying potentially hazardous foods and associated biological, physical, or chemical hazards.

Develop Controls involves HACCP Principles 2 and 3: Determine Critical Control Points and their associated Critical Limits.

Implement Controls is HACCP Principles 4 and 5: Monitor critical control points and Develop Corrective Actions.

Step 5 of the risk management process is to Supervise and Evaluate. This is the same as HACCP Principles 6 and 7: Verify Program and Record Keeping.
As stated earlier, simply knowing the standards is not enough. Risk management is only effective when controls are both defined and monitored. In the case of food service, this means monitoring time and temperature controls for potentially hazardous foods (PHF).

• TB MED 530, paragraph 2-2, requires the designated “person-in-charge” to demonstrate knowledge in the application of HACCP principles.

The food risk management criteria outlined in DA Pam 30-22 is the Army’s first step towards development of a HACCP program. Currently, only 3 HACCP principles must be applied by the FOS:

• Monitoring procedures
• Applying Critical Limits (at pre-identified CCPs)
• Record keeping

Realize that the hazard analysis, determining critical control points, and establishing critical limits has already been done for you through the TB MED 530 and the defined monitoring processes outlined in Table 3-1, DA Pam 30-22. The processes to be monitored include:

• Cold holding and storage (in refrigerators, on salad bars, breakfast bars, dessert bars, or sandwich bars, etc…)
• Hot holding (in warmers and on serving line)
• Cooking foods from a raw state or re-heating leftovers
• Cooling (all leftovers being refrigerated and all pre-prepared items not commercially procured.)
Table 3-1 (DA Pam 30-22) identifies the minimum monitoring requirements and provides guidance on selecting food items for monitoring.

- It shows the processes to be monitored and the responsible agent (FOS or FPM)
- Monitoring does not have to be cumbersome; only a few items need to be monitored to verify food safety procedures and standards are being met. The table prescribes the number of samples that must be checked and the frequency that monitoring must occur.
- Monitoring criteria is also provided to ensure key foods that are potentially hazardous are being checked.
This sample enlargement of Table 3-1 indicates the FOS or contract dining facility manager is responsible for initiating and documenting the prescribed monitoring procedures in his or her facility. Delegation of the actual monitoring processes to subordinate supervisory-level cooks (i.e., shift leaders) is essential for program success.

NOTE: The FOS or DFAC Manager is ultimately responsible for ensuring the minimum requirements of Table 3-1 are achieved.
As you have noticed, the majority of the monitoring responsibilities fall on the Food Operations Sergeant.

The Installation Food Program Manager (FPM), however, also has a mandatory monitoring requirement. This involves a monthly audit of all dining facilities on the installation.

AR 30-22 requires the FPM to conduct a quarterly comprehensive sanitary inspection. This is in addition to any inspections conducted by the Preventive Medicine Service. The comprehensive inspection conducted by the FPM takes place of the monthly audit noted in Table 3-1.

- In the subsequent months between quarterly inspections, the FPM must conduct an audit of the food risk management procedures in each DFAC (Table 3-1).
- The HACCP Monitoring Report (DA Form 7438-R) in TB MED 530 is recommended to document the audit.
- During the audit, the FPM should also spot-check food risk management documents (DA Forms 7458, 7459, 7460) that are retained on file by the FOS/DFAC Manager from the previous 2-3 weeks.

Food risk management monitoring is essential for ensuring food safety standard compliance.
- It provides a checks-and-balance by ensuring that FOSs and managers are documenting their risk management (modified HACCP) processes.
- It also helps to identify systemic problems related to training and equipment or facility maintenance.
This chart was developed to help you understand the **Category (CAT)** descriptor that is found on the new DA Forms.

- **TB MED 530** prescribes minimum internal cooking temperatures for all foods.
- **This chart categorizes foods based on the internal cooking standard required for a 15-second time period.**

**CAT 1** applies to all foods cooked to 145°F; these include commercially pre-cooked foods, whole muscle beef and lamb, fish (fillets), made-to-order eggs (cooked over-easy or sunny-side-up), cooked vegetables, and other products not otherwise specified.

**CAT 2** applies to foods cooked to 155°F: Pork products; ground or chopped beef, pork, & fish; cubed and injected meats; and bulk-prepared eggs (scrambled).

**CAT 3** are foods cooked to 165°F: Poultry products; stuffed foods (such as pasta shells, peppers, meats); re-heated leftovers; and microwaved foods cooked from a raw state.

**CAT 4** represents a minimum standard of 140°F. It applies to hot holding cooked foods intended to be eaten hot. Foods being held in warmers or on the serving line must meet the CAT 4 standard.

**CAT 5** represents 40°F and is the internal temperature standard for cold holding or storing potentially hazardous foods. This category applies to all chilled foods being held in refrigerators and on the sandwich, breakfast, dessert, or salad bars. It equally applies to bulk milk dispensers and pastry/dessert cabinets.

**CAT 6** represents 38°F and is the maximum allowable ambient temperature of all refrigerated holding/storage units.

Refer to TB MED 530, paragraph 3-42 thru 3-45 for a more complete listing of food items in each of the cooking standards noted on this chart.
Instructions for completing the risk management forms. DA Form 7458, Risk Management Data Log – Cooking

- Initiate a new form each meal period
- This form allows documentation of 6 food items

**Item 1** – Date: 4-digit year, month, day (e.g., 20030619)

**Item 2** – Check the box to the corresponding meal period; if you are preparing brunch or a midnight-meal, check the OTHER box and write in the name of the meal on the line provided.

**Process**: This box identifies the process being monitored. In this case, cooking or re-heating leftovers. You should also note that Categories 1, 2, and 3 are also listed to remind you of the minimum cooking standard for foods that fall into each category.

**Item 3a & 3b** – Print the name, rank, and duty title of the person responsible for spot-checking cooking temperatures. This is generally a shift leader or other designated supervisor.

**Item 3c** – Provide the name of the unit, dining facility number or building number, and the installation.

**Item 4** – Provide the name of the equipment where the food is being cooked. If more than one piece of the same equipment exists in the facility, number them and specify which unit was being used. This becomes important for identifying equipment that might require calibration of operating temperatures.

**Item 5** – The FOS should pre-select food items to be monitored during the meal period and complete this portion of the DA 7458 prior to the meal period. The FOS also notes the category that applies to the food item. This helps to ensure that correct cooking standards are being applied.

**Items 6-9** go together. At the end of the production period (generally indicated as the cooking time on the recipe card), measure the internal product temperature in the center or thickest part of the food item, but not against a bone. For individual-size portions, check the temperature of 2 or 3 items. Record the time that the temperature was taken.

- If the minimum cooking standard was achieved, no additional comments are required.
- If the minimum cooking standard was not reached, place an X in the continue cooking box and make a note in the comments section. The note should reflect how much longer to cook before re-checking the item.
- When re-checking items, note the time and temperature on the blank line below the initial entry and place an X in the recheck of item box.
- Continue the monitoring process and documentation for an item until the standard has been reached. If more than 3 rechecks are required, re-enter the item name and equipment location on a new line and note in the comments section that this is a continuation from a previous listing. Having to re-check items more than 3 times should send a signal to the FOS that the equipment temperature may need calibrating, or the production period may need adjusting on the recipe card.
### DA Form 7459, Risk Management Data Log – Hot or Cold Holding and Storage

- **Initiate a new form each meal period**
- **Document hot and cold processes on different forms.**
- **Document cold holding equipment (for monitoring ambient temperature) on a separate form.** **NOTE:** Since the same equipment must be monitored each meal, type all equipment on a blank form and save for future printing.
- **This form allows documentation of 7 items.**

**Items 1, 2, and 4** record the date, meal period, name of the individual responsible for monitoring these processes, and the unit and facility identification.

**Item 3** lists the different processes being monitored.

- When monitoring the operating temperature of all refrigerate equipment mark 2 boxes: cold and holding.
- For monitoring internal temperatures of foods held in cold storage, mark 2 boxes: cold and storage.
- When monitoring the internal temperature of hot foods in warmers and on the serving line, place an X in both the hot and holding boxes.

**Item 5** provides the equipment identification or location of the food item being stored/held.

- If there are 2 or more pieces of the same equipment in the facility, provide a numeric designator to distinguish each.
- Record the appropriate Category (CAT) designator for the type of process being monitored.

**Item 6** - The FOS is responsible for listing all of the cold holding/storage units and food items to be monitored during the meal period.

- When the operating temperature of the refrigerators is checked, an X is placed in the box labeled Ambient; no food items need to be listed in this block when the Ambient box is marked. The FOS also places the CAT designator of “6” in item 5.
- When the internal temperature of food items is being checked, the name of the food is recorded in the blank space provided, and the CAT designator of “5” is placed in item 5.

**Do not record food items and the equipment operating temperature on the same item entry line.**

**Items 7-9** go together. Record the time and the temperature reading obtained. No comments are needed if the prescribed standard was met.

- When spot-checking food items, a comment is required if the temperature is above 40º F.
- In the example on the form, comments indicate that the item is to be discarded at the end of the meal and a work order number is provided to have the equipment operating temperature adjusted. Other comments may include, “*pre-chill salads after preparation using ice-bath method.*”
DA Form 7460, Risk Management Data Log – Cooling Cooked Items

- Initiate a new form each meal period
- All pre-prepared items requiring refrigeration and all leftovers to be held in cold storage must be cooled and documented on this form.
- This form allows documentation of 4 food items.

**Items 1-3** are self explanatory.

- The comment in the *Process* block indicates that all foods must be chilled to 70°F or below within 2 hours and to 40°F or below within an additional 4 hours. Failure to meet this standard may result in the growth of harmful bacteria.

**Item 4** – List all food items being cooled or pre-chilled (i.e., cold menu items prepared from hot/cooked ingredients).

**Item 5** – Record the cooling process by entering the start time, then at pre-designated intervals, record the time and temperature.

- Cooling process must ensure a product temperature of 70°F or below is attained within 2 hours and lowered to 40°F or below within an additional 4 hours.
- Generally it does not take more than 30 minutes if appropriate cooling techniques are being used. These are annotated under item 6.

**Item 6** – Provides a check box to record corrective actions that were taken if the cooling standard was not met. It also provides suggested methods to expedite the cooling process.

- When cooling is initiated for a menu item, an X must be placed in the box corresponding to the technique used. If none of the listed methods were applied, a note must be entered in the space following the *Other* box.
- If hot foods are placed in the refrigerator or freezer and are found to have an internal temperature above 70°F two hours after it was placed in the unit, a one-time rapid reheat to 165°F is authorized and then the item can be rapidly cooled to 40°F or below.
- If the cooling standard is not met, food items should be discarded.
How to Implement

1. Have blank copies of DA Forms 7458, 7459, and 7460 on hand to manually enter data; or

   • Use Form Flow software to prepare forms for designated meal period.

   DA Form 7458: Cooking Risk Mgmt Log
   http://www.usapa.army.mil/formnum_forms.asp?search=da+7458&submit1=Go

   DA Form 7459: Hot/Cold Holding Risk Mgmt Log
   http://www.usapa.army.mil/formnum_forms.asp?search=da+7459&submit1=Go

   DA Form 7460: Cooling Risk Mgmt Log
   http://www.usapa.army.mil/formnum_forms.asp?search=da+7460&submit1=Go

Now that we understand what the food risk management requirements are and how to complete the forms, we need to know how to implement these processes within our food operations.

The first step is to have an adequate supply of blank forms or easy access to the electronic form file.

The new DA Forms for food risk management are available in Form Flow and can be downloaded from the internet at the following web sites:

DA Form 7458: Cooking Risk Mgmt Log
http://www.usapa.army.mil/formnum_forms.asp?search=da+7458&submit1=Go

DA Form 7459: Hot/Cold Holding Risk Mgmt Log
http://www.usapa.army.mil/formnum_forms.asp?search=da+7459&submit1=Go

DA Form 7460: Cooling Risk Mgmt Log
http://www.usapa.army.mil/formnum_forms.asp?search=da+7460&submit1=Go

Forms can be printed in bulk as a blank form or managers can enter the administrative data electronically before printing. Each form should be saved to a disk or hard drive for easy retrieval.
The Food Operations Sergeant or DFAC Manager is the lead agent for managing food risks in the dining facility.

- At the beginning of the week, day, or shift, the FOS should review the menu programmed for each meal period.
- The FOS also pre-selects (identifies) specific menu items to be monitored each meal, using the guidance in Table 3-1.
Next, the FOS/Manager pre-prepares DA Form 7458 for cooking/re-heating and DA Form 7459 for hot and cold holding and storage.

- Preparation requires entering the date, meal period, name of person responsible for conducting temperature checks, and the unit identification.
- Pre-selected menu items and their corresponding CAT number are entered on the forms.
TB MED 530 requires each cold storage unit to be monitored once during each meal period. The ambient operating temperature should not exceed 38º F to ensure all PHFs will be maintained at 40º F and below.

NOTE 1: Listing cold holding and storage equipment on a separate form (either in FormFlow or manually) will save time from having to re-enter data on future forms.

• List equipment and DFAC location data only
• Leave date, meal period, and designated monitor blank.
• Save FormFlow data file on disk or computer hard drive (e.g., name the file: “equiplist”), or print multiple copies for future use.
NOTE 2: Since it is difficult for the FOS/Manager to anticipate leftovers for a particular meal, preparation of the DA Form 7460 is limited.

- Blank copies of DA Form 7460 should be readily available and accessible for shift leaders to use when needed.
- The FOS/Manager can pre-enter the DFAC location data before printing forms.

Cooling logs are initiated each meal period by the shift leader or FOS only if items will be pre-chilled or cooled as leftovers.

- Ensure the date, meal period, person responsible for monitoring, and food items are properly annotated when the form is used.
Once the forms have been pre-prepared, the FOS/Manager provides the forms to the designated monitor at the beginning of the meal period.

• The shift leader (or designated monitor) is briefed by the FOS/Manager on menu items to be monitored. The shift leader/designated monitor may have to enter the equipment name on the cooking log if the FOS did not identify where specified menu items will be cooked.
• The FOS/Manager should remind the designated monitor of corrective actions and proper completion of the DA Forms.
• The FOS/Manager discusses when and where completed forms should be placed.
Executing and documenting the monitoring procedures fulfills two-thirds of the food risk management process. A follow-up by the FOS/Manager is required to complete the cycle.

At the end of each meal period, the FOS/Manager should spot check each DA Form to ensure monitoring procedures were conducted.

• While reviewing the forms, the FOS/Manager ensures each data block was completed correctly and the information is legible.
• Special care should be made to identify any food safety violations, such as failure to attain a prescribed temperature standard during cooking, retaining leftovers that failed to meet hot holding standards during the serving period, or refrigeration units operating at an ambient temperature above 38°F.

After reviewing the DA Forms, the FOS/Manager files completed forms using the MARKS file number for Preventive Medicine sanitation inspection reports.

• As the week progresses, the FOS should note any re-occurring deficiencies and possibly target them as a future training topic.
• Completed forms are subject to inspection by the Food Program Manager each month.
Follow up actions are necessary to correct existing deficiencies and to reduce the potential for future food safety problems.

Discrepancies noted on the DA Forms can be used to identify needed food safety and sanitation refresher training.

- Training may focus on following prescribed production schedules for cooking time and equipment operating temperatures.
- It may reinforce suitable cooling techniques that will safely reduce product core temperatures in relatively short periods of time.
- Calibrating and sanitizing thermometers are also key training points because they are often violated during food operations.
  - Calibration should focus on the ice-point method
  - Sanitizing thermometers can be achieved by washing with soapy water and/or removing food debris with a disposable paper towel, then spraying the probe with a 100-ppm chlorine solution or other suitable sanitizing agent. Alcohol pads may also be used.

Other follow-up actions may include initiating and tracking equipment or facility work orders. These can include:

- Calibration or adjustment of equipment operating temperatures.
- Replacement of rubber seals on refrigeration units.
Summary

- Purpose
- Introduction: Installation Food Protection Programs
- Training & IPM Requirements
- Food Risk Management
- Minimum Monitoring Requirements
- Temperature Standards & Categories
- Completing DA Forms 7458, 7459, & 7460
- How to Implement Food Risk Management

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