

## HACCP Plan

1. What does the acronym HACCP stand for? What is a HACCP Plan?  
HACCP stands for Hazard Analysis and Critical Control Points. A HACCP Plan is the written document which is based upon the principles of HACCP and which delineates the procedures to be followed.
2. List the 7 principles of HACCP.  
The 7 HACCP principles include:  
Principle 1: Conduct a hazard analysis.  
Principle 2: Determine the critical control points (CCPs).  
Principle 3: Establish critical limits.  
Principle 4: Establish monitoring procedures.  
Principle 5: Establish corrective actions.  
Principle 6: Establish verification procedures.  
Principle 7: Establish recordkeeping and documentation procedures
3. What are the four parts that must be considered in Principle #4? Explain each briefly.  
The purpose of monitoring is to conduct a planned sequence of observations or measurements, assess whether a CCP is under control, and to produce an accurate record for future use in verification. The four parts that must be considered in Principle #4 are: What, How, When and Who. For the "What" part, there is usually a measurement or observation to assess if the CCP is operating within the critical limit. For the "How" part, there is usually physical or chemical measurements (for quantitative critical limits) or observations (for qualitative critical limits). This needs to be real-time and accurate. For the "When" part, this determines if monitoring will be continuous or intermittent. For the "Who" part, it specifies someone who is trained to perform the specific monitoring activity.
4. List and describe 3 pre-HACCP activities ("prerequisite programs").
  - 1.) **Cleaning and Sanitation** - All procedures for cleaning and sanitation of the equipment and the facility should be written and followed. A master sanitation schedule should be in place.
  - 2.) **Production Equipment** - All equipment should be constructed and installed according to sanitary design principles. Preventive maintenance and calibration schedules should be established and documented.

3.) **Training** - All employees should receive documented training in personal hygiene, GMP, cleaning and sanitation procedures, personal safety, and their role in the HACCP program.

5. Using a typical school foodservice entrée product of your choice, relate it to each principle mentioned above in question #2. Apply this example to each principle to show your understanding. Please be as concise with your answer as possible.

I'm using a hamburger and relating it to each principle mentioned above in question #2

1.) Conduct a hazard analysis:

- Ground beef – hazard: pathogenic bacteria (Salmonella and E. Coli)

2.) Determine the CCPs:

- For ground beef, the critical control point is the cooking and patty-forming step (always assemble the patty with sanitary gloves or utensils)

3.) Establish critical limits:

- The Critical Limit is a minimum internal temperature of 155 degrees F for 15 seconds

4.) Establish monitoring procedures:

- Measure the internal temperature of the ground beef to determine when it reaches 155 degrees F, and record the temperature in the cooking log book

5.) Establish corrective action:

- CCP – cooking ground beef to a minimum internal temperature of 155 degrees F for 15 seconds. *If the internal temperature does not reach 155 degrees F, continue cooking.*

6.) Establish verification procedures:

- Conduct frequent reviews of their HACCP plan, verification that the HACCP plan is being correctly followed, and review of CCP monitoring and corrective action records.

- Validation of the cooking process for beef patties should include the scientific justification of the heating times and temperatures needed to obtain an appropriate destruction of pathogenic microorganisms (i.e., enteric pathogens) and studies to confirm that the conditions of cooking will deliver the required time and temperature to each beef patty.

- Once each year, or when otherwise necessary, review the plan and revise as needed.

7.) Establish recordkeeping and documentation procedures

The HACCP system should include the following:

- 1.) A summary of the hazard analysis, including the rationale for determining hazards and control measures.
- 2.) The HACCP Plan which includes all of the details of the operation
- 3.) Support documentation such as validation records
- 4.) Records that are generated during the operation of the plan