

HACCP UNPACKED

HOW TO CONDUCT AN HACCP ANALYSIS

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HACCP
HAZARD
ANALYSIS AND
CRITICAL
CONTROL
POINTS

Sometimes, in addition to your own prerequisite programme (PRP) and good manufacturing practices (GMPs), customers will ask that you also have a hazard analysis critical control point (HACCP) system as part of your food safety management system (FSMS).

HACCP is a management system in which food safety is addressed through the analysis and control of biological, chemical, and physical hazards from raw material production, procurement and handling, to manufacturing, distribution and consumption of the finished product. This is a risk assessment programme used alongside good housekeeping practices to find potential sources of contamination and put measures in place to prevent them.

Conduct a hazard analysis

A hazard analysis is an analysis of the conditions or contaminants in foods that can cause illness or injury.

These hazards include:

- Biological agents – bacteria, parasites, and viruses
- Correctly identifying problem insects and rodents in all the various food establishments
- Physical objects such as bandages, rodent faeces, jewellery, glass, and packaging material
- Chemical contaminants, including natural plant and animal toxins, animal dander, pollen, dust, cleaning products, and insecticides

Determine the critical control points (CCPs)

There are points in the food production process where an action can be taken to prevent or reduce hazards. This is the step at which control can be applied to reduce the hazard to an acceptable level.

For example:

- Hand washing is definitely a preventative CCP
- Refrigeration or cooling of food
- Jewellery, including watches, not to be worn
- Cuts to be covered with a waterproof plaster

More examples include:

- The heat factor in the cooking process is considered a CCP because control measures are necessary in dealing with the hazard of pathogens or bacteria surviving the cooking process.
- Pest control to prevent insecticides and pests from falling into food. If present at high levels in food, pesticides may cause health risks.

What else constitutes a CCP? Proper maintenance and regular servicing of EF units and rodent stations are CCPs. Pest control or management in itself is not a CCP, but a means of controlling a CCP.

Establish the critical limits

This is the limit at which a hazard is acceptable, without compromising food safety.

Below are a few examples:

- The cooking stage includes specific times and temperatures for cooking food products.
- For effective pest control, determine the critical limit per specie. How many flies, cockroaches or rats do you allow before action is implemented? For instance, does one rat warrant immediate action? Each food establishment has its own protocol on insects and rodents, and time when action is needed.







Establish critical control point monitoring

Monitoring activities is essential in ensuring that the process continues to operate safely.

A few examples:

- Determining the internal temperature of the food product, using a specialised thermometer, during the cooking process. Food samples are also a way of monitoring.
- Sticky insect detectors, pheromone traps as well as inspections for rodent droppings are ways of monitoring.

Establish corrective actions

These actions must be implemented to bring the production process back on track, should monitoring suggest that deviation has occurred. In food production, corrective actions before the end stage production are far more effective than waiting until a product is done in order to test it.

Here are a few examples of corrective action:

- When the required temperature has not been reached, the corrective action would be to cook further. When the cooking temperature cannot be reached even after further cooking, then the corrective action is to destroy the product.
- Pest control comprises cultural, mechanical, biological and chemical control. Introducing pest control methods often leads to early prevention and exclusions.
- Seal rodent and cockroach entry points.
- Use T-Rex traps.
- Install metal plates on outside doors.
- Install self-closing door devices.





Record keeping procedures

This will be a summary of the hazard analysis and control measures. It demonstrates the effective application of the CCPs.

Examples of hazard analysis and control measures:

- Keep a cooking log sheet or block lists (date, start and finish times, temperatures and employee signature)
- Treatment reports pertaining to pest control
- Sighting logs
- Trend reports
- Inspection reports
- Action reports
- Chemical log sheets
- Material safety data sheets (MSDSs)

Establish verification procedures

The company's HACCP team or external expert evaluates the system to ensure that the HACCP plan is correctly followed. The expert may verify or assist when systems fail, or new hazards are recognised. It is also necessary that routine checks be done to check if employees are doing their job.