HACCP Plans – Content Summary

Minimum contents of the HACCP plan include:

1. Categorization of time/temperature control for safety (TCS) foods
2. Flow Diagram
3. Employee Supervisory Training Plan
4. Standard Operating Procedures
5. Scientific Data and Records

1. Categorization of time/temperature control for safety (TCS) foods

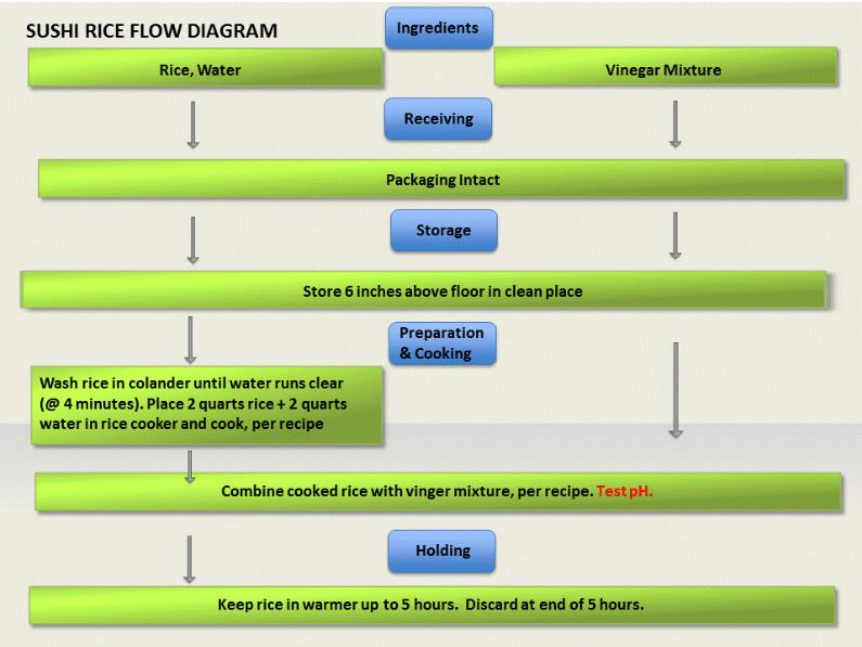
HACCP plans must categorize all TCS foods that are specified in the menu. Remember, just about every component of sushi is a TCS food: cooked rice (white or brown), fish (raw or cooked), fish eggs (roe), eggs, sprouts, and tofu.

2. Flow Diagram

A flow diagram is required for specific food or category types. The diagram must identify all critical control points (CCP) and provide information on:

- Ingredients, materials, and equipment used in the preparation of the TCS food
- Formulations or recipes that delineate methods and control measures to address food safety concerns of the TCS food

Below is an image of a flow diagram for the acidification of sushi rice. Note the red text (Test pH) which indicates the one CCP for the step “Combine cooked rice with vinegar mixture, per recipe”.



The flow diagram starts with ingredients (rice, water and vinegar) that move to receiving. Packaging should be checked and if intact, moved to storage. All food should be stored six inches above the floor in a clean place until preparation and cooking. For this diagram, rice is washed in a colander until water runs clear (about four minutes). Then, 2 quarts of rice and 2 quarts of water are placed in a rice cooker and cooked, per the recipe. When done, the cooked rice is combined with the vinegar mixture, per the recipe, pH tested, then held in a warmer for up to 5 hours. Rice must be discarded at the end of five hours.

Other HACCP plans may include multiple CCPs such as combining ingredients for in-house preparation of vinegar mixtures per a validated recipe or prohibition of bare hand contact with ready-to-eat foods. If so, standard operating procedures must be described for each CCP.

3. Employee and Supervisory Training Plan

The training plan must address the food safety issues of concern, as identified in the flow chart. As with any plan, it is only valuable if employees know about it and are trained to use it. During inspection and validation, ask questions to ensure knowledge

4. Standard Operating Procedures (SOP)

SOP statements must clearly identify each CCP and critical limit, monitoring and control methods and frequencies, and corrective actions.

a) Critical Control Point (CCP)

pH testing is a CCP for the acidification of sushi rice and the pH must be tested each time a batch is made. Testing can be conducted with a pH meter or pH test strips. Test strips use low technology, are relatively easy to use, are less expensive than a pH meter, and don't require cleaning or calibration. However, test strips aren't as accurate as pH meters.

A recommended practice is to have test strips available even if a pH meter is used, so testing can occur even if the pH meter breaks, runs out of battery, or comes out of calibration.

Key Points:

- 1-point pH meter (calibration point 7). This type of meter will not be as accurate as a 2-point meter and some LBOH will not accept it.
- 2-point pH meter (first calibration point is 7 and second is 4). This type of meter is more accurate than a 1-point meter and many LBOH require this type.
- pH strips (pH ranges of 0.3 or less). Submerge strip in rice slurry for 5 seconds. Compare strip color to the color chart on the test kit container.

b) Critical Limits (CL)

The target level pH for the acidified rice is 4.1. It should never exceed 4.6. The pH must be tested prior to use and the CL will vary, depending on when the rice was prepared and the type of testing equipment used. The CL are:

- pH shall not exceed 4.3 (pH test strips)
- pH shall not exceed 4.3 (pH meter and tested within 2 hours of preparation)
- pH shall not exceed 4.6 (pH meter and tested after 2 hours of preparation)

c) Method and frequency for monitoring and controlling each CCP

Either the person in charge or designated food employee must routinely verify all SOPs are being followed and monitored. This includes on site pH testing each time a batch of sushi rice is prepared. Remember that an annual laboratory test of sushi rice is required as part of the annual validation procedures.

d) Corrective action

If the CL for any CCP is not met, the person in charge must take action. Actions will vary depending on the test used.

5. Scientific Data and Records

Record keeping is an important element of a HACCP plan. For the sushi rice HACCP plan, the following records or logs should be kept:

- pH levels of the sushi rice (in-house testing)
- pH level of the sushi rice (laboratory annual testing)
- pH meter calibration (if a pH meter is used)
- Corrective actions

LBOH may also require additional scientific data or other information to support the determination that food safety is not compromised (i.e., refrigeration temperature logs, vendor delivery and packing slips, and employee reporting agreements).

In addition to these operational records, permanent records should also be kept. These records should include the HACCP plan itself, hazard analysis reports, validated recipes, and employee training records.