GUIDELINES FOR A HACCP PLAN FOR SUSHI RICE

A HACCP plan is required when food additives or components, such as vinegar, are used to render a food non Potentially Hazardous (food not requiring refrigeration to prevent microbial growth) such as Sushi rice, according to the California Retail Food Code (Cal code), Article 5. Section 114419.3. The HACCP plan shall indicate all of the following pursuant to Cal code section 114419.1:

- Ingredients, materials and equipment
- Formulation or recipes
- A trained, designated food employee for each location
- Operating Procedures that includes the following:
  - Critical Control Point(s) (CCP)
  - Critical Limit (CL) for each CCP
  - The method and frequency for monitoring the CCPs
  - Corrective Action to be taken if a CL is met or exceeded
  - The method and frequency for verifying the HACCP Plan’s procedures
  - Record keeping (addressing each CCP)

The following must be included in the Sushi rice HACCP Plan:

- A Flow Diagram of the specific food identifying the Critical Control Points providing the following information:
  - Ingredients, materials, and equipment used in the preparation of that food.
  - Formulations or recipes that address the food safety concerns involved with that type of food and the methods to control for those concerns.
- A recipe or formulation for the Sushi rice HACCP Plan which must include all of the following:
  - Type of rice, (for example “short grain”).
  - The concentration of the vinegar, (for example: 5%).
- Methods of cooking rice include the time and temperature.
- Methods of preparing vinegar mixture (ex: vinegar, salt and sugar).
- Method of cooling cooked rice, indicate time and temperature.
- Method of mixing rice and vinegar solution.
- Identify the Critical Control Points (e.g. adding vinegar).
- Identify your Critical Limits (target pH is ≤ 4.4 and must not reach critical limits > 4.6).
- The pH of the Sushi rice must be initially validated by an Accredited Laboratory to indicate the final target pH is 4.4 or less, and does not exceed 4.6 (include laboratory result with submitted plan).
- Methods of measuring and the frequency of monitoring your CCP (for example: measuring the pH daily by using a pH meter accurate to +/- 0.2).
- Describe the Corrective action (for example: if the pH is not less than 4.4, more vinegar will be added to the Sushi rice and the rice will be retested, after second test if pH is not less than 4.4 the rice is to be discarded).
- Policy and procedures regarding storage of Sushi rice should indicate holding time and temperature (for example: 8 hours at 70°F - 80°F).
- A sample of Sushi rice must be sent for pH testing to an accredited Laboratory when:
  - Changing recipe or ingredients (for example: changing the type of rice or vinegar)
- Describe policy regarding remaining Sushi rice following the holding time (for example: discard leftover Sushi rice after 8 hours).
- Describe policy regarding record keeping. For example: all records for the Sushi rice HACCP plan and the related documents are to be kept on-site for at least 2 years.

List of Laboratories measuring the pH of Sushi rice in Southern California:

- Ag Tech: (909) 464-2244
- Michaelson Laboratory: (562) 928-0553
- Food Microbiological Laboratories: (714) 657-7527

Please be advised this list may not be inclusive and should not be considered an endorsement by this Department. Please contact the individual laboratories directly to obtain current information regarding their locations, procedures, fees, etc. **Please note:** Testing shall be done by an approved, third party, accredited laboratory approved by the Department. “In house” laboratory results will not be accepted.
Example Sushi Rice Flow Diagram

* = Critical Control Point (CCP)

**Receiving:** Receiving Dry Ingredients (such as: Rice, Sugar, Salt, Vinegar, etc).

**Dry Storage:** Storing dry ingredients in the dry storeroom on approved shelving and in approved labeled containers.

**Preparation:**
Assemble all ingredients and utensils (list). Weigh or measure all ingredients according to the recipe. Note: If rice is pre-soaked in water for more than 2 hours, soaking must take place under refrigeration (41 °F or below).

**Vinegar, Sugar and Salt Solution:**
- Measure ingredients per recipe.
- Prepare vinegar, sugar and salt solution per recipe.
- Heat the mixture to dissolve sugar & salt.

**Rice:**
- Measure rice and water.
- Cook rice in rice cooker (indicate time & temperature).
- *Cool rice to 115º F in shallow metal pans within 2 hours. Describe cooling procedure, CLs, how CCP will be monitored, and corrective actions.

Add vinegar solution to rice. Mix the mixture continuously with paddle (indicate time and temperature and what equipment is used). Use a calibrated pH meter accurate to 0.2. Measure the pH of Sushi rice in several locations throughout container of Sushi rice daily. Record the pH on the pH log.

* Target pH is 4.4 or less

- Hold rice at room temperature (where and in what container).
- Indicate time and temperature (for example: 8 hours at 70º F - 80º F).
- Discard rice after 8 hours.

- Send sample of Sushi rice for pH testing to an Accredited Laboratory when:
  - Changing recipe or ingredients (for example: changing the type of rice or vinegar).
  - Annually, after the initial submission of the HACCP Plan.

**Record Keeping:** Keep the following Sushi rice HACCP plan documents for two years:
- pH log
- Record of corrective actions taken
- Laboratory results
- Record of the Sushi rice HACCP Training program for employees

**Take Corrective action:**
- Add more vinegar solution (indicate how much).
- Measure the pH to ensure it is 4.4 or lower.

- Discard Sushi rice and remake starting with Preparation.