

**TOWN OF MASHPEE  
BOARD OF HEALTH**

**SUSHI RICE REGULATION**

**1. PURPOSE**

With the growing popularity of sushi as a menu item at food establishments, comes the need to address the inherent risks associated with preparing, storing and serving sushi. The purpose of this regulation is to minimize those risks by ensuring safe food handling practices, particularly as they apply to rice acidification. The Mashpee Board of Health (hereinafter referred to as “the Board”) shall accomplish this through education, detailed inspections, and enforcement of applicable provisions of 105 CMR 590.000, the Retail Food Code and this regulation. It is imperative that food operators work in cooperation with their local Health Department to ensure full compliance with this regulation and all regulatory requirements that govern sushi safety.

**2. AUTHORITY**

This regulation is adopted by the Mashpee Board of Health, pursuant to its authority under M.G.L. c. 111, §31, 105 CMR 590.000 and the Retail Food Code.

**3. DEFINITIONS**

The following words and phrases shall, for the purposes of this regulation, have the meanings specified in this section. Words and phrases not defined in this section shall have their conventional meanings unless expressly stated otherwise.

Approved: Acceptable to the Board based on a determination of conformity with principles, practices, and generally recognized standards that protect public health.

Corrective action: Action to be taken when a deviation or unforeseen hazard occurs.

Critical Control Point (CCP): A step in a food production process at which a control can be applied to prevent, eliminate, or reduce a food safety hazard to acceptable levels.

Critical limits: means the maximum or minimum value to which a physical, biological, or chemical parameter must be controlled at a critical control point to minimize the risk that the identified food safety hazard may occur.

Food employee: any individual working with unpackaged food, food equipment or utensils, or food-contact surfaces in a food establishment.

Food establishment: An operation that is conducted in a mobile, stationary, temporary, or permanent facility or location that stores, prepares, packages, serves, and/or vends food directly to the consumer, or otherwise provides food for human consumption, either on or off the premises.

Food safety hazard: Any biological, chemical, or physical property that may cause a food to be unsafe for human consumption.

## PART IV, SECTION 7.00 – **Sushi Rice Regulation**

Hazard Analysis and Critical Control Point (HACCP) Plan: A written document that delineates the formal procedures for following the hazard analysis and critical control point principles developed by The National Advisory Committee on Microbiological Criteria for Foods.

On-going verification: Activities such as calibration, direct observation and review of records, as well as other independent checks such as testing designed to ensure the HACCP Plan is functioning as intended on an ongoing basis.

Parasite destruction letter: A letter of guarantee from an approved supplier which states that the fish provided by the supplier is properly frozen for parasite destruction according to the Retail Food Code.

Permit: The document issued by the regulatory authority that authorizes a food establishment to operate.

pH: the symbol for the negative logarithm of the hydrogen ion concentration, which is a measure of the degree of acidity or alkalinity of a solution.

Person In Charge (PIC): The individual present at a food establishment who is responsible for the operation at the time of inspection.

Retail Food Code: a state regulation that provides sanitation standards for all food establishments in Massachusetts. It incorporates sections of the 2013 FDA Food Code with amendments the FDA made in 2015. The changes became effective on October 5, 2018 and all food establishments are required to comply with its standards.

Risk: The likelihood that an adverse health effect will occur within a population as a result of a hazard in a food.

Sushi: Raw or cooked fish, tofu, vegetables or other ingredients that surround or top rice that is seasoned with vinegar and other ingredients.

Time/Temperature Control for Safety (TCS) food: A food that requires time and temperature control to limit pathogenic microorganism growth or toxin formation.

Validation: This is the process of demonstrating that the HACCP Plan as designed can adequately control potential hazards to produce a safe, unadulterated product.

### **4. APPLICABILITY**

This regulation shall apply to any food establishment in the Town of Mashpee that has a valid Mashpee Board-issued Food Establishment Permit, and that been granted a variance by the Board and has a Board-approved and validated HACCP Plan, which allow for the preparation and serving of sushi rice.

### **5. REGULATION**

#### **A. Variance and HACCP Plan**

1. Rice acidification is a specialized process, whereby vinegar is added to cooked rice to render it a non- time/temperature control for safety (TCS) food. Rice acidification must be conducted under strict operational procedures. The Retail Food Code has specific requirements for food establishments that conduct these types of specialized processes.

#### PART IV, SECTION 7.00 – **Sushi Rice Regulation**

2. Retail food operators who wish to prepare and serve sushi can do so by use of a variance and approved HACCP Plan. A variance is required when using food additives, such as vinegar, as a method of food preservation rather than as a flavor enhancement. To serve sushi with acidified rice and without temperature or time control, establishments must comply with three requirements:
  - a) Submit a HACCP plan to the Board. Note that the HACCP plan is for the acidified rice, not for the preparation of other ingredients such as the raw fish.
  - b) Obtain a variance from the Board to add vinegar to the sushi rice to render it a non-time/temperature control for safety (TCS) food.
  - c) Comply with the approved HACCP plan and variance provisions.
3. The Retail Food Code §8-103.11 outlines provisions for obtaining a variance from the Board, and that variance allows the food operator to implement a HACCP plan. The Food Code §8-201.14 identifies elements of a properly prepared HACCP plan which, at a minimum, shall include the following:
  - a) Categorization of time/temperature control for safety foods (TCS foods)
  - b) Flow diagram
  - c) Employee supervisory training plan
  - d) Standard operating procedures
  - e) Scientific data and records
4. The Board is responsible for ensuring that HACCP plans, as written, are valid. Health Inspectors and Person in Charge (PIC) are responsible for ensuring that such plans are effectively implemented in the field, to eliminate or significantly reduce identified hazards that may contribute to foodborne illness.

#### B. Monthly Sushi Logs

1. Sushi logs shall be maintained at all food establishments where sushi rice is prepared and served, on which the following shall be recorded using a separate log sheet for each month of the year:
  - a) Name of food establishment
  - b) Month and year that the log is completed
  - c) Date of each entry
  - d) All pH meter calibration readings (pH4 and pH7)
  - e) PH reading for each batch of sushi rice
  - f) Corrective action taken
2. Sushi logs shall be retained for at least three (3) months.

## PART IV, SECTION 7.00 – **Sushi Rice Regulation**

### C. Required HACCP Documentation

1. Food operators who are approved by the Board to prepare and serve sushi rice shall, at all times in the establishment, maintain a binder which includes all of the following:
  - a) Copy of the approved HACCP Plan.
  - b) Fish List that matches sushi menu offerings and notes whether each species is a parasite hazard or non-parasite hazard.
  - c) Parasite Destruction Letters.
  - d) If fish is frozen on site to control parasites, written procedures must be available in the binder, and freezing times and temperatures must be recorded.
  - e) Monthly Sushi Logs.
  - f) Evidence of annual testing of sushi rice by an accredited laboratory that is certified for testing pathogenic bacteria, validating that the pH of the sushi rice is less than 4.2.
2. Food employees shall be instructed where to locate this binder, and the information contained therein shall be provided in both English AND, where non-English speaking persons are employed, the information shall be provided in the native language of those employees.
3. This binder shall be available for examination by agents of the Board of Health, for purposes of an inspection.

### D. Calibration of pH Meter

1. Food employees shall follow manufacturer's instructions for use and calibration of the pH meter, and shall use a pH meter that measures pH from 4.0 to 10.0, for detecting a safe final pH range of less than 4.2 for the acidified rice.
2. To ensure the correct pH values are obtained, the pH meter must be calibrated against known, unexpired buffer solutions prior to testing the first batch of rice each day. The pH meter needs at least two points (pH4 and pH7) for accurate calibration. Begin with the pH7 buffer solution before following up with the pH4 solution. Below are the steps involved with calibrating a pH meter:
  - a) Clean and sanitize the pH meter using an alcohol swab and/or distilled water prior to each use.
  - b) Make sure the buffer solutions are fresh, not expired.
  - c) Place pH electrode directly into the pH7 solution.
  - d) The measurement should reach stability after 60 seconds, and should provide a pH value of 7.0 based on the solution you are using. Record the reading on that month's sushi log.
  - e) The electrode should then be rinsed thoroughly with distilled water before being placed directly into the pH4 solution.
  - f) The measurement should reach stability after 60 seconds, and should provide a pH value of 4.0 based on the solution you are using. Record the reading on that month's sushi log.
  - g) Inaccurate pH meters must be adjusted according the manufacturer's instructions. If an inaccurate pH meter cannot be adjusted on-site, discontinue using it.
  - h) A back-up pH meter or approved Sushi Rice Test Strips should be maintained on-site.
  - i) Calibration shall be performed daily if rice is prepared daily.

#### PART IV, SECTION 7.00 – **Sushi Rice Regulation**

3. Food employees and/or the PIC shall be capable of and prepared to demonstrate proper calibration of the pH meter to agents of the Board of Health, for purposes of an inspection.

##### E. Testing of Acidified Rice

1. A properly calibrated and maintained pH meter shall be provided and used to monitor the pH of every batch of sushi rice. PH test strips may be used as a back-up method only, and must be able to detect 0.1 unit differences in pH.
2. A pH test of the acidified rice shall be conducted within 30 minutes of acidification, following the steps below:
  - a) The cooked rice must be properly cooled.
  - b) The cooked rice must be mixed in such a way as to promote uniform acidification.
  - c) Create a rice slurry by mixing equal parts cooked, acidified rice taken from various locations in the batch, and distilled water (recommend ½ cup of each).
  - d) Blend the slurry for approximately 20 seconds by using a mixing/mashing motion.
  - e) Insert the calibrated pH probe into the liquid slurry to obtain a pH reading. Record the reading on that month's sushi log.
  - f) If pH is not less than 4.2, add additional vinegar, re-test and note the corrective action on the sushi log.
3. Food employees and/or the PIC shall be capable of and prepared to demonstrate a pH test of the acidified rice to agents of the Board of Health, for purposes of inspection.

##### F. Laboratory Testing

The pH of the sushi rice must be initially validated by an accredited laboratory that is certified for testing pathogenic bacteria, to verify the final target pH is less than 4.2. Annually thereafter, a sample of the sushi rice must be sent to an accredited laboratory for pH testing. When changing any equipment, ingredient or process (e.g. changing the type of rice or vinegar), a sample of the sushi rice shall be sent to an accredited laboratory for validation prior to implementing the change.

#### **6. PENALTIES**

Failure to comply with any provision of this regulation shall subject the permit holder to fines, consistent with the Mashpee Board of Health Food Establishment Inspection and Enforcement Regulation.

#### **7. SEVERABILITY**

In the event any section of this regulation is judged invalid by a court of law, such section shall be severed from the remaining sections, which shall remain in full force and effect.

#### **8. EFFECTIVENESS**

This regulation was adopted by the Board of Health on April 3, 2024, and becomes effective upon publication in a newspaper of general circulation.

PART IV, SECTION 7.00 – **Sushi Rice Regulation**

Per Order Of,  
Mashpee Board of Health

Ernest Virgilio, Chairman  
John Livingston, Co-Chairman  
Ed Raposa, Clerk

***Adopted: April 3, 2024 (Adv: April 12, 2024)***