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Retail Food Code Standards for Mobile Food Establishments

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The following information is provided to assist municipalities, food establishments and other interested parties in interpretation of the Retail Food Code. Additional information is available on our website at mass.gov/lists/retail-food or by contacting the Food Protection Program at (617) 983-6712 or fpp.dph@state.ma.us.

Under 105 CMR 590 (the Retail Food Code), Mobile Food Establishments (MFE) must comply with all applicable state and municipal laws and sections of the Retail Food Code for conducting a mobile food operation. MFEs can vary in size and complexity, from large modular units to pushcarts. The following requirements apply to all MFEs and their servicing areas (which is an operating base location used regularly by the MFE), if required. These guidelines are being issued under 105 CMR 590.010 (B) to promote uniform application of the Retail Food Code. This is a summary of the Retail Food Code requirements and may not incorporate all applicable standards. The full text of the regulation can be accessed here: mass.gov/lists/retail-food.

PERSONNEL

1. PERSON IN CHARGE

- a. The MFE must have a person in charge (PIC) present during all hours of its operation. The person in charge shall be responsible for the overall operation of the MFE and for compliance with the Retail Food Code. A Certified Food Protection Manager may be required if the MFE is preparing foods that require certain time/temperature controls for safety (TCS) to prevent growth of bacteria. **(590.002 (A-D); FC 2-101 – 2-103)**
- b. Food employees must be properly trained in food safety, including food allergy awareness, as it relates to their assigned duties. **(590.002 (D); FC 2-103.11 (N); 590.011 (C))**
- c. The menu and manner for transportation, storage, cooking, preparation, and service of the food and beverage items must be provided to the regulatory authority for evaluation and approval. **(590.008; FC 8-201.11, FC 8-201.12; 590.008 (B); FC 8-201.20)**
- d. All food and beverage items to be offered at the MFE must be identified and approved by the regulatory authority during the application process and prior to an evaluation being conducted of the structural components of the MFE. **(590.008; FC 8-201.11, FC 8-201.12; 590.008 (B); FC 8-201.20)**
- e. Properly prepared plans and specifications of the MFE must be submitted to the local board of health. Plans must include the intended menu, proposed layout, equipment types and information, and anticipated volume of food to be stored and prepared. These plans may be used by the board of health to determine whether the MFE would require a servicing area. **(590.008; FC 8-201.11, FC 8-201.12)**
- f. Personal clothing and belongings must be stored in a designated place in the MFE away from food preparation, food service, dry storage areas, utensil and single-service and single-use item storage, and ware washing areas. **(590.006; FC 6-403.11)**

2. EMPLOYEE HEALTH

- a. Employees who have been diagnosed with or show signs of communicable diseases which can be transmitted through food shall be excluded and/or restricted from food activities. **(590.002 (E-G); FC 2-201.11, FC 2-201.12, FC 2-201.13, 2-201.20; FC 2-401.12)**
- b. Food employees who have an infected or open cut or wound on their hands, wrists or arms must have it properly bandaged and covered with an impermeable cover such as a glove and finger cot. **(590.002 (F); FC 2-201.13 (I))**
- c. There must be employee practices and behaviors established that can help prevent the spreading of

- viruses and bacteria to food. Highly infective pathogens that can be easily transmitted by food employees and cause severe illness include Norovirus, Hepatitis A virus, *Shigella* spp., Shiga toxin-producing *Escherichia coli*, *Salmonella* Typhi, *Salmonella* (nontyphoidal), and any other disease transmissible through food so designated in 105 CMR 300.000. (**590.002; FC 2-3; FC 2-4**)
- d. Interventions must be used to prevent the transmission of foodborne illness. These interventions include (a) restricting or excluding ill food employees from working with food; and (b) using proper handwashing procedures. (**590.002; FC 2-201.12; FC 2-301.11, FC 2-301.12, FC 2-301.14, FC 2-301.15**)
 - e. Proper management involves ensuring that food employees do not work when they are ill and having procedures for identifying employees who may transmit foodborne pathogens to food, other employees, and consumers. The PIC should be concerned with employees having the following symptoms: vomiting, diarrhea, jaundice (yellow skin or eyes), sore throat with fever, infected cuts and burns with pus on hands and wrists. (**590.002 (E); FC 2-201.11, FC 2-201.12; 2-201.20**)
 - f. Information and forms to aid in complying with Employee Health can be found in Chapter 8 of the Foodborne Illness Investigation and Control Manual.
<https://www.mass.gov/lists/foodborne-illness-investigation-and-control-manual>

3. HANDWASHING and HYGIENE

- a. Food employees shall maintain a high degree of personal cleanliness and shall conform to good hygienic practices during all working periods. (**590.002; FC 2-3**)
- b. Employees preparing food may not contact exposed, ready-to-eat food with their bare hands and shall use suitable utensils such as deli paper, spatulas, tongs, single-use gloves or dispensing equipment. (**590.003 (C); FC 3-301.11**)
- c. Food employees shall clean their hands and exposed portions of their arms, including surrogate prosthetic devices for hands and arms, immediately before engaging in food preparation including working with exposed food, clean equipment and utensils, and unwrapped single-service and single-use articles and as often as necessary to remove soil and contamination and to prevent cross contamination. (**590.002; FC 2-301.11, FC 2-301.12, FC 2-301.14, FC 2-301.15**)
- d. Food employees shall have clean outer garments, aprons and effective hair restraints. (**590.002: FC 2-304.11, 2-402.11**)
- e. Food employees are not allowed to eat (including chewing gum), drink, or use any tobacco in the food preparation and service areas. A food employee may drink from a closed beverage container if the container is handled to prevent contamination of the employee's hands; the container; and exposed food, clean equipment, utensils and single-service/single-use articles. (**590.002; FC 2-401.11**)

4. FOOD DEFENSE

- a. The MFE must be secured to prevent unauthorized access to food, equipment, utensils, and related items. (**590.003; FC 3-307.11**)
- b. Self-service operations at MFEs must be supervised at all times. (**590.003; FC 3-306.13(C)**)
- c. Unauthorized personnel shall not be allowed at or in the MFE. (**590.002 (D); FC 2-103.11(B)**)

FOOD SOURCE AND TEMPERATURE CONTROL

1. APPROVED SOURCE

- a. The source of food on an MFE must be in compliance with **590.003 (A-B); FC 3-201, 3-202 and 3-203**. All meat and poultry must come from USDA or other acceptable government regulated approved sources.
- b. All locations used for preparation of ice or other food items as well as proper storage of those items must be permitted. (**590.008; FC 8-301.11**)
- c. Home canned and home cooked foods may not be offered at the MFE unless the home kitchen is permitted by the LBOH. (**590.003 (A); FC 3-201.11 (B), FC 3-201.12**)
- d. Ice for use as a food or a cooling medium shall be made from potable water. (**590.003; FC 3-202.16**)

2. TEMPERATURE MEASURING DEVICES

- a. Temperature measuring devices, appropriate to the operation, must be used for monitoring temperatures for the types of TCS foods prepared and held at the MFE. (**590.004; FC 4-302.12**)
- b. A thermocouple, thermistor or metal stem thermometer shall be provided to check the internal temperatures of TCS hot and cold food items. The temperature measuring device must be appropriate for the type of foods served such as for thin foods. (**590.004; FC 4-302.12(B)**)
- c. Food temperature measuring devices shall be accurate to $\pm 2^{\circ}\text{F}$ and have a suggested range of 0°F to 220°F . (**590.004; FC 4-203.11(B)**)

- d. Regular calibration of the temperature measuring devices shall be accomplished to ensure accurate food temperature measurements. (590.004; FC 4-502.11 (B))

3. COOKING, HOLDING, AND REHEATING FOR HOT HOLDING TEMPERATURES (See Charts Below)

Summary Chart for Minimum Cooking Food Temperatures and Holding Times Required by 590.003; FC Chapter 3 adapted from FC Annex 7 Chart 4-A	
Food	Minimum Temperature and Holding Time
<ul style="list-style-type: none"> Raw Eggs prepared for immediate service Commercially Raised Game Animals and Exotic Species of Game Animals Fish, Pork, and Meat Not Otherwise Specified in this Chart or in 590.003; FC 3-401.11(B) 	63° C (145° F) for 15 seconds
<ul style="list-style-type: none"> Raw Eggs not prepared for immediate service Comminuted Commercially Raised Game Animals and Exotic Species of Game Animals Comminuted Fish and Meats Injected Meats Mechanically Tenderized Meats 	68° C (155° F) for 15 Seconds or: <ul style="list-style-type: none"> 70° C (158° F) for 1 second 66° C (150° F) for 1 minute or 63° C (145° F) for 3 minutes
<ul style="list-style-type: none"> Poultry Baluts Stuffed Fish; Stuffed Meat; Stuffed Pasta; Stuffed Poultry; Stuffed Ratites Stuffing Containing Fish, Meat, Poultry, or Ratites Wild Game Animals 	74° C (165° F) for 15 seconds
Food Cooked in a Microwave Oven	74° C (165° F) and hold for 2 minutes after removing from microwave oven

Summary Chart for Minimum Food Temperatures and Holding Times Required by 590.003; FC Chapter 3 for Reheating Foods for Hot Holding adapted from FC Annex 7 Chart 4-B		
Food	Minimum Temperature and Time at the Specified Temperature	Maximum Time to Reach Minimum Temperature
Food that is cooked, cooled, and reheated (590.003; FC 3-403.11(A) and (D))	74°C (165°F) for 15 seconds	2 hours
Food that is reheated in a microwave oven (590.003; FC 3-403.11(B) and (D))	74°C (165°F) and hold for 2 minutes after reheating	2 hours
Food that is taken from a commercially processed, hermetically sealed container or intact package 590.003; FC 3-403.11(C) and (D))	57°C (135°F) (No time specified)	2 hours
Roasts: Option A (590.003; FC 3-403.11(E)) Unsliced portions of meat roasts cooked as specified under 590.003; FC 3-401.11(B)	Same oven parameters and minimum time and temperature conditions as specified under 590.003; FC 3-401.11(B)	Not applicable

<u>Roasts:</u> Option B (590.003; FC 3-403.11(E)) Unsliced portions of meat roasts cooked as specified under 590.003; FC 3-401.11(B)	74°C (165°F) for 15 seconds	2 hours
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3. COOLING

- a. All TCS food which is pre-cooked and pre-cooled either on the MFE or at the Servicing Area should be pre-approved by the local regulatory authority. (**590.008; FC 8-201.12; 590.003; FC 3-401.14**)
- b. The person in charge must demonstrate that the facilities on the MFE or at the Servicing Area are adequate to cool TCS foods in accordance with **590.003; FC 3-501.14 and FC 3-501.15**.
- c. Cooked TCS food shall be cooled from 135° F to 70°F within 2 hours; and from 135°F to 41° F within a total of 6 hours or less. (**590.003; FC 3-501.14 and FC 3-501.15**)
- d. The regulatory authority may require time/temperature logs for TCS foods that are cooled on the MFE.

4. THAWING

- a. All frozen TCS foods shall be thawed under refrigeration at 41° F or less; or completely submerged under 70° F running water; or as part of the cooking process. (**590.003; FC 3-501.13 (A – D)**).
- b. One exception is frozen reduced oxygen packaged (ROP) fish labeled "Keep Frozen" shall be removed from its ROP package before thawing under refrigeration at 41° F or less or before or immediately after thawing under 70° F running water. (**590.003; FC 3-501.13 (E)**).

FOOD EQUIPMENT AND UTENSIL REQUIREMENTS, STORAGE & HANDLING

1. CROSS CONTAMINATION

- a. Food shall be protected from cross contamination during transportation, storage, preparation, holding, and display by separating different types of raw animal foods from ready-to-eat foods. (**590.003; FC 3-302.11**)
- b. Equipment and utensils (including knives, cutting boards, and food storage containers) must be thoroughly cleaned and sanitized after being used for raw animal foods and before being used for ready-to-eat food. (**590.004; FC 4-601.11; FC 4-702.11**)

2. DRY STORAGE

- a. All food, equipment, utensils, and single-service items shall be properly stored including storage which is at least 6" off the ground or floor, protected from contamination, and provided with effective overhead protection. (**590.003; FC 3-305.11 & 590.004; FC 4-903.11**)

3. FOOD DISPLAY

- a. All food shall be protected from customer handling, coughing, sneezing or other contamination by wrapping, the use of food shields or other effective barriers. (**590.003; FC 3-306.13**)
- b. Condiments must be dispensed in single-service type packaging, in pump-style dispensers, or in protected squeeze bottles, shakers, or similar dispensers which prevent contamination of the food items by food workers, patrons, insects, or other sources. (**590.003; FC 3-306.12**)

4. IN-USE UTENSIL STORAGE:

- a. In-use utensil storage shall be in compliance with **590.003; FC 3-304.12**.
- b. Back-up utensils must be stored clean and dry and in a protected location. (**590.004; FC 4-903.11**)

CLEANING AND SANITIZING

1. WAREWASHING

- a. Warewashing shall be done in compliance with **590.004; FC 4-6; FC 4-7**.
- b. Warewashing methods must be available to wash, rinse, and sanitize equipment and utensils coming into contact with food. (**590.004; FC 4-6, FC 4-7**)

2. SANITIZING

- a. Equipment, food-contact surfaces and utensils shall be cleaned and sanitized when changing from

working with raw foods to working with ready-to-eat foods; between uses with raw fruits and vegetables and with TCS food; before using or storing a food temperature measuring device; and if used with TCS food shall be cleaned throughout the day at least every 4 hours; and at any time during the operation when contamination may have occurred. **(590.004; FC 4-602.11)**

- b. Approved sanitizers must be provided for sanitizing food-contact surfaces, equipment, and wiping cloths. **(590.007; FC 7-204.11)**
- c. Sanitizers shall be used in accordance with EPA-registered label use instructions. **(590.007; FC 7-202.12)**
- d. An approved test kit must be available to accurately measure the concentration of sanitizing solutions. **(590.004; FC 4-501.116, FC 4-703.11)**

3. WIPING CLOTHS

- a. Wiping cloths that are in use for wiping food spills shall be used for no other purpose and shall be stored clean and dry or in a clean solution at the approved sanitizer concentration. **(590.003; FC 3-304.14)**

PREMISES

1. OVERHEAD PROTECTION

- a. Each individual piece of cooking and hot and cold holding equipment must be separately covered (cooker top, lidded holding compartment, etc.) or the structure of the MFE must have overhead protection (ceiling) **(590.006; FC 6-202.16; FC 6-201.12 (A))**. Examples of acceptable overhead protection are roofs or other permanent structures, canopies, awnings, or attached umbrellas for units such as pushcarts. Overhead protection may not always be suitable for use over frying or grilling operations that generate airborne grease. State/local fire codes may dictate specific limitations.
- b. For MFEs that have self-service components, additional protection of individual food dispensing containers that are located beneath an awning or similar structure may be necessary **(590.003; FC 3-306.12 (A))**. Examples would be lidded dispensing containers and sneeze guards.

2. WALLS

- a. For self-contained MFEs, walls are required to protect against the elements, wind-blown dust and debris, insects or other sources that may contaminate food, food- contact surfaces, equipment, utensils, or employees. **(590.006; FC 6-202.16)**
- b. Walls must be smooth, durable, easily cleanable and nonabsorbent. Pass-through windows may be installed in the walls and may require screening to prevent the entrance of insects **(590.006; FC 6-101.11; FC 6-201.11; FC 6-202.15; FC 6-202.16; FC 6-501.11)**.

3. FLOORS

- a. Unless otherwise approved, floors of self-contained MFEs must be designed, constructed, and installed so they are smooth, durable, and easily cleanable. Examples of acceptable floors are vinyl composition tile, commercial grade linoleum, or similar finish **(590.006; FC 6-101.11; FC 6-201.11; FC 6-501.11)**.
- b. The floor and wall junctures are to be coved and sealed **(590.006; FC 6-201.13)**.
- c. Push carts and food delivery and dispensing units must be located on concrete, asphalt, or a similar non-absorbent surface that minimizes dust and mud. The service sites should be graded to drain away from the MFE **(590.006; FC 6-102.11)**.

4. VENTILATION AND FIRE PROTECTION

- a. Local regulations shall govern ventilation and fire protection requirements at the MFE.
- b. Enclosed MFEs must comply with **590.006; FC 6-304.11**.

5. LIGHTING

- a. Adequate lighting by artificial or natural means is required.
- b. MFEs that are fully enclosed must be provided with artificial lighting.
- c. The lighting intensity shall be in accordance with **590.006; FC 6-303.11** and shielding of the lights shall be in accordance with **590.006; FC 6-202.11**.

6. HANDWASHING FACILITIES

- a. A handwashing sink is not required if the only food items offered are commercially pre-packaged foods that are dispensed in their original containers. The board of health may approve the use of chemically treated towelettes in lieu of hand-washing facilities if only frankfurters, non-TCS foods and non-perishable foods are served and there is no bare-hand contact. Chemically treated towelettes must be made available for use by customers in self-service operations. **(590.005; FC 5-203.11 (C))**

- b. At least one handwashing sink must be located on all MFE's that are involved in food handling and preparation, cooking, cooling and reheating. (**590.005; FC 5-203.11**)
- c. Each handwashing sink must be provided with suitable hand cleaner, individual disposable towels, and a waste receptacle. A handwashing sign is to be posted at the handwashing sink. (**590.006; FC 6-301.11; FC 6-301.12; FC 6-301.14**)
- d. Handwashing facilities shall be equipped to provide potable water at a minimum temperature of at least 100°F through a mixing valve or combination faucet. (**590.005; FC 5-202.12 (A)**)
- e. Hand-washing facilities must be provided at all toilet facilities used by the food employees. (**590.005; FC 5-204.11 (B)**)

7. TOILET AND HANDWASHING FACILITIES

- a. Toilet and hand washing facilities must be available for MFE employees along their route of service. (**590.005; FC 5-204.11**)
- b. The toilet facilities must be conveniently located to the food preparation and ware washing areas. (**590.006; FC 6-402.11**)

8. GARBAGE AND PESTS

- a. An adequate number of non-absorbent, easily cleanable garbage containers must be provided at the MFE. (**590.005; FC 5-501.13**)
- b. Garbage containers must be rodent-proof, non-absorbent, and covered when not in use. (**590.005; FC 5-501.13 (A); FC 5-501.15**)
- c. Final disposal facilities for garbage, grease, and other waste materials must be identified, approved by the regulatory authority, and used. (**590.005; FC 5-503.11**)
- d. The MFE must be maintained free of insects, rodents, and other pests. (**590.006; FC 6-202.15**)

9. TOXIC MATERIALS

- a. Materials necessary for the operation of an MFE shall be properly stored, labeled and used. (**590.007; FC 7-1 and 7-2**)
- b. Poisonous or toxic materials are to be properly labeled and stored so they cannot contaminate food, equipment, utensils, and single-service and single-use articles. (**590.007; FC 7-201.11**)
- c. Only those chemicals necessary for the food operation shall be provided. (**590.007; FC 7-202.11**)
- d. Toxic materials must be labeled and located in accordance with **590.007; FC 7-1 and 7-2**.

EQUIPMENT

1. FOOD-CONTACT AND OTHER SURFACES

- a. All food-contact and other surfaces used in an MFE shall be designed, constructed, and maintained in accordance with **590.004; FC Chapter 4**.
- b. Materials used in the construction of food-contact surfaces shall comply with **590.004; FC 4-1, FC 4-2**.
- c. Food-contact surfaces shall be non-toxic, smooth, easily cleanable, free of rust, dents or pitting, and durable under the conditions to which they will be exposed. (**590.004; FC 4-202.11**)
- d. All other surfaces shall be finished so that they are smooth, nonabsorbent, corrosion resistant, and easily cleanable. (**590.004; FC 4-101.19**)

2. COOKING AND REHEATING EQUIPMENT

- a. Cooking and reheating equipment shall be designed, constructed, and maintained in accordance with **590.004; FC Chapter 4**.
- b. The reheating equipment used on the MFE must be capable of heating all of the TCS foods offered from the MFE to their required reheating temperature within two hours or less. If proper temperatures cannot be attained using the equipment on the MFE, then cooking and reheating must occur at the servicing area and will not be allowed on the MFE. (**590.003; FC 3-403.11 (D)**)

3. HOT AND COLD HOLDING EQUIPMENT

- a. Equipment used at the MFE for hot holding must be capable of maintaining TCS foods at 135° F or above. (**590.003; FC 3-501.16**)
- b. Equipment used for cold holding at the MFE must be capable of maintaining TCS foods at 41° F or below. (**590.003; FC 3-501.16**)
- c. Refrigeration, such as mechanical, absorption or thermoelectric, shall be installed and used in accordance with the manufacturer's instructions.
- d. Each refrigeration unit must have a numerically scaled thermometer accurate to ±3° F to measure the air

- temperature of the unit. (**590.004; FC 4-203.12 (B)**)
- e. Unpackaged foods may not be stored in direct contact with undrained ice, except as allowed for raw fruits and vegetables, and raw poultry and raw fish that are received on ice in shipping containers. (**590.003; FC 3-303.12**)
 - f. Ice used as a coolant for foods shall not be used for drink ice. (**590.003; FC 3-303.11**)

WATER SUPPLY, CAPACITY AND WASTEWATER DISPOSAL

- 1. WATER**
 - a. An adequate supply of potable water meeting the requirements of **590.005; FC 5-101, FC 5-102, and FC 5-103** shall be available on the MFE for cooking and drinking purposes; for cleaning and sanitizing equipment, utensils, and food-contact surfaces; and for hand washing.
 - b. Water must come from an approved public water source or an approved well water source. (**590.005; FC 5-101.11**)
- 2. WATER SYSTEM**
 - a. The water supply system and hoses carrying water must be constructed with approved food-contact materials and must be installed to preclude the backflow of contaminants into the potable water supply. (**590.005; FC 5.205.12; FC 5-301.11; FC 5-302.11; FC 5-302.14; FC 5-302.15; FC 5-302.16**)
 - b. All hose and other connections shall be installed, handled and stored so that no contamination is created. (**590.005; FC 5-303.12; FC 5-304.13**)
 - c. If approved by the regulatory authority, water supplied to an MFE need not be under pressure. If no permanent water supply is available, the MFE may access water through:
 - A supply of containers of commercially bottled drinking water
 - Closed portable water containers
 - An enclosed vehicular water tank
 - An on-premises water storage tank
 - Piping, tubing, or hoses connected to an adjacent approved source. (**590.005; FC 5-104.12**)
 - d. A MFE water inlet shall be three-fourths inch in diameter and provided with a hose connection of a size or type that will prevent its use for any other service. (**590.005; FC 5-303.13**)
- 3. WASTEWATER DISPOSAL**
 - a. Equipment and facilities that generate liquid waste must be disposed of in an approved manner. (**590.005; FC 5-403.11**)
 - b. Wastewater shall be disposed in an approved wastewater disposal system. (**590.005; FC 5-403.11**)
 - c. Wastewater must be removed from an MFE at an approved waste servicing area or by a sewage transport vehicle. (**590.005; FC 5-402.14**)
 - d. Wastewater may not be dumped onto the ground surface, into waterways, or into storm drains, but shall be collected and dumped into an approved receptacle. (**590.005; FC 5-402.14**)

RESOURCES

- MA Department of Public Health, 2018, MA Regulation 105 CMR 590.000 - *Minimum Sanitation Standards for Food Establishments – Chapter X* - <https://www.mass.gov/lists/retail-food>
- 2013 FDA Food Code with Annex - <https://www.fda.gov/media/87140/download>
- U.S Food and Drug Administration, 2014, *Conference for Food Protection Recommended Guidance for Mobile Food Establishments* - <http://www.foodprotect.org/guides-documents/>