



BOH Forms: #39 Kitchen Update Plan Review

Board of Health and Local Health Department Standard Operating Procedures (SOP)

This **Checklist includes all items that should be considered when a Food Establishment upgrades or builds a new kitchen.** It is designed to be used in tandem with other BOH Job Aids. **Remember: BOH always has the final say on all requirements.**

Food Establishment Kitchen Upgrade Check List: Refer to 105 CMR 590 for details.

- ✓ A clear and precise plan must be submitted to the Board of Health at least 60 days before beginning construction. Include description/specs of the work, proposed menu, size of operations, finishes, sinks, ventilation, equipment, etc. A permit and pre-opening inspection are required for all substantive changes to your food operation.
- ✓ Everything begins with the proposed menu, a description of the type of operation, and the expected size and type of population to be served.
- ✓ Substantial renovations and all new kitchen installations will require a Building Permit in addition to a Board of Health permit. Plans must be submitted to the Department of Inspection Services/Board of Health for approval before work begins. **All work must be inspected by the Board of Health and/or appropriate authority having jurisdiction (Building, Fire, Gas, Plumbing, Electrical inspectors) prior to opening.**
- ✓ A 1000-gallon (minimum) grease trap must be placed outside of the building if building is served by a septic system. Buildings on community sewer must install a grease trap, which complies with the plumbing code.
- ✓ List types of materials to be used on floors, walls, ceilings, counters, and countertops. All materials must be non-absorbent and easily cleanable.
- ✓ Most food establishments require a 3-bay sink, food prep sink, hand-wash sink and mop sink all with proper airgaps and backflow prevention devices on any attached hoses.
- ✓ The three-bay sink must be stainless with drain board, and a grease interceptor per the State Plumbing Code.
- ✓ All Food Establishments require hot and cold potable water.
- ✓ If cooking, grilling, or frying on premises a ventilated hood system must be installed. Size of hood is determined by the Fire Department. Hoods must be cleaned by a licensed professional at least twice a year.
- ✓ Male and female bathrooms with self-closing doors, vents (mandatory), a window with screens (optional), and sinks with liquid soap and paper towels/hand dryers are required for Food Establishment Staff. Public Restrooms may be required by the plumbing or building codes.
- ✓ Screens must be installed on all windows and kept in good repair. A self-closing screen door will be installed.
- ✓ All refrigerators and freezers must have thermometers, placed to be easily seen and read and be in secure locations.
- ✓ Adequate facilities for the disposal of trash and garbage must be provided.
- ✓ Smoking is not permitted in any indoor restaurant or bar.
- ✓ All facilities must meet Americans with Disabilities Act (ADA) standards.
- ✓ A site plan must be provided showing the location of the dumpster, grease storage facility (If one is to be used), name of waste hauler, and name of grease rendering company. Upon approval of the site plan, the owner must install a non-absorbent pad for the dumpster prior to opening.
- ✓ **Food service training certifications such as Food Protection Manager are required for food service operations by the State Sanitary Code for Food Establishments/FDA Food Code (105 CMR 590.000).** These regulations may not be applicable in all situations such as for some non-profits. Every Food Establishment requires a knowledgeable person in charge (PIC)
- ✓ **Allergen Awareness training and postings are required for all Food Establishments unless exempted by BOH.**
- ✓ **Ensure all other permits such as building, fire, plumbing, electrical, and zoning applied for and complied with.**
- ✓ **A Common Victualer’s License or Peddler’s License in addition to the Board of Health permit might be required.**

Space and Square Footage

Guidelines for the size of kitchen and dining room vary greatly depending on many different factors, but food design consultants commonly allot the following space requirements for table service operations.

The total operation has 15 to 30 square feet per seat.

Dining room is a maximum of 2/3 of the total operation square footage.

1. Massachusetts Building code specifies not less than 15 square feet per diner.

Kitchen (back of the house) is 1/3 of total operation or 1/2 of dining room

Basic breakdowns of the space requirements in the kitchen area:

| | | | |
|------------------|--------|---------------------|-----|
| Dry food storage | 10-14% | Cooking/Production | 8% |
| Walk-in coolers | 5.7% | Traffic aisles | 16% |
| Walk-in freezers | 5-7% | Warewashing | 5% |
| Receiving | 5% | Refuse storage | 5% |
| Preparation | 14% | Employee facilities | 15% |
| Baking | 10% | Miscellaneous | 2% |

☐ Refrigeration

TOTAL REFRIGERATION SPACE

| Number of Meals Served | Daily Recommended Capacity |
|------------------------|----------------------------|
| 75 to 150 | 20 cubic feet |
| 150 to 250 | 45 cubic feet |
| 250 to 350 | 60 cubic feet |
| 350 to 500 | 90 cubic feet |

REACH-IN REFRIGERATION

| Seats | FREEZER | | REFRIGERATOR | |
|-----------|---------|----------------|--------------|----------------|
| | Number | Size | Number | Size |
| 0 - 50 | 1 | 50 cubic feet | 2 | 100 cubic feet |
| 50 - 100 | 1 | 75 cubic feet | 3 | 150 cubic feet |
| 100 - 175 | 2 | 100 cubic feet | 3 | 225 cubic feet |
| 175 - 250 | 2 | 100 cubic feet | 3 | 225 cubic feet |
| 250 - 500 | 2 | 150 cubic feet | 4 | 300 cubic feet |
| 500 - 750 | 2 | 150 cubic feet | 5 | 375 cubic feet |

WALK-IN REFRIGERATION

| Seats | FREEZER | | REFRIGERATOR | |
|-----------|---------|-----------------|--------------|-----------------|
| | Number | Size | Number | Size |
| 0 - 50 | None | | None | |
| 50 - 100 | 1 | 100 square feet | 1 | 100 square feet |
| 100 - 175 | 1 | 140 square feet | 2 | 200 square feet |
| 175 - 250 | 1 | 180 square feet | 2 | 240 square feet |
| 250 - 500 | 1 | 180 square feet | 3 | 380 square feet |
| 500 - 750 | 2 | 240 square feet | 3 | 520 square feet |

A walk-in refrigerator is usually recommended for larger Food Service/Food Establishment operations. It is in addition to the reach-in refrigerator needed by most operations. Walk-in refrigerators and freezers usually require about 5% to 7% of your kitchen floor area

The size of your dry storage area usually will be from 10 to 14% of the floor area of your kitchen. This is usually equal to the space occupied by your walk-in coolers and walk-in freezers. Proper dry food storage is essential to the prevention of food-borne illnesses and maintenance of food quality.

☐ Equipment Spacing

The following table is often used as a guide for spacing equipment:

| LENGTH OR DEPTH OF EQUIPMENT | DISTANCE FROM WALL OR OTHER STATIONARY EQUIPMENT WHEN BOTH ENDS ARE OPEN | DISTANCE FROM WALL OR OTHER STATIONARY EQUIPMENT WHEN ONE END IS OPEN |
|------------------------------|--|---|
| 0-24 inches | 8 inches | 8 inches |
| 25-48 inches | 10 inches | 10 inches |
| 49-72 inches | 12 inches | 12 inches |
| 73-96 inches | 14 inches | 24 inches |
| 97-120 inches | 16 inches | 24 inches |

Aisles and working spaces between units of equipment and walls must be unobstructed and of sufficient width to permit employees to perform their duties without contamination of food or food contact surfaces.

The aisle space generally recommended for various work areas is listed below:

| <u>Description of Space</u> | <u>Aisle Width</u> |
|--|--------------------|
| Single aisle with limited equipment | 30 to 36 inches |
| Double aisle with limited equipment | 42 to 54 inches |
| Single aisle with protruding equipment | 42 to 54 inches |
| Double aisle with protruding equipment | 54 to 66 inches |
| Aisle with little traffic | 36 to 48 inches |
| Aisle with major traffic | 48 to 72 inches |

Any device, equipment, or apparatus used in the preparation or storage of food and having a drain must have such drain properly air gapped. (Examples: Ice machines, ice bins, steam kettles, walk-in coolers and freezers and proof boxes.)

All utensils and equipment must be so stored as to protect them from dirt, dust, splash, overhead leakage, and other contamination. Otherwise, the effect of cleaning and bactericidal treatment is erased. Equipment must not be located under exposed or unprotected sewer lines or water lines, open stairwells, or other sources of contamination.

Storage of utensils will vary, depending upon the type and size of Food Service/Food Establishment operation planned. But in general, observe these principles:

1. Provide a definite storage space for each type of utensil, so that the rule “a place for everything and everything in its place” can be followed.
2. See that the various storage areas are adequate for the utensils. The utensils should be conveniently close to the area where they are to be used. One utensil drawer for each employee or one drawer for each four (4) linear feet of work table.
3. Do not store utensils on the floor.
4. Provide hooks for large utensils such as pots and pans. Hooks should be well away from splash and spray.
5. For frozen dessert scoops, provide a dipper well with running water.
6. Provide a knife rack in each preparation area.
7. Tableware is stored so that the handle of the knife, fork or spoon is presented to the employee or consumer. Normally you need 2 to 3 settings of tableware per seat.

☐ Hot Water Supply

Hot Water Supply

The hot water supply shall be sufficient to satisfy the continuous and peak hot water demands of the establishment. Hot water for hand washing shall be of a temperature of at least 110°F. Hot water for mechanical dishwashing must be 150°F-165°F for washing and 165°F-180°F for sanitizing. The temperature of the wash solution in spray-type ware washers that use chemicals to sanitize may not be less than 120°F. The water temperature for manual hot water sanitization must be at least 171°F. For purposes of sizing the hot water generating capability, assume a supply temperature requirement of 140°F to each fixture and to the mechanical dishwashing machines. In the absence of specific hot water usage figures for equipment, the following chart may be used to provide an approximation:

| Equipment Type | Gallons Per Hour | |
|---|------------------|-----|
| | High | Low |
| Vegetable sink | 15 | 15 |
| Single pot sink | 20 | 15 |
| Double pot sink | 40 | 30 |
| Triple pot sink | 60 | 45 |
| Pre-rinse for dishes-shower head type | 45 | 45 |
| Bar sink-three compartment | 20 | |
| Bar sink-four compartment | 25 | |
| Chemical sanitizing glass washer | 60 | |
| Lavatory | 5 | 5 |
| Cook sink | 10 | 10 |
| Hot water filling faucet | 15 | 15 |
| Bain Marie | 10 | 10 |
| Coffee urn | 5 | 5 |
| Kettle stand | 5 | 5 |
| Garbage can washer | 50 | 50 |
| Nine and twelve pound clothes washer | 45 | 45 |
| Sixteen pound clothes washer | 60 | 60 |
| Employee shower | 20 | 20 |
| High - To be used when multi-use eating utensils are utilized | | |
| Low - To be used in carry-out food operations where single service eating utensils are utilized | | |

Notes:

Other

REQUIRED:

- Area and method for storage of toxic materials and labeling.
- Area for cleaning tools and supplies storage.
- Area for storage of employees' personal belongings.
- Exterior walking and driving surfaces.
- Method for securing pressurized tanks.

Toxic or poisonous materials consist of the following categories:

- (a) Pesticides
- (b) Detergents, sanitizers, corrosives, and other chemicals
- (c) Flammables

Mass Food Establishment Requirements Checklist: BOH may pass more stringent requirements at any time.

| | All Commercial Catering/Mobile FE, Restaurants | Institutions Camps, Schools Hospitals/LTC | Non-Profit Event Free Food Distribution | Non-Profit Multiple Events Non-TCS Foods | Non-Profit Fundraisers TCS Foods | Non-Profit Temporary Food Event | Residential Kitchen, NP FD Free- Soup Kit. |
|-------------------------------------|--|---|---|--|----------------------------------|---------------------------------|--|
| Kit/FE Permits | Yes | Yes | Yes | No | Yes | Yes | No |
| Fees | Yes | Yes | No | No | Yes | Yes | No |
| Inspections | Yes | Yes | Yes | May | Yes | Yes | No |
| Choke Saver TR | Yes, 25+ seats | Yes, 25+ seats | Yes, 25+ seats | Yes, 25+ seats | Yes, 25+ | Yes, 25+ | N/A |
| Allergen Awareness** Training/Signs | Yes | Yes, or needs a written plan | Yes, or needs a written plan | Yes | Yes | No, recommended signage. | No, Soup Kitchen needs written plan. |
| Consumer Advisory Signs | Yes | Yes | Yes | N/A | Yes | Yes | N/A |
| Food Manager Training*** | Yes | Yes | Yes | No* | Yes | No* | No* |
| Consumer Postings, Disclosures | Display Permit & Disclosures | Display Permit & Disclosures | Post Sign: <i>Food prepared in kitchens not regulated or inspected by the Board of Health</i> | Display Permit & Disclosures | Display Permit & Disclosures | Display Permit & Disclosures | N/A |

*Food Managers Training, Allergen Awareness, Consumer Advisories are good practices and can be required by local BOH regulations. BOH can require additional Food Employee training at any time as deemed necessary for compliance.

**Allergen Awareness Notice: *Before placing your order, please inform your server if a person in your party has a food allergy.*

*****Every Food Establishment, including non-profits, must have a Knowledgeable Person in Charge (PIC) at all times.**

<http://www.foodprotect.org/media/guide/Temporary%20Food%20Establishment%20Guidance%20Final%202011.pdf>
<http://www.mass.gov> Food Establishments at Events and Farmers Markets Questions and Answers (07/25/19) (mass.gov)

Key Reminders: Goal is safe food.

1. Call your Board of Health when planning the Temp Food Event, at least 30 days in advance.
2. Keep the menu simple and foods easy to transport and serve.
3. Plan for heat, rain, sun, dust, wind, trash, wastewater, pests and crowds.
4. Must have a handwash sink within 25 feet if any food prep. Sanitizer wipes only good when serving only prepackaged foods.
5. Must have access to toilets with handwash sinks for staff.
6. Keep foods, hot, cold, clean, and covered. If in doubt, throw it out. Discard any food not still frozen at the end of the day.
7. Make Safe Food your Priority.

Notes:

Note: *Code References: Adapted from Tir-Town Health Department Guide

Required Documents:

- Proposed Menu
- Floor Plan
- Narrative indicating type of food preparation, storage, refrigeration, etc. that will be taking place in the establishment
- Approved water supply (5-101.11) Public
- Private
- If private attach copy of key documents.
- Sewage Disposal: Public
- Private (5-403.11) All sewage shall be disposed of by a public sewerage system or by a sewage disposal system constructed and operated in accordance with applicable law and regulation. If not public, attach copy of key documents.
- If applicable to your business: Food Protection Manager (590.002) (C), Allergen Awareness Certificate (590.011) (C) and Anti-choking training (590.011) (A.)

Physical Facility

Lavatory Facilities

- Located for convenient use by employees (6-402.11)
- Soap next to sink(s); paper towel dispenser or hand drying device conveniently located next to each lavatory. (603.11, 6-301.12)
- Toilet room(s) ventilated (6-305.11)

Food Storage and Serving Facilities

- Dry storage, shelving, platforms, cabinets, racks, and carts used for holding or placing food, single serve items, dry goods, and sanitized equipment and utensils shall be maintained at least six inches above the floor in a dry clean location in a way that protects them from contamination by splash, dust and other means. They will be positioned and installed in a manner that permits easy cleaning of the storage area. (4-903.11)
- Food contact surfaces or fixed equipment shall not be placed under exposed sewer lines, not-potable water lines or any other prohibited article under this section of the code. This does not apply to fire protection sprinkler heads that may be required by law. (4-903.12)
- Sufficient cooler, freezer, hot holding storage.

Floors, Walls and Ceilings

- Walls, floors and ceilings are easily cleanable, smooth, durable and non-porous. Walls and floors sealed (less than 1/32" gap.) (6-101.11)
- No horizontal utility lines or pipes are unnecessarily exposed on wall or ceiling. Utility, service and conduit lines are installed in such a way to allow cleaning of the floor. (6- 201.12)

Three-Bay Sink

- Three-bay sink large enough to accommodate the largest piece of equipment. (4-301.12)
- Drainboard or easily movable dish tables of adequate size shall be provided for proper handling of soiled utensils prior to washing and for cleaned utensils following sanitizing and shall be located so as not to interfere with the proper use of the dishwashing facilities (4-301.13)

Mechanical Dishwasher

- Temperature required for washing, rinsing and sanitizing. (4-204.113)(A)
- Sinks and drainboards of machines shall be self-draining. (4-204.119)

Plumbing

- No exposed overhead drainage lines over food areas. (14.1, 5.3)
- No cross connections (5-205.12)
- Back-flow devices installed, outside etc. (5-202.14)
- Back-flow devices on all hose faucets. (5-202.14)

Garbage and Refuse Disposal

- Grease trap area easily accessible for cleaning. (5-402.12)
- Covered, cleanable dumpster/garbage containers. (5-501.15) (A)
- Dumpster has a plug. (5-501.114)
- Garbage and refuse storage rooms shall be constructed of easily cleanable, nonabsorbent, washable materials. (5-501.13)
- Outside storage on approved surface. (5-501.11)

Insect and Rodent Control

- Building is vermin-proof. (Sealed openings around pipes, conduits etc.) (6-202.15)
- Screening for doors, windows, louvers, 1/16" or less. (6-202.15) (D) (1)

Food Service Equipment

- Equipment is durable, easily cleanable. (4-201.11)

Lighting

- Foot Candles (FC) in food prep, dishwashing areas, bar, beverage service islands, equipment and utensil storage areas and toilet rooms. (603.11) (B)
- Ten FC in walk-in, dry food storage, dining and all other areas. (6-303.44) (A)
- Shielded (covered) light fixtures are required in food prep areas, food and utensil storage areas, display areas (bar/liquor storage.) (6-202.11) (B)

Ventilation

- All rooms shall have sufficient ventilation to keep them free from excessive heat, steam, condensation, vapors, obnoxious odors and fumes. (6-305.11)
- Ventilation hoods and devices shall be designed and used to prevent grease or condensation from collecting on walls and ceilings and from dripping into food or onto food contact surfaces. (4-204.11)

Miscellaneous

- Cleaning equipment storage: Maintenance of cleaning tools such as brooms, mops, vacuum cleaners and similar equipment shall be maintained and stored in a way that does not contaminate food, utensils, equipment, or linens, and shall be stored in an orderly manner to facilitate the cleaning of that storage itself. (7-201.11)
- Establishments shall have at least one utility sink or curbed cleaning facility that shall be equipped with hot and cold running water, a floor drain and be used for the cleaning of mops or similar wet floor cleaning tools and for the disposal of mop water or similar liquid wastes. (5-203.13)