

**WESTERN UPPER PENINSULA HEALTH DEPARTMENT
PLAN SUBMITTAL INSTRUCTIONS FOR NEW OR REMODELED
FOOD SERVICE ESTABLISHMENTS**

Congratulations! You are proposing to build or remodel a food service establishment in the western Upper Peninsula of Michigan. Submit your plan review package to the Western Upper Peninsula Health Department office in Hancock where the plans will be reviewed. **All of the following items must be completed and compiled into a single package or the plan review may get delayed as additional material is requested.** For further information, see the plan review manual at http://wupdhd.org/env_health/food_service_review.html.

1. **Completed Plan Review Application** and any necessary plan review fees.
 - Plan review fees payable to the WUPDHD, are as follows:

New Construction, Extensive Remodeling, or Conversion	-\$580
50% increase If plan review follows a stop work order	\$870
Special Transitory Food Units (STFU)	-\$177
Limited Remodeling Existing Facility	-\$175
50% increase If plan review follows a stop work order	\$264
2. **General information sheet** summarizing the proposed project.
3. **Completed Plan Review Worksheet (blank copy attached)**
 - Worksheet and guidance manual copies are available from any local health department office, the internet at: <http://www.michigan.gov/mda> or on the health department's website referenced above.
4. **Menu** including the written consumer advisory for animal foods offered in undercooked or raw form with applicable disclosure and reminder statements.
5. **Standard Operating Procedures (SOP's)** appropriate to your operation shall be submitted prior to opening. See the attached SOP instruction sheets.
6. **One Complete set of plans.** Provide scaled plans (1/4" per foot is a normal, easy to read scale). Show:
 - Proposed layout, with equipment identified. Label sinks and prep tables with their intended use.
 - Mechanical plan (i.e. make-up air systems, air balance schedule and cooking ventilation systems: including hood, duct and exhaust fans).
 - Plumbing: Sinks for handwashing, food preparation and dishwashing, dishmachines, hot and cold water outlets, hot water equipment, water heater, sewer drains, grease traps and floor drains / sinks.
 - Construction materials of such items as custom cabinets and any other built-in items.
 - Interior room finish schedules.
 - Lighting plan, indicating which lights are shielded.
 - Site Plan, including:
 - Details of outside garbage storage area and containers.
 - On-site water well and sewage disposal system data

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7. Specifications

- Include manufacturer's specifications for each piece of equipment. Minimum information for each piece of equipment includes the following (note: the manufacturer's specification or "cut" sheet typically provides most of this information):
 - Type
 - Manufacturer
 - Model number
 - Dimensions
 - Performance capacity
 - Indicate how equipment will be installed (i.e. on leg or wheels, fixed or flexible utility connections)
 - Indicate which items are used equipment and what equipment is NSF approved or equivalent.
 - Sanitation Standard Operating Procedures (SSOP'S): Include any available cleaning and maintenance instructions for food processing, cutting and grinding equipment.

Please Note - Stop Work orders must be applied (rule 289.6113 Michigan Food Law of 2000) if construction is started before plans are approved in writing by the health department.

**WESTERN UPPER PENINSULA HEALTH DEPARTMENT
APPLICATION FOR FOOD SERVICE ESTABLISHMENT PLAN REVIEW**

_____ New Construction

Fee Enclosed _____

_____ Remodeling of Existing Food Service Establishment

_____ Conversion of Existing Building to a Food Service Establishment

Owner Information	
Name: _____	
Address: _____	

Telephone: _____	
Fax: _____ E-Mail: _____	

Food Equipment Supply Co.	
Name: _____	
Address: _____	

Telephone: _____	
Fax: _____ E-Mail: _____	

Architect Information	
Name: _____	
Address: _____	

Telephone: _____	
Fax: _____ E-Mail: _____	

General Contractor	
Name: _____	
Address: _____	

Telephone: _____	
Fax: _____ E-Mail: _____	

Which of the above will serve as the primary contact? _____

Which of the above should correspondence be mailed to? _____

Proposed Construction start date: _____ Proposed opening date: _____

In addition to health department approval of the proposed new construction, conversion, or remodeling plans, additional permits such as building, plumbing, electrical, mechanical, on-site water supply, and on-site sewage disposal may be required prior to beginning construction. The Western Upper Peninsula Health Department issues permits for on-site water supply and sewage systems. Contact the Michigan Department of Consumer and Industry Services Mechanical Division (application enclosed in this packet) and your local building department to obtain other construction permits. Indicate that applications for construction permits have been submitted for the following:

_____ Engineered plans have been submitted to the appropriate Mechanical authority or the Michigan Department of Consumer and Industry Services – Mechanical Division for a construction permit to install a commercial exhaust system.

_____ Building, plumbing, and electrical permits have been applied for.

Enclose with the completed application:

_____ Completed worksheet

_____ One set of plans drawn to scale

_____ One set of specifications

_____ Plan review fee

_____ General Information sheet

_____ Standard Operating Procedures

_____ One copy of menu



Michigan Department of Agriculture

Food Establishment Plan Review Worksheet

To be completed by the operator and submitted to the local health department
or Michigan Department of Agriculture regional office
that will be conducting the plan review.

Establishment

Name: _____
Address: _____

City, State, Zip: _____

Pages 6-10 ask structural and equipment questions that the operator may wish to have the contractor or architect complete.

Refer to the food establishment plan review manual for technical assistance. The manual is available from your reviewing agency or by visiting www.michigan.gov/mda, keyword: Food Plan Review - Industry.

Information contained in the plans may be referenced and does not have to be repeated in the worksheet (i.e. see plan sheet 3a, #6)

Food Manager Knowledge

Under the Michigan Food Law of 2000, retail food establishments are required to have a person in charge (PIC) during all hours of operation.

1. Check all that apply

- A designated person in charge, that can demonstrate knowledge of: foodborne disease prevention, application of food safety (HACCP) principles, and the requirements of the Food Code, will be available during all hours of operation. (REQUIRED)

- A certified food manager will be provided. (REQUIRED in Wayne, Oakland, Livingston & Macomb Counties)
- SOP's- I understand that standard operating procedures must be submitted and reviewed prior to opening if my establishment is new or remodeled with operation or menu changes.
- There is a written policy that excludes or restricts food workers who are ill or have infected cuts or lesions.* (OPTIONAL)

- A written food safety (HACCP) plan will be provided.* (Only required under certain circumstances)
- Formal training program for new or existing staff will be provided.* (OPTIONAL)
- Animal based foods, such as meat, poultry, fish, shellfish or eggs served raw, or undercooked or not otherwise processed to eliminate pathogens.**

**If you checked this item, then the customer must be informed by means of a written disclosure, at the point of ordering, that a particular menu item contains raw or undercooked foods of animal origin and a reminder that identifies the increased risk of foodborne illness when consuming these foods. The disclosure and reminder must be made whether the food is normally prepared undercooked or is prepared undercooked only at the customer's order. Submit a copy of the disclosure and the reminder and state how it will be conveyed to the consumer. For further clarification please contact your reviewing health agency or read the consumer advisory guidance document at <http://www.michigan.gov/mda>, keyword: MFLeduc,

Food Preparation Review

See manual parts 1 & 3

2. How Will Potentially Hazardous Food be Thawed? (Check all that apply)

<u>Thawing Method</u>	Foods less than 1" thick	Foods more than 1" thick
Refrigeration		
Running water (less than 70°F)		
Microwave as part of cooking process		
Cook from frozen		
Other:		

7. **Cooling Potentially Hazardous Food: List foods** that will be cooled using each of the following methods. Foods must be cooled to 41°F within 6 hours (140°F to 70°F in 2 hours and 70°F to 41°F in 4 hours). More than one method may be used.

A. Shallow pans in refrigerator: _____

B. Ice baths: _____

C. Volume reduction (i.e. quartering a large roast): _____

D. Rapid chill devices (i.e. blast freezers): _____

E. Ice paddles: _____

F. Other: _____

8. Food Preparation

A. List foods that will be prepared a day or more in advance of service or sale.

B. How will employees avoid bare-hand contact with ready-to-eat foods? (Check all that apply)

Disposable gloves

Suitable utensils

Deli tissue

Other: _____

C. Will produce be cleaned on-site? Yes No

D. If C is yes, describe which sink(s) will be used for food preparation.

Date Marking: When potentially hazardous food is ready-to-eat and will be kept under refrigeration for more than 24 hours after preparation / opening, a last date of use must be placed on the item.

E. Will the establishment have food items that must be date marked? Yes No

If yes, describe the date marking system that will be used or provide written standard operating procedures.

9. **Catering/Off-Site/Satellite:** complete if establishment will cater foods to another location.

A. List menu items to be catered:

B. Maximum number of catered meals per day will be _____

C. How will hot food be held at proper temperature during transportation and at the remote serving location? _____

9. Catering/Off-Site/Satellite Continued

D. How will cold food be held at proper temperature during transportation and at the remote serving location? _____

E. What types of vehicles will be used to transport food?

F. What types of sneeze guards or food protection devices will be used? (See manual part 4)

Dishwashing
See manual part 8

10. Dishwashing methods (check all that apply) ___ Dishmachine ___ Sink

Dishwashing Sinks	Length (inches)	Width (inches)	Depth (inches)
A. Sink 1, Size of compartments			
B. Sink 2, Size of compartments			
C. Sink 3, Size of compartments			

D. What is the largest item that will have to be washed in a sink and its size?

E. List the location of all garbage disposals:

General

11. Will employee dressing rooms be provided? ___ Yes ___ No
See manual part 16.

12. If no, describe how personal belongings will be stored:

13. Check which of the following will be used on-site: ___ Washer ___ Dryer

14. Describe what will be laundered on-site: _____

15. What type of mop sink will be provided (i.e. curbed floor drain, mop sink on legs, etc)? See manual part 8.

Room Finish Schedules
Fill in materials to be used (See manual part 10)

Area	Floor	Coving*	Wall	Ceiling
16. Preparation				
17. Cooking				
18. Dishwashing				
19. Food Storage				
20. Bar				
21. Dining				
22. Employee Restrooms				
23. Dressing Room				
24. Walk-In Refrigerator				
25. Walk-In Freezer				
26. Garbage Room				
27. Janitor Closet				
28.				
29.				
30.				

*List the material that will be used to provide a smooth, rounded and cleanable surface where the floor and wall joins.

Note: please explain abbreviations.

Water Supply
See manual part 5

31. Will the water supply be: ___Municipal ___Existing on-site ___New on-site
32. If an on-site water supply is being used, is the local health department in the process of approving? ___ Yes ___ No*

Sewage Disposal
See manual part 5

33. Will the sewage disposal be: ___ Municipal ___Existing on-site ___ New on-site
34. If an on-site sewage system is being used, is the local health department or Michigan Department of Environmental Quality in the process of approving? ___ Yes ___ No*

* It is recommended that you contact your local health department to begin the approval process.

Insect and Rodent Control
See manual part 13

35. Will outside doors be self-closing? Yes No
36. Will the facility have a drive-thru or walk-up window? Yes No
37. If 36 is yes, describe how insects will be kept out (i.e. self-closer, air curtains, etc.)

38. Are other openable windows screened? NA Yes No
39. Will openings around pipes, electrical conduits, chases and other wall perforations be sealed? Yes No
40. Will garage-style or loading bay doors be present? Yes No
41. If 40 is yes, how will the loading doors be protected against vermin entry?

Solid Waste Storage
See manual part 17

42. Outside Storage

- A. What type of storage will be used?* Compactor* Dumpster* Cans
- B. What type of surface will be under the container? _____
- C. What is the minimum pick-up frequency? _____

*Remember to show details on site plan, including unit location and slope of surface under the unit.

43. Inside Storage

- A. Please **SHOW** locations of trash containers on floor plans and describe how garbage, boxes, etc. will be stored inside: _____

- B. Describe any inside storage or cleaning area (i.e. garbage can cleaning area):

- C. Will any compactors or dumpsters be located inside? If yes, show on plans. Yes No
- D. Describe any area where damaged merchandise returned for credit to vendor will be stored:

- E. Describe how waste grease will be handled and stored: _____

- F. Describe how and where recyclables will be stored: _____

- G. Check the types of materials that will be recycled:
 Glass Metal Paper Cardboard Plastic

Plumbing Cross-Connections
See manual part 12

The following technical information is needed on the proposed plumbing. This section is best completed by a qualified plumber, architect or engineer. Be sure to include all devices, equipment and fixtures that have cross-connection protection. Remember to complete both the water supply and waste side (i.e. a dishwasher may have an AVB on the water supply and an air-gapped drain).

Fixture	Sewage Disposal			Water Supply					
	Air Gap	Air Break	Direct Connect	AV B	PVB	RPZ	VD C	HB	Air Gap
44. Dishwasher									
45. Glasswasher									
46. Garbage grinder									
47. Ice machines									
48. Ice storage bin									
49. Mop sink									
50. 3 compartment sink									
51. 2 compartment sink									
52. 1 compartment sink									
53. Steam tables									
54. Dipper wells									
55. Hose connections									
56. Refrigeration condensate drain lines									
57. Beverage dispenser with carbonator									
58. Water softener									
59. Potato peeler									
60. Walk-in floor drain									
61. Chinese range									
62. Detergent feeder on faucet									
63. Outside sprinkler or irrigation system									
64. Power washer									
65. Retractable hose reel									
66. Toilet									
67. Urinal									
68. Boiler									
69. Bain-marie									
70. Espresso machine									
71. Combi-style oven									
72. Kettle									
73. Rethermalizer									
74. Steamer									
75. Overhead spray rinse									
76. Hot water dispenser									
77.									
78.									
AVB = atmospheric vacuum breaker				HB = hose bib vacuum breaker					
PVB = pressure vacuum breaker				VDC = vented double check valve					
RPZ = reduced pressure principle backflow preventer									

Formula Information

Several calculations are required to determine if there will be adequate hot water, ventilation, dry storage space and refrigerated storage space. The information requested on the following two pages provides the necessary data for performing calculations. See the plan review manual for formulas and directions.

79. Hot Water (see manual part 9)

List each type of plumbing fixture that uses hot water	# fixtures
Handsinks	
Bathroom Sinks	
1 Compartment Sink	
2 Compartment Sink	
3 Compartment Sink	
Vegetable Sink	
Overhead Spray Rinse	
Bar Sink ___ 3 compartment ___ 4 compartment	
Cook Sink	
Hot Water Filling Faucet	
Bain-marie	
Coffee Urn	
Kettle Stand	
Garbage Can Washer	
9 & 12 lb. Clothes Washer	
16 lb. Clothes Washer	
Employee Shower	
Mop Sink	
Dishmachine ___ hot water ___ chemical	
Dishmachine Make & model: _____	
Other:	
Other:	

80. **Water Heater #1** Manufacturer: _____ Model number: _____
- A. Hot water heater proposed size: Electric _____ KW Thermal Efficiency: _____ %
 Gas _____ BTU's
- B. Hot water heater storage capacity: _____ gallons
- C. Hot water heater recovery rate: _____ gallons per hour (@ 100° rise)

Attach information for any additional water heaters. Specify what area each water heater services and whether or not units will be installed in parallel.

81. Do hot water heater(s) serve any non-food equipment areas? If yes describe: _____

82. **Dishmachine Booster Heater** ___ KW ___ BTU Make _____ Model # _____

83. Refrigerated and Dry Food Storage (see manual parts 3 & 7)

It is **essential** that a reliable estimate be made of the number of customers that are served or buy food between deliveries, in order to calculate dry and refrigerated storage capacities.

- A. # meals or people served per day = _____
- B. # days between deliveries = Dry Food _____ Refrigerated Items _____
- C. # meals between deliveries (AxB =) Dry Food _____ Refrigerated Items _____

83. (cont'd.) Please describe any assumptions made in determining the meal quantity estimate:

84. Refrigerated Storage (see manual part 3)

Walk-in Item #	**Interior Usable Height (ft)	Interior Length (ft)	Interior Width (ft)

*Upright Item #	Interior Depth (in)	Interior Width (in)	Interior Height (in)

*Working, preparation and line refrigerators should not be included. Only storage units.

85. Dry Storage (see manual part 7)

Storage Rooms*

**Usable room height (ft)	Interior Length (ft)	Interior Width (ft)

*Please note the location of any auxiliary storage (i.e outside storage).

**To determine usable height, determine height from floor to ceiling, then subtract height of food off floor (usually 6") and height of food from ceiling (usually 12-18").

Or if there is no dry storage room proposed

For full height shelves

Total Shelving Length (ft)	Shelving Width (ft)

86. Ventilation Air Balance Schedule (see manual part 15)

Make-up air unit #	CFM*	Ventilation exhaust hood # or name	CFM*
		Toilet exhaust	
		Other exhaust	
Total Make-Up Air		Total Exhaust	

*CFM=cubic feet per minute

Food Establishment Standard Operating Procedures

Who must have standard operating procedures?

- All new food establishments, except vending locations.
- Remodeled food establishments that change menu or operation.

What are standard operating procedures?

- Procedures specific to your operation that describe the activities necessary to complete tasks in accordance with the Food Code. The procedures are used to train the staff members responsible for the tasks.
- Three purposes for establishing SOP's for your operation are: to protect your products from contamination from microbial, chemical, and physical hazards; to control microbial growth that can result from temperature abuse; and to ensure procedures are in place for maintaining equipment.

Why must procedures be submitted?

- Michigan's food law requires standard operating procedures to be established prior to opening.

How must procedures be developed?

- Procedures are mostly for use by managers and employees. Develop procedures in the language, style and format best for the establishment. An English copy of the procedures is needed for the plan reviewer.
- For those that need assistance, see the help section.

What procedures must all establishments submit?

- Handwashing.
- Personal hygiene, including cuts and sores.
- Preventing bare hand contact with ready-to-eat food (gloves, utensils, etc.).
- Employee illness.
- Purchasing food from approved sources.
- Cleaning and sanitizing food contact surfaces.

What procedures must all establishments submit when applicable to their operation?

- Cross-contamination prevention.
- Warewashing.
- Date-marking ready-to-eat, potentially hazardous food.
- Using time only (not time and temperature) as a method to control bacterial growth.
- Time and temperature control for thawing potentially hazardous food.
- Time and temperature control for cooking potentially hazardous food.
- Time and temperature control for cooling potentially hazardous food.
- Time and temperature control for reheating potentially hazardous food.
- Time and temperature control for hot holding potentially hazardous food.
- Time and temperature control for cold holding potentially hazardous food.
- Special transitory food units (SFTU's) only- water supply.
- Special transitory food units (SFTU's) only- wastewater disposal.

Once procedures are developed, where should they be sent and what happens to them?

- Procedures should be sent to the agency reviewing the plans as soon as they are ready.
- Procedures can be sent with the plans or may be sent later.
- Technically correct procedures must be in place by the pre-opening inspection.
- Plan reviewers will make sure the information in the procedures is correct. Be sure to leave enough time to make corrections. Contact your plan reviewer for help.
- Procedures should be kept on-site and used by the person in charge and employees.

Standard Operating Procedure (SOP)

Writing Help

For establishments that need help in writing a standard operating procedure, this section contains:

- Blank forms in a suggested format.
- Sample handwashing SOP.
- Suggested questions to answer, technical help and Food Code references for each required SOP. Michigan has adopted the 1999 FDA Model Food Code as law in Michigan.

Make copies as needed

Standard Operating Procedure

Establishment Name: _____

Subject:

What will be done and who will do it?

Who will make sure it's done and how?

How should problems be fixed?

What records will be kept?

Created (Date):

By:

Last Revised:

By:

**Standard Operating Procedure
Joe's Coney Dogs
SAMPLE**

Subject: Handwashing

What will be done and who will do it?

New employees must:

- Review this procedure.
- Watch the video "Effective Handwashing."
- Be trained by the team leader.
- Sign off on the new employee training checklist.

All employees must wash hands at labeled handsinks (2 in kitchen). DO NOT wash at dishwashing, food or mop sinks.

Handwashing steps are as follows:

- Use water as hot as you can stand.
- Soap hands and lower forearms.
- Scrub for 20 seconds.
- Rinse.
- Dry with paper towel.

When must all employees wash hands?

- At beginning of shift.
- After using toilet.
- After coughing, sneezing, using tissue or handkerchief, eating, drinking or using tobacco.
- Between touching raw food and ready-to-eat food.
- Between glove changes.
- After handling dirty dishes.
- After touching hair or any body part except clean hands and arms.
- During food preparation as often as necessary to prevent cross-contamination.
- After doing other activities that contaminate the hands, such as handling trash or chemicals.

Who will make sure it's done and how?

- Team leaders are expected to continually model appropriate handwashing practices for employees.
- Team leaders shall monitor employee handwashing.
- Dishwashing staff are to assure that handwashing stations, including bathrooms, are supplied with soap and paper towels.
- Team leaders shall monitor handsinks at least once per shift to assure that sinks have the necessary supplies. The day team leader shall assure that necessary supplies are in stock.

How should problems be fixed?

- Team leaders must immediately train and counsel employees who improperly or inadequately wash hands or don't keep handsinks supplied.
- Team leaders must notify owner of any handwashing problems that can't be solved through training and counseling.

What records will be kept?

- Complete new employee training checksheet.

Created (Date): 6/15/04 By: Joe Dawton, Owner
Last Revised: By:

For each standard operating procedure that may be required, questions to answer and technical information are listed.

Handwashing

Questions to answer

- What training will employees receive?
- What training will supervisors receive?
- What is the correct way to wash?
- When should employees wash?
- Where should employees wash or not wash?
- Who will keep sinks supplied with soap and paper towel?

Technical Help (See Food Code 2-301.12; 2-301.14; 2-301.15)

- All handsinks in bathrooms and kitchens must be labeled with a sign. Washing hands at dishwashing, mop or food sinks is not allowed.
- Handwashing steps are:
 - use water as hot as you can stand
 - soap hands and lower forearms,
 - scrub for 20 seconds,
 - rinse
 - dry with paper towel or hot air dryer.
- Hand sanitizers can be used after washing hands. Hand sanitizers may not be used to replace washing hands.
- All employees must wash hands:
 - at beginning of shift,
 - after using toilet,
 - after coughing, sneezing, using tissue, eating, drinking or using tobacco,
 - between touching raw food and ready-to-eat food,
 - between glove changes,
 - after handling dirty dishes,
 - after touching hair or any body part except clean hands and arms,
 - during food preparation as often as necessary to prevent cross-contamination, or
 - after doing other activities that contaminate the hands, such as handling trash or chemicals.

Personal hygiene

Questions to answer

- What personal hygiene steps are needed before an employee comes to work?
- What clothes or uniforms must employees wear to work?
- What must an employee do if they have a cut or sore on their hands, arms or face?
- Where can employees drink, smoke or eat?
- What employee training will be done?

Technical Help (See Food Code subpart 2-201.11(B)(2); 2-302.11; 2-303.11; 2-304.11; 2-401)

- Outer clothing of food employees must be clean.
- Any cuts, burns, boils, skin infections or infected wounds on a food handler should be covered with a bandage. Cover bandages on hands with gloves. Food handlers with bandages may need to be assigned to jobs that do not involve food contact.
- Eating, drinking or using tobacco can only be done in certain areas away from food or equipment. Employees may drink in the food preparation area if the drink has a cover that does not have to be touched (a cover and a straw often work well).

Preventing bare hand contact with ready-to-eat food

Questions to answer

- What ready-to-eat foods are served?
- How will hand contact with ready-to-eat foods be avoided? For each food, should an employee use utensils, deli tissue, spatulas, tongs, single-use gloves, or dispensing equipment?
- Are different types of single-use gloves needed for employees that do different jobs? Are only vinyl gloves being used to eliminate allergic reactions from latex gloves?
- Is avoiding bare hand contact with some foods not feasible? If you answered yes, will ready-to-eat food be touched with bare hands under a written policy that complies with the MDA Food Law?
- What employee training will be done?

Technical Help (See Food Code 3-301.11 and 3-301.12)

- Ready-to-eat foods are foods that are edible without washing, cooking or additional preparation. These are foods that are expected to be eaten as they are. Foods reheated per individual order are considered ready-to-eat.
- Food handlers may not touch ready-to-eat foods with their bare hands. Food employees can touch raw fruits and vegetables to wash them before they are cut.
- Some ways to avoid touching ready-to-eat food include using utensils, deli tissue, spatulas, tongs, single-use gloves, or dispensing equipment.
- Suppliers make many different types of gloves. Some are loose and some are tight fitting. Some have powder and some are powder-free. Some employees may have or may develop allergies to latex gloves. Consult your glove supplier for assistance.
- Avoiding the handling of some ready-to-eat foods may not be possible. When food employees must touch ready-to-eat food, the establishment must first have a 10-point written plan that meets Michigan's Food Law, section 6151.

Employee Illness

Questions to answer

- What personal health information should be asked of applicants?
- What personal health information should be required from new hires and existing employees?
- How are employees trained to understand and report illness?
- When employees report illness, under what conditions should they be restricted from food handling or excluded from the establishment?
- When can restricted or excluded employees return to work handling food?
- When must the health department be notified about an ill employee?

Technical Help (See Food Code subpart 2-201)

- The person in charge must notify the local health department when a food employee is diagnosed with an illness due to any of the **BIG FOUR**: Salmonella Typhi (Typhoid Fever), Shigella (Shigellosis), Escherichia Coli O157:H7, or Hepatitis A virus.
- Employees must report if they have any of the **BIG FOUR**. This includes applicants once they have been made a conditional employment offer. Employees must report if they have diarrhea, fever, vomiting, jaundice, sore throat with fever, or lesions containing pus on an exposed body part. Employees must also report if they have been exposed to or are suspected of causing a confirmed outbreak, of any of the **BIG FOUR**. They must also report if: a. they live with a household member who has any of the **BIG FOUR** or b. if a household member works in or attends a setting where any of the **BIG FOUR** have caused a confirmed outbreak.
- The person in charge must exclude from the establishment employees diagnosed with any of the **BIG FOUR**.
- The person in charge must restrict or exclude employees with other symptoms. Restrict means the employee may not work with food, clean equipment, linens, etc. Read Food Code subpart 2-2 Employee Health for more information.
- The Food Code contains model forms in Annex 7, which an employer can use.
- Contact the local health department when there are questions about handling an ill employee.

Purchasing food from approved sources

Questions to answer

- What are the approved sources that food can come from?
- What are sources of food that are unacceptable?

Technical Help (See Food Code 3-201.11-17)

- Buy only from suppliers who are getting their products from licensed reputable purveyors and manufacturers who inspect goods and follow public health laws.
- Meat must be USDA inspected and/or graded.
- Home-prepared and home-canned food is not allowed.
- Wild mushrooms must be inspected.
- Uninspected wild game or wild caught fish is not allowed.

Cleaning and sanitizing food contact surfaces

Questions to answer

- What are the food contact surfaces in the establishment?
- What equipment must be cleaned in-place?
- How often do surfaces and clean-in-place equipment need cleaning and sanitizing?
- What chemicals will be used to clean and sanitize?
- What procedures will be used to clean and sanitize surfaces?
- What procedures will be used to clean and sanitize clean-in-place equipment?
- What employee training will be done?

Technical Help (See Food Code 1-201.10(9)(29); 4-501.114; 4-601.11; subparts 4-602&3; parts 4-7)

- Food contact surfaces are surfaces that food normally comes into contact with. Also, they are surfaces from which food may drain, drip or splash into food or onto a food contact surface.
- Cleaning is the removal of food, soil, and other types of debris from a surface. Detergents are cleaning agents that remove grease or fat associated with food residues. Cleaning does not, by itself, consistently reduce contamination to safe levels.
- Sanitizing is an additional step that can only occur after a surface is already clean. Sanitizing involves the use of heat or chemicals to reduce the number of microorganisms to safe levels.
- Procedures for cleaning and sanitizing equipment that cannot be immersed in a sink are often highly specific to the piece of equipment. Food Code and manufacturer specifications should be followed closely.
- Follow the manufacturer's label and Material Safety Data Sheet (MSDS) for cleaners and sanitizers used.
- Generally use a 3-step process on surfaces: 1. Wash, 2. Rinse, 3. Sanitize.

Cross-contamination prevention

Questions to answer

- What surfaces, pots, pans or utensils have both raw and ready-to-eat foods touch them?
- Do raw meats need special storage to prevent contamination of ready-to-eat foods?
- How do cooks taste foods during preparation?
- How will cutting boards be managed to prevent cross-contamination?
- How are fruits and vegetables cleaned and stored?
- How are in-use utensils stored?
- What employee training will be done?

Technical Help (See Food Code part 3-3)

Store and prepare foods to prevent contamination. Some methods of preventing cross-contamination include:

- A utensil may not be used more than once to taste food that will be served or sold.
- Use separate equipment for each type of food. Separate beef, fish, lamb, pork and poultry from each other unless intentionally mixing during preparation.
- Store food in package, covered container or wrappings.
- Clean visible soil from cans of food before opening.
- Properly manage cutting boards. Washing, rinsing and sanitizing cutting boards and food contact surfaces between preparing raw and ready-to-eat foods is required. An option is to use color-coded cutting boards to help prevent cross-contamination. For example, use red for meat, blue for fish, green for vegetables. When using a surface for the same food for many hours, clean and sanitize at least every four hours.
- Prepare raw and ready-to-eat foods at different times or in different areas.
- Separate washed fruits from unwashed fruits.
- Store food in this order in refrigerator.

Top shelf	Ready-to-eat-foods
	Fish
	Beef Roasts, Steaks
	Ham, Pork Chops, Eggs
	Ground Meat
Bottom shelf	Poultry

- Wash all fruit and vegetables thoroughly. Illnesses have been caused by contaminated produce. It may be impossible to remove bacteria from items such as sprouts and green onions. Consider not serving these raw.
- Wash melons and other fruits before cutting them. This prevents bacteria on the surface from being transferred to the fruit in the middle.
- In-use utensils can be stored: a. in the food, b. in a running water dipper well, c. on a clean surface, if the utensil and surface are cleaned and sanitized at least every four hours, d. in a container of hot water (at least 140°F). Container and utensils must be cleaned once every 24 hours.
- Don't let customers use soiled plates or silverware for refills at buffets.

Warewashing

Questions to answer

- What needs to be washed?
- How often do items need to be washed?
- Where does it need to be washed?
- What chemicals are used for washing and sanitizing?
- What are the set-up and washing procedures?
- What employee training will be done?

Technical Help (See Food Code parts 4-6 & 4-7)

- All pots, pans, utensils, silverware, plates, etc. need to be washed, rinsed and sanitized after being used.
- Employees need direction whether to wash items in a dishwashing sink or an automatic dishmachine.
- Dishwashing sinks require the following steps:
 - scrape food from dishes into disposal or garbage,
 - wash in hot soapy water,
 - rinse in clear hot water,
 - sanitize by soaking in a chemical sanitizing solution, and
 - air dry.
- An approved chemical sanitizer must be used. Approved chemical sanitizers contain either chlorine, iodine or quaternary ammonium. Follow manufacturer's instructions.
- Dishmachines must be operated per manufacturer's instructions. Dishmachine's sanitize using either a hot water or chemical spray during the final rinse.

Date-marking ready-to-eat, potentially hazardous food

Questions to answer

- What food requires date-marking?
- What date-marking system will be used?
- What employee training will be done?

Technical Help (See Food Code 3-501.17)

- Certain unpackaged foods must be clearly marked to indicate the date by which the foods must be consumed.
- This applies to foods that are potentially hazardous*, ready-to-eat and that will be held more than 24 hours.
 - Potentially hazardous foods* that are reheated for immediate service also require date marking.
- Foods must be marked at the time of preparation, or in the case of a commercially processed food, at the time that the container or packaging is opened in a retail facility.
- Date marking is not the same as the "last date of sale"? A "last date of sale" is required for prepackaged perishable foods being offered for retail sale. Firms which package perishable foods must identify the product's suggested shelf life by use of a date based on both food safety and quality characteristics. "Last date of sale" requirements are spelled out in Section 8107 of the Michigan Food Law of 2000.
- Foods that **do not** require date marking are as follows:
 - foods that are not ready-to-eat (example: raw chicken).
 - foods that are not potentially hazardous (example: whole wheat bread).
 - whole, unsliced portions of cured and processed luncheon meat or other meat food products still remaining in the original cellulose casing after the casing is cut. Example: shelf stable salami
 - certain hard and semi soft cheeses identified by FDA that are not PHF (but may still require refrigeration). <http://vm.cfsan.fda.gov/~ear/ret-chdt.html>

Using time only (not time and temperature) as a method to control bacterial growth

Questions to answer

- What foods does your establishment plan to use time as the only control for bacterial growth?
- What are the specific procedures that will be used?
- What employee training will be done?

Technical Help (See Food Code 3-501.19)

- Time only, rather than time in conjunction with temperature, can be used as a public health control only for: a. working supplies of potentially hazardous food* before cooking, b. ready-to-eat potentially hazardous food that is displayed or held for service or immediate consumption.
- The food must be marked with the time that is 4 hours past the time it is removed from temperature control.
- The food must be served or discarded within the 4-hour limit. For example, a hamburger is cooked and wrapped at 11:00 am, then held at less than 140°F. The package must be marked 3:00 pm to show the time it must be sold or thrown away by.
- Time as a control may not be used when serving a highly susceptible population, such as hospital patients or children in day care.

Time and temperature control for thawing potentially hazardous food*

Questions to answer

- What foods does your establishment thaw?
- What are the specific thawing procedures that will be used?
- What employee training will be done?

Technical Help (See Food Code 3-501.12; 3-501.13)

- Approved thawing methods are: a. In the refrigerator, b. submerged under running water 70°F or below, and c. while cooking. When thawed in a microwave, food must immediately be placed in conventional cooking equipment.

Time and temperature control for cooking potentially hazardous food*

Questions to answer

- What foods or groups of foods must be cooked? For example, fish would be a group of foods.
- What is the minimum cooking temperature for each food or group of foods?
- How will temperature be checked?
- What employee training will be done?

Technical Help (See Food Code part 3-4)

Minimum internal cooking temperatures are:

165°F	Poultry, stuffing, stuffed meat or fish, casseroles, egg dishes, dishes combining raw and cooked food. Potentially hazardous food cooked in microwave.
155°F	Ground or flaked meats
145°F	Pork, beef and pork roasts, beef steaks, veal, lamb, commercially raised game animals, fish, foods containing fish, shell eggs for immediate service. See the Food Code, subpart 3-4 for alternate cooking times for beef and pork roasts and ground meat.
140°F	Fruits and vegetables that are cooked for hot holding.

Note: Cook to this temperature for at least 15 seconds

Time and temperature control for cooling potentially hazardous food*

Questions to answer

- What foods or groups of foods must be cooled? For example, gravies and soups would be groups of foods.
- What cooling procedures will be used for different foods or groups of foods?
- How will cooling times and temperatures be checked?
- What employee training will be done?

Technical Help (See Food Code 3-501.14-15)

- Cooked potentially hazardous food shall be cooled in two steps. Within 2 hours from 140°F to 70°F, then within 4 more hours from 70°F to 41°F.
- Food prepared from ingredients at room temperature shall be cooled to 41°F within 4 hours.
- Cooling methods include:
 - placing food in shallow pans.
 - separating food into smaller or thinner portions,
 - using rapid cooling equipment, (for example an ice paddle).
 - stirring the food in a container placed in an ice bath.
 - adding ice as an ingredient.
 - other effective means.
- Cover food loosely or leave uncovered to help cool food faster.
- Discard food that has not been cooled in the required time.
- Don't use equipment to cool foods unless the equipment has the ability to cool the food in the required times.

Time and temperature control for reheating potentially hazardous food*

Questions to answer

- What foods or groups of foods must be reheated?
- What reheating procedures and equipment will be used for different foods or groups of foods?
- How will reheating times and temperatures be checked?
- What employee training will be done?

Technical Help (See Food Code 3-403.11)

- When previously cooked food is reheated for hot holding, reheat to 165°F for 15 seconds within 2 hours.
- Properly cooked food reheated for immediate service, such as the roast beef for a sandwich, may be served at any temperature.
- Discard food that has not been reheated to 165°F in 2 hours.
- Don't use equipment to reheat if the food can't be reheated to 165°F in 2 hours.

Time and temperature control for hot holding potentially hazardous food*

Questions to answer

- What foods or groups of foods will be held hot?
- What hot holding equipment will be used for different foods or groups of foods?
- How will hot holding times and temperatures be checked?
- What employee training will be done?

Technical Help (See Food Code 3-501.16; 3-501.19)

- Use only hot holding equipment that can keep foods at 140°F or higher.
- Stir foods often.
- Keep foods covered.
- Take food temperatures at least every 2 hours.
- Discard foods after 4 hours if they have not been held at or above 140°F.

Time and temperature control for cold-holding potentially hazardous food*

Questions to answer

- What foods or groups of foods will be held cold?
- What cold-holding equipment will be used for different foods or groups of foods?
- How will cold-holding temperatures be checked?
- What employee training will be done?

Technical Help (See Food Code 3-501.16)

- Use only cold-holding equipment that can keep foods at 41°F or lower.
- Keep foods covered.
- Take food temperatures at least every 2 hours.
- Discard foods after 4 hours if they have not been held at 41°F or below.

Special transitory food units (SFTU's) only- Water Supply

Questions to answer

- Where will potable (drinkable) water be obtained from?
- How will the water connection be made?
- How will the individual fixtures or pieces of equipment be protected against backflow, backsiphonage or cross-connection?

Technical Help (See Food Code part 5-1; subpart 5-202; subpart 5-205; and part 5-3)

- An adequate supply of potable water must be available on-site for cooking and drinking purposes, and for cleaning and sanitizing equipment, utensils and food contact surfaces.
- Air breaks or air gaps in the waste drain lines is required for certain equipment. Certain water line connections must have the proper type of protective device. Your plan reviewer can help answer your questions on specific requirements.

Special transitory food units (SFTU's) only- Wastewater Disposal

Questions to answer

- How will you dispose of wastewater?

Technical Help (See Food Code part 5-4)

- Liquid wastewater (from sinks, ice machines, ice chests, mop water) must be properly disposed of using a sanitary sewer or approved holding tank. Wastewater cannot be dumped into storm drains, waterways or onto the ground.

***Which foods would be considered potentially hazardous?**

Microorganisms generally grow rapidly in moist, high protein foods that have not been acidified or otherwise further processed to prevent such growth. Examples of PHFs include, but are not limited to:

- Animal foods that are raw or heat treated such as:
 - Milk or milk products including cheese and whipped butter
 - Meats including raw or partially cooked bacon
 - Shell eggs
 - Fish
 - Poultry and poultry products
 - Shellfish
- Food derived from plants that are heat treated including:
 - Onions (cooked and rehydrated)
 - Cooked rice
 - Soy protein products (example:tofu)
 - Potatoes (baked or boiled)
- Food derived from plants that consist of:
 - Cut melons, or
 - Raw seed sprouts.
- Garlic-in-oil, and other vegetable-in-oil mixtures that are not treated to prevent the growth and toxin production of *C. botulinum*;
- Certain sauces, breads, and pastries containing potentially hazardous food (examples: meat, cheese, cooked vegetables or cream)

What is Not a PHF?

- An air-cooled hard boiled egg with shell intact;
- A food with water activity of 0.85 or less;
- A food with a pH of 4.6 or below when measured at 75°F;
- A food in a hermetically sealed container commercially processed to achieve and maintain sterility;
- A food for which laboratory evidence has demonstrated that rapid and progressive growth of pathogens or the slower growth of *C. botulinum* cannot occur.

Food establishment managers are responsible for accurately determining which of the foods they serve or sell are potentially hazardous and therefore require strict temperature control.

Assistance in determining if food meets these requirements is generally available from food industry consultants, independent consulting laboratories certified to conduct microbiological testing of foods, and university-based food scientists.