



**Emergency Action Plans  
for  
Retail Food  
Establishments**

Michigan



**Preparedness  
Response  
Recovery  
Prevention**



## **Emergency Action Plans for Retail Food Establishments**

Practical guidance for retail grocery and food service establishments to plan and respond to emergencies that create the potential for an imminent health hazard.

Produced by

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# **Emergency Action Plans**

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# **Emergency Action Plan**

## **Introduction**

## **Responsibilities of the Permit Holder and Regulatory Authority During an Emergency**

### **Permit Holder**

#### **Single Event**

In the event of an imminent health hazard involving interruption of electrical service, water service, contaminated water supply, fire, flood, or sewage back-up at an individual establishment, the Permit Holder shall:

1. Assess the situation. Immediately discontinue operation if a safe operation cannot be maintained using an alternative procedure.
2. Notify the regulatory authority of the imminent health hazard and discuss alternate procedures to be used. Determine if the issue is widespread.
3. Follow the appropriate emergency procedures if approved by the regulatory authority or remain closed until granted approval to re-open by the regulatory authority.

#### **Widespread Emergency**

In the event of an imminent health hazard involving interruption of electrical service, water service, contaminated water supply, fire, flood, or sewage back-up that affects numerous establishments, the Permit Holder shall:

1. Conduct an evaluation of the operation as it relates to the hazard to determine if a safe operation can be maintained in accordance with the Michigan Food Law 2000.
2. Close the establishment if a safe operation cannot be assured.
3. If a safe operation can be assured, the establishment can remain open provided the appropriate Emergency Action Plan (EAP) is followed.

## **Regulatory Authority**

The Regulatory Authority will:

1. Promptly respond to single events involving imminent health hazards and provide guidance to help the permit holder resume operation as quickly as possible.
2. Allow permit holders to assess food safety within their individual establishment during a widespread emergency and allow the permit holder to follow the Emergency Action Plan.
3. Communicate with the industry during widespread emergencies through mass media, hot lines, websites, etc.
4. Conduct surveillance during a widespread emergency to determine if permit holders are following Emergency Action Plans.
5. Conduct enforcement activity as appropriate to protect public health.

## **Emergency Action Plan Introduction Planning Ahead**

It is important to plan ahead and be prepared. You should consider the type of hazard(s) for which your business is most vulnerable and take precautions to minimize the impact of such occurrences. For example, of the imminent health hazards listed in this document, statistics show that interruption of electrical service is likely to be the most common. Ask yourself what would you do if your establishment lost power today? What would you do if the power outage lasts for an extended period of time, is widespread, and causes many people to compete for ice, batteries, generators, refrigerated trucks, etc.? Would your business survive?

According to the National Archives and Records Administration:

- 43% of companies struck by disaster never resume operations.
- 29% of those that resume business fail within two years.

The high cost of paying staff who are idle, cost associated with loss of staff, added work and material costs related to the disaster, loss of inventory, other hard cash costs, lost business, lost customer loyalty, and lost customer confidence all take a toll.

The following checklist is intended to help you start your emergency response:

 **Water Supply Related Issues**  

- Prepare an “emergency menu,” including recipes for food items requiring no water or minimal amounts of water to prepare.
- Maintain an inventory of single-service and single-use articles to help get through a reasonable time period.
- Maintain an inventory of bottled water.
- Maintain an inventory of containers suitable for hauling water.
- Maintain an inventory of disposable gloves and hand sanitizer.
- Develop a business agreement with a bottled water supplier or a licensed drinking water hauler that will provide assurance that you will have an alternative source of water available during an emergency.
- Locate public water supplies in your area and points where containers can be filled with drinking water.
- Develop a contingency plan for toilets. If the water service is interrupted, where will you and your employees find toilet facilities available for use?
- Develop a business agreement with an ice supplier in order to ensure you that you have access to ice during an emergency.
- Maintain contact information for people such as your plumber, water well drilling contractor, utility company, ice supplier, water supplier, local health department, Michigan Department of Agriculture and Rural Development (MDARD), emergency broadcast station frequency numbers, etc.
- Develop a list of equipment that uses water and develop a contingency plan describing what you would do if the water is either interrupted or contaminated. Use the Emergency Action Plans as a guide to help describe the steps that you would take in your own establishment.



## Interruption of Electrical Service EI

- Power outages are the most frequent type of man-made disasters. Statistics indicate the average power outage lasts four hours. The August 2003 power outage disaster affecting large areas in the northeastern part of the United States lasted four days.
- Consider access to an electrical generator that could be used in emergencies. Make certain the generator has the capacity to operate critical pieces of equipment such as refrigeration and freezer units, pumps, safety lighting, hot water heaters, etc. Make certain individuals are trained to operate the equipment safely. Inform the utility company you are using a generator as a safety precaution for their employees.
- Consider securing access to a refrigerated truck that can be delivered to the site during an emergency.
- Consider securing access to a refrigerated warehouse that has a back-up generator where you can bring food needing refrigeration in insulated containers.
- Prepare an “emergency menu” in advance including recipes for food items that do not require cooking since the ventilation system will no longer remove smoke, steam, grease-laden air, etc.
- Develop a plan for minimizing loss of food product held under refrigeration. Opening refrigeration equipment doors will cause the food to warm more quickly. What is your strategy for loss prevention?
- If you plan to use ice to keep food cold, where will you obtain ice when ice is in high demand by the general population?
- Dry ice should not be used in enclosed spaces (i.e. walk-in cooler) because of the potential build-up of carbon dioxide.
- Heating, air conditioning, security systems, computers, cash registers, lighting, and other systems may not operate. Develop a plan for coping with these problems.
- Maintain contact information for people such as the utility company, garbage hauling service, ice supplier,

refrigerated truck company, food warehouse, septic tank pumping service, local health department, MDARD, emergency broadcast station frequency numbers, etc.

- Develop a list of equipment that uses electricity in your establishment and develop a contingency plan describing what you would do if electrical service is interrupted. Use the Emergency Action Plans as a guide to help describe the steps you would take in your own establishment.

### Sewage Backup

- Develop a list of equipment and facilities that have a drain. What specific steps would you take if each piece of equipment or a combination were no longer operable due to a drainage problem? Use the Emergency Action Plans as a guide to help describe the steps you would take in your own establishment.
- Develop a contingency plan for toilets. If the drain no longer functions, where will you and your employees find toilet facilities available for use?
- Maintain contact information for people such as the plumber, drain cleaning service, utility company, septic tank pumping service, local health department, MDARD, etc.
- Develop a plan for communicating with key people in your organization. Keep a list of emergency contact numbers with you at all times.
  - Consider the purchase of a phone that plugs into a jack vs. one that depends on electricity for operation.
  - Utilize a service that can provide continuous communication in the event of a power outage.
  - Plan how important documents and other information will be communicated without the use of computers and fax machines.



### In Case of Fire **FI**

- Post the phone number of the fire department in a conspicuous place by each phone.
- Ask the local fire marshall or other authority to conduct an assessment to determine if there are any fire hazards.
- Develop a plan for what to do in case of a fire. Have a practice fire drill.
- Ensure your fire extinguisher is charged and hood systems inspections are up to date.
- Maintain contact information for people such as the fire department, police department, insurance company, water and fire damage restoration company, utility companies, lawyer, local health department, MDARD, etc.



### In Case of Flood **FL**

- Determine if food and other products which are susceptible to water damage are stored in areas not prone to flooding, off the floor, and not under water and/or sewer lines, etc.
- Develop a plan for monitoring and maintaining sump pumps, down spouts, plumbing, exterior surface grading, storm drains, and other facilities that can contribute to flooding.
- Maintain contact information for people such as the plumber, electrician, local retail store, fire department, police department, insurance company, water damage restoration company, utility companies, rubbish disposal company, local health department, MDARD, etc.



Emergency Action Plans for  
**Interruption of Electrical  
Service**





## **Emergency Action Plan (EAP) Interruption of Electrical Service**

*For the purpose of defining an imminent health hazard for this EAP, an extended interruption of electrical service means the electrical service has been interrupted for **two hours or more**.*

*For single events affecting an individual establishment, it is recommended the permit holder note the date and time, notify the regulatory authority at the onset of the interruption, and implement the EAP. After two hours the permit holder must close and notify the regulatory authority.*

### **I. Assessment**

In the event of an emergency involving electrical service interruption, appropriate food establishment responses must be taken after an assessment of multiple factors including, but not limited to:

- The complexity and scope of food operations.
- The duration of the emergency event.
- The impact on other critical infrastructure and services (example: water supply).
- The availability of alternative procedures that can be used to meet Food Code and Food Law requirements.

A food establishment manager (or the “Person-in-Charge”) is responsible for conducting both initial and ongoing assessments to ensure consistent compliance with food safety requirements.

### **II. Response**

The following are temporary alternative procedures that should be taken to address specific affected food operations during an extended interruption of electrical service.

#### **Affected Operations**

##### **Refrigeration** – Refrigeration equipment inoperable.

###### Alternative Procedures

- Note the time the power outage begins  
**And**
- Monitor and record food temperatures every two hours (see chart in III. Recovery).
- Keep refrigeration equipment doors closed.

- Pack potentially hazardous food in commercially made ice or dry ice (see precautions for using dry ice in the “Planning Section”).
- Do not put hot food in refrigeration equipment.
- See chart in “Recovery” section of this guide for disposal of potentially hazardous food.

**Ventilation** – No mechanical ventilation provided to remove cooking smoke, steam, grease-laden air, etc.

Alternative Procedures

- Discontinue all cooking operations.

**Lighting** – Lack of artificial illumination for personal safety, food preparation, food handling, cleaning equipment/utensils, cleaning the premises.

Alternative Procedures

- Limit operation to daylight hours. Restrict operations to those that can be safely conducted in available natural light.
- Provide lighting using other power sources (i.e. battery, candle, etc. if fire codes allow). Limit operation to those procedures that can be safely conducted using alternative lighting.

**Cooking Equipment** – Cooking equipment is no longer functional.

Alternative Procedures

- Evaluate time and temperature to determine if foods should be discarded.
- Discard potentially hazardous foods that were in the cooking or re-heating process but did not reach a safe final temperature.

**And**

- Discontinue cooking operations.

**Hot Food Holding** – Equipment for holding potentially hazardous food hot is no longer operational.

Alternative Procedures

- Note the time the power outage begins.  
**And**
- Discard all potentially hazardous food four hours after removing it from temperature control (below 135 degrees F).  
**Or**
- Use an alternate heat source such as “canned heat” and monitor temperatures hourly. Note: If power returns within four hours, reheat food to 165 degrees F.

**Dishwashing Equipment** – Equipment for cleaning and sanitizing utensils and tableware is no longer operational.

Alternative Procedures

- Use the three compartment sink if hot water is still available.  
**Or**
- Use single service tableware.  
**And**
- Discontinue operations that generate soiled utensils/tableware.

**Water** – The well serving the establishment no longer produces water.

Alternative Procedures

- See “Interruption of Water Service” procedures.

**Sewage Disposal** – Sewage ejector pump(s), no longer function.

Alternative Procedures

- Discontinue all operations and contact the local health department for possible options.

**Electric Hot Water Heater** – No hot water.

Alternative Procedures

- Heat water on a gas cooking appliance.

### **III. Recovery**

Recovery involves the necessary steps for re-opening and returning to a normal safe operation.

A food establishment that was ordered or otherwise required to cease operations may not re-open until authorization has been granted by the regulatory authority.

See the EAP for “Extended Interruption of Water Service” for re-opening considerations relative to the water supply.



### **Refrigerated Food Safety Guide**

When power is restored, the following table should be used as a guide for handling potentially hazardous food (PHF) stored in refrigeration units that may have lost power. When in doubt, throw it out!

COLD FOOD TEMPERATURE GUIDANCE			
Time	42 - 45°F	46°F to 50°F	50°F or above
0-2 (hours)	PHF can be sold	Immediately cool PHF to 41°F or below within 2 hours	PHF cannot be sold Destroy the Food
2-3 (hours)	PHF can be sold, but must be cooled to 41°F or below within 2 hours	Immediately cool PHF to 41°F or below within 1 hour	
4 (hours)	Immediately cool PHF to 41°F or below within 1 hour	PHF cannot be sold Destroy the Food	
5+	PHF cannot be sold Destroy the Food		

**Frozen foods** remaining solid or semi-solid can be re-frozen if food packages show no evidence of thawing such as weeping, stains, physical depreciation, evaporation, or container damage.

#### **Key areas to consider for returning to normal operation when power is restored:**

- Electricity, water, and/or gas services have been fully restored.

- All circuit breakers have been properly re-set as needed.
- All equipment and facilities are operating properly including: lighting, refrigeration (back to operating temperature of 41 F and below), hot holding, ventilation, water supply, sewage pumps, hot water heaters, toilet facilities, ware washing machines, and hand washing facilities.
- Food contact surfaces, equipment, and utensils are cleaned and sanitized prior to resuming food-handling operations. This includes ice bins in ice machines where the ice melted during the interruption.
- All water lines have been flushed, filters changed, etc.

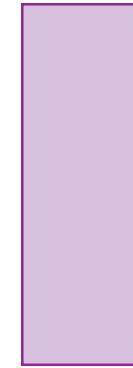
### Disposal of Food

Small volumes of food can be denatured (such as with bleach, detergent or other cleaning product to render it unusable) and placed in an outside refuse bin for removal. To discard large volumes of food, the firm should contact a disposal company for immediate transportation to a licensed landfill. For a listing of licensed landfills, visit the Michigan Department of Environmental Quality website at [www.michigan.gov/deq](http://www.michigan.gov/deq) (click on waste / solid waste / solid waste facilities).

A warning label should be placed on denatured food packaging to alert potential scavengers that the food is poisonous.



Emergency Action Plans for  
**Interruption of Water Service**





# **Emergency Action Plan**

## **Interruption of Water Service**

*For the purpose of defining an imminent health hazard for this EAP, an extended interruption of water service means water service has been **interrupted for two or more hours**. For single events affecting an individual establishment, it is recommended that the permit holder document the date and time the water interruption begins, and notify the regulatory authority at the onset of the interruption and implement the EAP. After two hours, the permit holder must close and notify the regulatory authority.*

### **I. Assessment**

In the event of an emergency involving water service interruption, appropriate food establishment responses must be taken after an assessment of multiple factors including, but not limited to:

- The complexity and scope of food operations.
- The onset and duration of the emergency event.
- The impact on other critical infrastructure and services.
- The availability of alternative procedures that can be used to meet Food Code and Food Law requirements.

A food establishment manager (or the “Person-in-Charge”) is responsible for conducting both initial and ongoing assessments to ensure consistent compliance with food safety requirements.

### **II. Response**

The following temporary alternative procedures can be taken to address specific affected food operations during an extended interruption of water service.

A food establishment manager (or the “Person-in-Charge”) is responsible for conducting both initial and ongoing assessments to ensure consistent compliance with food safety requirements.

## Affected Operations

### Handwashing – No water to wash hands.

#### Alternative Procedure

- Chemically treated (wet-nap) towelettes may be used for cleaning hands if the food items offered are prepackaged or otherwise protected from contamination by hands, no bare-hand contact with food will occur, AND a hand washing facility is available at the alternate toilet room location.

#### And/Or

- Potable water from an approved public water supply system which can be placed into a clean, sanitized container with a spigot which can be turned on to allow clean, warm water to flow over one's hands into a sink drain. Provide suitable hand cleanser, disposable towels, and a waste receptacle.

#### And

- Follow up with a hand sanitizer approved (or compliant with) by the FDA Food Code.
- Suspend alternative procedures for bare hand contact. Do not touch ready-to-eat food with bare hands.

### Toilet Facilities – No water to flush toilets and urinals.

#### Alternative Procedure

- Toilet rooms and/or portable toilets with adequate hand washing facilities that may not be conveniently located but are accessible to employees during all hours of operation, may be used until water service is restored.

#### Or

- Discontinue operation if toilet facilities are not available.

## Drinking Water

#### Alternative Procedure

- Use commercially bottled water.

#### And/Or

- Haul water from an approved public water supply in a covered sanitized container.

#### And/Or

- Arrange to use a licensed drinking water hauler truck.

## Affected Operations

Cooking – Food preparation.

### Alternative Procedure

- Use commercially bottled water, water hauled from an approved public water supply in a covered sanitized container, or water from a licensed drinking water hauler truck.

**And/Or**

- Restrict the menu to items that don't require water.

## Ice

### Alternative Procedure

- Use commercially manufactured ice.

## Post-mix Fountain Drinks

### Alternative Procedure

- Discontinue service.

## Cleaning/Sanitizing Equipment, Utensils, Tableware, Physical Facility Cleaning/Sanitizing Equipment, Utensils, Tableware, Physical Facility

### Alternative Procedure

- Use single service/use articles.

**And/Or**

- Use commercially bottled water or water from an approved public water supply in a covered sanitized container. Water from a licensed drinking water tanker truck can also be used to clean and sanitize equipment and utensils. If water from an alternate source can be obtained, then follow the established procedures to wash, rinse, and sanitize. Pre-scrape prior to washing as necessary.

**And**

- Discontinue operations when inventories of clean equipment utensils and tableware are exhausted.
- Discontinue operations when cleanliness of the physical facility jeopardizes food safety.

### **III. Recovery**

Recovery involves the necessary steps for re-opening and returning to a normal safe operation.

**A food establishment ordered or otherwise required to cease operations may not re-open until authorization has been granted by the regulatory authority.**

After water service has been restored and after either the municipality or regulatory authority has lifted any Boiled Water Advisory:

- Flush pipes/faucets: follow the directions from your water municipality or regulatory authority such as those via television, radio, newspaper, fax, etc. or, as a general guidance, run cold water faucets for at least five minutes.
- Equipment with water line connections such as post-mix beverage machines, spray misters, coffee or tea urns, ice machines, glass washers, dishwashers, and other equipment with water connections must be flushed, cleaned, and sanitized in accordance with manufacturers instructions.
- Run water softeners through a regeneration cycle.
- Drain reservoirs in tall buildings.
- Flush hot water tank.
- Change out all filters.
- Flush beverage machines.
- Flush drinking fountains: run continuously for five minutes.
- Ice Machine Sanitation:
  - Flush the water line to the machine inlet.
  - Close the valve on the water line behind the machine and disconnect the water line from the machine inlet.
  - Open the valve, run five gallons of water through the valve and dispose of the water.
  - Close the valve.
  - Reconnect the water line to the machine inlet.

- o Open the valve.
- o Flush the water lines in the machine.
- o Turn on the machine.
- o Make ice for one hour and dispose of the ice.
- o Clean and sanitize all parts and surfaces that come in contact with water and ice following the manufacturer's instructions.

Food Establishments utilizing a Type II or Type III Non-Community Water Supply (privately owned well) must follow the disinfection and sampling requirements of The Safe Drinking Water Act, Act 399, PA 1976, before resuming operations. Contact your local health department for specific instructions.



Emergency Action Plans for  
**Contaminated Water Supply**  
(Biological)





## **Emergency Action Plan Contaminated Water Supply (Biological)**

*For the purpose of this EAP, an imminent health hazard exists whenever a municipality has issued a Boil Water Advisory or when an onsite water supply has exceeded the maximum contaminant level for coliform bacteria. For events affecting an individual establishment, the permit holder must close and report to the regulatory authority.*

### **I. Assessment**

In the event of an emergency involving a contaminated water supply, appropriate food establishment responses must be taken after an assessment of multiple factors including but not limited to:

- The complexity and scope of food operations.
- The onset and duration of the emergency event.
- The impact on other critical infrastructure and services.
- The availability of alternative procedures that can be used to meet Food Code and Food Law requirements.

A food establishment manager (or the “Person-in-Charge”) is responsible for conducting both initial and ongoing assessments to ensure consistent compliance with food safety requirements.

### **II. Response**

The following are temporary alternative procedures to address specific affected food operations during a biological contamination of the water supply (boil water advisory). Where “boiled” water is indicated, the water must remain at a rolling boil for at least one minute. Although chemicals (e.g. bleach) are sometimes used for disinfecting small amounts of household drinking water, chemical disinfection is generally not an option for food establishments because of the lack of onsite equipment for testing chemical residuals.

## Affected Operations

### Drinking Water

#### Alternative Procedures

- Use commercially bottled water and/or water that has been boiled for at least one minute.

**And/Or**

- Haul water from an approved public water supply in a covered sanitized container.

**And/Or**

- Arrange to use a licensed drinking water hauler truck.

**Beverages Made with Water** – including post mix carbonated beverages, auto-fill coffee makers, instant hot water dispenser, juice, tea, etc.

#### Alternative Procedures

- Discontinue use of post-mix carbonated beverage machine, auto-fill coffee makers, instant hot water heaters, etc., using auto-fill.

Additional information for safe drinking water can be found at the following website: [www.epa.gov/ogwdw/faq/emerg.html](http://www.epa.gov/ogwdw/faq/emerg.html).

## Ice Making

#### Alternative Procedures

- Discard existing ice
- **And**
- Discontinue making ice.
- Use commercially manufactured ice.

## Preparing Food Products Requiring Water

#### Alternative Procedures

- Discard any ready-to-eat food prepared with water prior to the discovery of the contamination.
- Prepare ready-to-eat food using commercially bottled or boiled water.

## Washing / Soaking Produce

#### Alternative Procedures

- Use pre-washed packaged produce.

**And/Or**

- Use frozen/canned fruits & vegetables.

**And/Or**

- Wash fresh produce with boiled, commercially bottled water, or safe potable water hauled from a public water supply system.

### Thawing of Frozen Foods

Alternative Procedures

- Thaw only in the refrigerator or as part of the cooking process.

### Cooking

Alternative Procedures

- Use commercially bottled water.

**And/Or**

- Haul water from an approved public water supply in a covered sanitized container

**And/Or**

- Arrange to use a licensed drinking water hauler truck.

### Handwashing

Alternative Procedures

- Use heated bottled water, boiled water, or safe water hauled from an approved public water supply.

**Or**

- Use tap water followed by a hand sanitizer.

**And**

- Suspend alternate procedures for bare hand contact.  
Do not allow bare hand contact with ready-to-eat food.

### Cleaning and Sanitizing Utensils and Tableware

Alternative Procedures

- Use single service utensils and tableware.

**Or**

- Use the existing automatic dish machine or the three-compartment sink. Make certain the sanitization step is being properly conducted (sanitizer concentration/temperature).

**Spray Misting Units** – used to spray produce, seafood, meat cases, etc.

Alternative Procedures

- Discontinue use of misters.

### **III. Recovery**

Recovery involves the necessary steps for re-opening and returning to a normal safe operation.

**A food establishment ordered or otherwise required to cease operations may not re-open until authorization has been granted by the regulatory authority.**

After either the municipality or regulatory authority has provided notice that the water supply is safe to use, the operator must verify the following has been completed:

- Flush pipes/faucets: follow the directions of your water utility (in the newspaper, radio, or television) or, as general guidance, run cold water faucets for at least five minutes.
- Equipment with water line connections such as post-mix beverage machines, spray misters, coffee or tea urns, ice machines, glass washers, dishwashers, and other equipment with water connections must be flushed, cleaned, and sanitized in accordance with manufacturers instructions.
- Run water softeners through a regeneration cycle.
- Drain reservoirs in tall buildings.
- Flush hot water tank.
- Flush drinking fountains: run continuously for five minutes.
- Ice Machine Sanitation:
  - Flush the water line to the machine inlet.
  - Close the valve on the water line behind the machine and disconnect the water line from the machine inlet.
  - Open the valve, run five gallons of water through the valve and dispose of the water.
  - Close the valve.

- Reconnect the water line to the machine inlet.
- Open the valve.
- Flush the water lines in the machine.
- Turn on the machine.
- Make ice for one hour and dispose of the ice.
- Clean and sanitize all parts and surfaces that come in contact with water and ice, per manufacturer's instructions.

Food establishments utilizing a Type II or Type III Non-Community Water Supply (privately owned well) must follow the disinfection and sampling requirements of The Safe Drinking Water Act, Act 399, PA 1976, before resuming operations. Contact your local health department for specific instructions.



Emergency Action Plans for  
**Sewage Back-up**





## **Emergency Action Plan Sewage Backup**

*For the purpose of this EAP, a sewage backup means the overflow of sewage from equipment or plumbing facilities within a food establishment. The Food Code defines sewage as liquid waste containing animal or vegetable matter in suspension or solution and may also include liquids containing chemicals in solution. Clear water waste (i.e. ice bin/machine drainage, condensation from refrigeration and air conditioning equipment) is not considered sewage. For single events affecting an individual establishment, the permit holder must close and report to the regulatory authority.*

### **I. Assessment**

In the event of an emergency involving a sewage backup, appropriate food establishment responses must be taken after an assessment of multiple factors including but not limited to:

- The complexity and scope of food operations.
- The duration of the emergency event.
- The impact on other critical infrastructure and services (example: food, equipment, utensils, linens, single service/use items, employee health).
- The availability of alternative procedures that can be used to meet Food Code and Food Law requirements.

A food establishment manager (or the “Person-in-Charge”) is responsible for conducting both initial and ongoing assessments to ensure consistent compliance with food safety requirements.

### **II. Response**

The following are temporary alternative procedures that can be taken to address specific affected food operations during a sewage backup emergency.

### Affected Operations

**General** – (Sewage from equipment directly connected to the plumbing system is either slow to drain or does not drain.)

#### General Procedures

- Remove the affected equipment/fixture from service.  
**And**
- Remove the obstruction or call a service company.
- Thoroughly clean any spills with a detergent solution followed by a sanitizer solution.
- Keep foot traffic away from area.
- Use other properly operating appliances or fixtures in the establishment.

**Handwashing** – All handwashing sinks in the establishment do not drain.

#### Alternative Procedure

- Chemically treated (wet-nap) towelettes may be used for cleaning hands if the food items offered are prepackaged or otherwise protected from contamination by hands, no bare-hand contact with food will occur, AND a hand washing facility is available at the alternate toilet room location.

**Or**

- Hot water can be placed into a five-gallon insulated container with a spigot which can be turned on to allow clean, warm water to flow over one's hands into another container. Provide suitable hand cleaner, disposable towels, and a waste receptacle.

The container may only be emptied into an operational janitor sink or toilet.

**Or**

- Discontinue operation.

**Toilet Facilities** – All toilet facilities do not drain.

#### Alternative Procedure

- Toilet rooms, not conveniently located but are accessible to employees during all hours of operation, may be used until water service is restored.

**Or**

- Discontinue operation if no alternate toilet facilities are available.

**Culinary Sinks** – all sinks required for thawing food, washing fruits and vegetables, cooling food, etc., do not drain.

Alternative Procedure

- Thaw food in the refrigerator or as part of the cooking process.
- Use pre-washed, packaged produce.
- Use frozen/canned fruits & vegetables not requiring washing.
- Use alternate cooling methods.
- Modify the menu to avoid procedures requiring the use of a culinary sink.

**Warewashing Equipment** – all dish machines, three compartment sinks, pot sinks do not drain.

Alternative Procedure

- Discontinue dish/utensil washing and use single service/use items.
- Discontinue affected operations after supply of clean equipment, utensils, single service items is exhausted.

**Janitor / Utility Sink** – does not drain.

Alternative Procedure

- Discontinue the use of the janitor sink.
- Dump mop water into a toilet.
- Discontinue operation if the physical facility cannot be maintained in a sanitary condition.

**Continuous overflow of sewage into the establishment** – Sewage continues to backup into the building after the individual appliance(s) have been removed from service.

Alternative Procedure

- Discontinue operation.

### **III. Recovery**

Recovery involves the necessary steps for re-opening and returning to a normal safe operations.

**A food establishment ordered or otherwise required to cease operations may not re-open until authorization has been granted by the regulatory authority.**

Determine the cause of the problem and take appropriate corrective action.

- In the case of plugged drain lines, the permit holder will:
  - Contact a service company to find and remove the obstruction.
  - Replace worn or damaged plumbing as needed.
- If the onsite sewage disposal system is malfunctioning:
  - Contact the local health department for permit requirements.
  - Contact a sewage pumping contractor to pump the septic tank and haul away sewage to an approved disposal site until repairs can be made.
  - If necessary, barricade the affected area to keep the public and employees away from areas with exposed sewage.
  - Contact a sewage disposal system installation contractor to arrange for repairs to be made.



#### **Personal Health and Safety Considerations for Employees Involved in Clean-up**

- Wear eye protection.
- Wear rubber boots that can be washed and sanitized after the event.
- Wear protective clothing such as coveralls.
- Do not allow employees to walk between the affected area and other areas of the establishment without removing footwear and protective clothing.

- Follow OSHA rules for handling detergents, sanitizers, and other chemicals used in the cleaning process.
- Immediately wash hands after working with contaminated materials and before engaging in food preparation activities (working with exposed food, clean equipment and utensils, unwrapped single service / use articles).
  - Double hand washing – Clean hands and exposed portions of the arms using a cleaning compound, in a properly equipped lavatory, by vigorously rubbing together the surfaces of their lathered hands and arms for at least 20 seconds and thoroughly rinsing with clean water. Repeat.
  - Dry hands using disposable towels.
  - Use a disposable towel to turn off the water to prevent re-contaminating the hands.
  - Follow-up with a hand sanitizer.
  - Have janitorial staff clean the lavatory faucets and other portions of the lavatory after use to prevent transferring any contamination to food handlers.



#### **Provide General Clean-up**

- All damaged food equipment, utensils, linens, and single service items must be destroyed and properly disposed.
- Floors, walls, furnishings, carpets, utensils, and equipment damaged beyond salvage must be removed and replaced as necessary.
- Affected walls, floors, and equipment surfaces must be cleaned with soap and water, rinsed, and sanitized. Carpets should be either removed or effectively cleaned.
- Remove wet materials. Dispose of any materials that cannot be effectively cleaned and sanitized.
- Remove any standing sewage.
- Clean and sanitize any utensils and equipment in the affected area.
- Use a detergent solution to clean floors, equipment, and other affected areas followed by a clean water rinse.

- Sanitize the floor and any other affected areas by using a clear water sanitizer solution (eight ounces of bleach per five gallons of water = 500 part per million chlorine solution).
- Air-dry the affected area.
- Launder or discard mop heads and other cleaning aids that contacted the sewage.
- Alternative measure: Hire a janitorial service having expertise in cleaning food establishments exposed to sewage backups.



### **Contaminated Linens, Single Service / Use Items**

- Launder any linens or uniforms in contact with sewage.
  - Launder separately from other linens.
  - Use bleach.
  - Use a mechanical dryer.
- Discard any single service / use items in contact with sewage.



### **General Food Salvage Assessment**

Discard any food or food packaging materials which have come into contact with sewage. Very few food or beverage items can be saved after being exposed to sewage. Food items in soft packaging or with screw-top lids must be destroyed. In some cases canned goods in metal cans or rigid plastic containers can be saved. Even so, the condition of the can is another limiting factor. The presence of rust, soil, or destroyed labeling precludes salvage.

Sewage can make foods unsafe to eat, especially if packaging is contaminated. **Discard** the following foods if sewage has covered, splashed on, or seeped into the package:

- Alcoholic beverages: The Michigan Liquor Control Commission (MLCC) will usually request a destruction order for all such products. In some cases, “returnable” empty cans or bottles may be salvaged for their deposit value. Occasionally, MLCC will honor seizure of the total inventory and not require a separate order. MLCC should be consulted in all instances.

- Exposed foods, bulk foods, fresh produce, meat, poultry, fish, and eggs.
- Any foods packaged in paper, plastic, cloth, or fiber.
- Cardboard boxes, even if the contents seem dry, including cereals, pasta products, rice, and salt.
- Foods with cardboard seals, such as mayonnaise and salad dressing, or foil or cellophane packages.
- Food in glass jars, including unopened jars with waxed paper, foil, cellophane, or cloth covers.
- Foods, liquids, or beverages in crown-capped bottles or containers with pull-tab tops, corks, or screw caps.
- All opened containers and packages; foods in bags or canisters.
- Cans that are dented, leaking, bulging, or rusted.
- Cans that have been tossed about and are far from their normal storage spot (possibility of pinholes or seam fractures).
- Cans may not be sold without all required labeling information. Therefore, cans with damaged labels should be discarded.



### **Salvaged Goods – Reconditioning**

If the quantities of food involved are large (e.g. a large supermarket or a food warehouse), it may be feasible to attempt salvage for either human or animal consumption. There are, however, no approved re-conditioners of distressed goods in Michigan. They must either be destroyed or moved out of state under seizure to approved firms with reconditioning capability and in coordination with the U.S. Food and Drug Administration (FDA) and the other states' officials. In such cases, contact the MDARD Food and Dairy Division to coordinate the transport of these foods. The move must be supervised at all times with the products products under destination.



## Disposal of Food

If it is determined the food must be discarded:

- Remove food to a designated storage area for condemned food and secure in covered refuse containers or other isolated areas to prevent service to the public or accidental contamination of the facility and other food.
- If the food must be retained until the distributor can credit the facility, it must be clearly labeled as "NOT FOR SALE."
- Discarded perishable food may be stored in a refrigerated location separate from other food and held for credit until recorded by food supplier/distributor.
- The facility should document the type and amount of food, costs, and the reason for disposal for insurance and regulatory purposes.
- Small volumes of food to be discarded can be denatured with a cleaning product (such as bleach) and placed in a covered refuse bin outside the facility.
- Large volumes of food should be stored in covered refuse containers in a secure location and disposed of by a refuse disposal company as soon as possible.
- All food waste is to be disposed of in accordance with state and local waste disposal regulations in a licensed landfill.
- Local landfills should be contacted prior to delivery of food from a private individual or carrier to insure acceptance of the waste.

For a listing of licensed landfills, visit the Michigan Department of Environmental Quality website at [www.michigan.gov/deq](http://www.michigan.gov/deq) (click on waste / solid waste / solid waste facilities).

**Emergency Action Plans for**  
**Fire**





## **Emergency Action Plan**

### **Fire**

For the purpose of this EAP, a non-reportable fire is any small confined fire in a food establishment that has been extinguished using a simple device such as a wet towel or pan lid. Otherwise, all other fires must be reported to the regulatory authority.

#### **I. Assessment**

In the event of an emergency involving a fire, appropriate food establishment responses must be taken after an assessment of multiple factors including but not limited to:

- The complexity and scope of food operations.
- The duration of the emergency event.
- The impact on other critical infrastructure and services (example: water supply, electrical service, physical facility, equipment, smoke/water damage, offensive odors, deposition of toxic chemicals).
- The availability of alternative procedures that can be used to meet Food Code and Food Law requirements.

A food establishment manager (or the “Person-in-Charge”) is responsible for conducting both initial and ongoing assessments to ensure consistent compliance with food safety requirements.

#### **II. Response**

The following are temporary alternative procedures that can be taken to address specific affected food operations as a result of a fire.

##### **Affected Operations**

Fire is confined to a small incidental area or a single piece of equipment and is extinguished using a simple fire-fighting device (i.e. hand held extinguisher) not requiring extensive cleanup.

##### **Alternative Procedures**

- Unaffected areas of the establishment may remain open while clean-up and minor repairs are made.

Process of fighting fire, regardless of size, contaminates any of the following: food, equipment, utensils, linens, single service items. Typically associated with use of high pressure fire suppression device (i.e. ventilation hood fire suppression system or professional fire dept equipment).

#### Alternative Procedures

- Discontinue operations. Resume operations only after recovery steps have been completed.

Fire causes extensive damage to equipment and the facility's structure.

#### Alternative Procedures

- Discontinue operations. Resume operations only after recovery steps have been completed.

### III. Recovery

Recovery involves the necessary steps for re-opening and returning to a normal safe operation.

**A food establishment ordered or otherwise required to cease operations may not re-open until authorization has been granted by the regulatory authority.**



#### The Permit Holder will:

- Contact the local building department and other appropriate agencies to determine if the building structure is safe and approved for occupancy.
- Sort the salvageable from the non-salvageable foods as quickly as possible.
- Properly dispose of the non-salvageable food items.
- Provide general clean-up. Clean and sanitize equipment and utensils.



#### Food Salvaging/General Considerations

If the quantities of food involved are large (e.g. a large supermarket or a food warehouse) it may be feasible to attempt salvage for either human or animal consumption. There are, however, no approved re-conditioners of distressed goods in Michigan.

They must either be destroyed or moved out of state under seizure to approved firms having reconditioning capability and coordinated with the U.S. Food and Drug Administration (FDA) and the other states' officials. In such cases, contact the Food and Dairy Division Lansing Office to coordinate the transport of these foods. The move must be supervised at all times with the products under seizure until under the control of the FDA or officials at state of destination.



### **Charitable Donation**

It may be possible to divert some aforementioned foods such as minimally damaged canned foods to a local food bank for distribution to charitable organizations (See Act 136 of the Public Acts of 1993 – Immunity of Food Donors From Civil Liability). A donor of food is generally protected from liability unless:

- The illness or disease resulted from the willful, wanton, or reckless acts of the donor.
- The illness or disease resulted from prepared food if any of the following apply:
  - The prepared food was potentially hazardous food at the time it was donated.
  - A law of this state or a rule promulgated by an agency or department of this state concerning the preparation, transportation, storage, or serving of the prepared food was violated at any time before the food was donated.
  - The illness or disease resulted from food in hermetically sealed containers that were not prepared by a commercial processor.
  - The donor had actual or constructive knowledge that the food was tainted, contaminated, or harmful to health or well-being of the recipient of donated food.



### **The following is a guide for handling specific food items:**

- **Alcoholic beverages** – The Michigan Liquor Control Commission (MLCC) will usually request a destruction order for all such products, for complete destruction. In some cases, “returnable” empty cans or bottles may be salvaged for their deposit value. Occasionally, MLCC will honor

seizure of the total inventory and not require a separate order. MLCC should be consulted in all instances.

- **Bottled soft drinks** – Unless protected by a plastic outer wrap or in bottles with sealed screw-on lids, soft drinks in glass bottles are almost impossible to salvage. In addition, soft drinks in plastic bottles are almost always deemed unsalvageable due to heat and smoke. Bottle contents must be drained before returning the containers for deposits. This can be permitted if there are proper facilities for disposing of the liquid and a health nuisance is not created. If such facilities are not available, the product and container may have to be destroyed by removing to a licensed landfill.
- **Canned soft drinks** – Cans may be salvaged if the contents have not been subjected to excessive heat or fire. The cans must be cleaned and sanitized, if necessary. If the cans have been subjected to excessive heat or are deemed uncleanable, the contents must be destroyed.
- **Dairy products** – As a rule, dairy products must be destroyed with no attempt to salvage due to vulnerable packaging and temperature requirements.
- **Sugars, candies, flour, cereal products, bakery products, dried beans, rice, and other grains** – Usually, no attempt to salvage such products can be permitted due to vulnerable packaging.
- **Products in glass with metal screw-type or metal slip covers** – This includes pickles, olives, catsup, steak sauces, salad dressings, syrups, etc. This type of container is impossible to clean or disinfect due to exposure of the threaded closure and must be destroyed.
- **Fish and meats (fresh or frozen)** – In almost all instances, these products must be destroyed.
- **Refrigerated and frozen food** – Usually no salvage can be attempted unless frozen foods are stored in a completely enclosed walk-in or cabinet freezer and electrical service has not been interrupted for extended periods. Prompt removal of such foods to a suitable storage unit is necessary to save the product.

- **Produce (fresh or dried)** – Usually, no attempt to salvage can be permitted and all such products must be destroyed.
- **Canned goods** – Where heat and water damage has been minimal, canned goods can be salvaged quickly by cleaning the exterior surfaces and removing them to suitable storage areas, preferably away from the fire scene.

Cleaning and re-labeling relatively small quantities of canned goods is usually not attempted because of the cost involved compared to the lower value of the salvaged product.



### General Cleanup Considerations

- All areas affected by the fire must be cleaned and sanitized.
- All damaged food products, equipment, utensils, linens, and single service/use items must be removed from the premises as necessary.
- Re-occupancy should be allowed only after the fire department has determined the structure is safe.



### Disposal of Food

If it is determined food must be discarded:

- Remove to a designated condemned food storage area away and secure in covered refuse containers or other isolated areas to prevent either service to the public or accidental contamination of the facility and other food.
- If the food must be retained until the distributor can credit the facility, it must be clearly labeled as "NOT FOR SALE."
- Discarded refrigerated food may be stored in a refrigerated location separate from other food and held for credit until recorded by food supplier/distributor.
- The facility should document the type and amount of food, costs, and the reason for disposal for insurance and regulatory purposes.
- Small volumes of food to be discarded can be denatured with a cleaning product (such as bleach) and placed in a covered refuse bin outside the facility.

- Large volumes of food should be stored in covered refuse containers in a secure location and disposed of by a refuse disposal company as soon as possible.
- All food waste is to be disposed of in accordance with state and local waste disposal regulations in a licensed landfill.
- Local landfills should be contacted prior to delivery of food from a private individual or carrier to insure acceptance of the waste. For a listing of licensed landfills, visit the Michigan Department of Environmental Quality website at [www.michigan.gov/deq](http://www.michigan.gov/deq) (click on waste / solid waste / solid waste facilities).

**Emergency Action Plans for**  
**Flood**





# **Emergency Action Plan**

## **Flood**

*For single events affecting an individual establishment, the permit holder must close and report to the regulatory authority.*

### **I. Assessment**

In the event of an emergency involving a flood, appropriate food establishment responses must be taken after an assessment of multiple factors including but not limited to:

- Complexity and scope of food operations.
- Duration of the emergency event.
- Impact on other critical infrastructure and services (example: water supply, food, equipment, linens, single service, wastewater disposal, site drainage, building access, indoor air quality).
- Availability of alternative procedures that can be used to meet Food Code and Food Law requirements.

A food establishment manager (or the “Person-in-Charge”) is responsible for conducting both initial and ongoing assessments to ensure consistent compliance with food safety requirements.

### **II. Response**

The following are temporary alternative procedures that can be taken to address specific affected food operations after a flood.

#### **Affected Operations**

**Minor leakage** from a water line or incidental water accumulation on a floor. Food, utensils, equipment, clean linens, single service/use items not affected.

##### **Alternative Procedure**

- Unaffected areas of the establishment may remain open while repairs/recovery take place. Minimize traffic from flooded areas to unaffected food areas.

**Flooding inside the building** due to the overflow of a body of water, poor surface drainage, a major break in a water line, etc. affecting food, utensils, equipment, clean linens, or single service/use items.

#### Alternative Procedure

- Discontinue operation. Resume operations only after recovery steps have been completed.

### III. Recovery

Recovery involves the necessary steps for re-opening and returning to a normal safe operations.

**A food establishment that was ordered or otherwise required to cease operations may not re-open until authorization has been granted by the regulatory authority.**



#### The Permit Holder will:

- Sort the salvageable from the non-salvageable foods, equipment, utensils, linens, and single service items as quickly as possible.
- Properly dispose of the non-salvageable items.
- Contact the local building department and other appropriate agencies to determine if the building structure is safe and approved for occupancy.
- Provide general clean-up while ensuring worker health and safety. Clean and sanitize equipment and utensils.

For information on air quality after a flood, see the U.S. Environmental Protection Agency (EPA) publication “Fact Sheet: Flood Cleanup - Avoiding Indoor Air Quality Problems” at: [www.epa.gov/iaq/pdfs/flood.pdf](http://www.epa.gov/iaq/pdfs/flood.pdf).



#### Personal Health and Safety Considerations for Employees Involved in Clean-up

- Wear eye protection.
- Wear rubber boots that can be washed and sanitized after the event.
- Wear protective clothing such as coveralls.
- Do not allow employees to walk between the affected area and other areas of the establishment without removing footwear and protective clothing.
- Follow OSHA rules for handling detergents, sanitizers, and other chemicals used in the cleaning process.

- Handwashing – Immediately after working with contaminated materials and before engaging in food preparation activities (working with exposed food, clean equipment and utensils, unwrapped single service/use articles).
  - Double hand washing: Clean hands and exposed portions of the arms using a cleaning compound in a properly equipped lavatory, by vigorously rubbing together the surfaces of their lathered hands and arms for at least 20 seconds and thoroughly rinsing with clean water. Repeat.
  - Dry hands using disposable towels.
  - Use a disposable towel to turn off the water to prevent re-contaminating the hands.
  - Follow-up with a hand sanitizer.
- Have janitorial staff clean and disinfect the lavatory faucets and other portions of the lavatory after use to prevent transferring any contamination to food handlers.

### Clean-up

- All damaged food equipment, utensils, linens, and single service items must be destroyed and properly disposed.
- Floors, walls, furnishings, carpets, utensils, and equipment damaged beyond salvage must be removed and replaced as necessary.
- Affected walls, floors, and equipment surfaces must be cleaned with soap and water, rinsed, and sanitized. Carpets should be either removed or steam cleaned.
- Remove wet materials. Dispose of any materials that cannot be effectively cleaned and sanitized.
- Remove any standing water.
- Clean and sanitize any utensils and equipment in the affected area.
- Use a detergent solution to clean floors, equipment, and other affected areas followed by a clean water rinse.
- Sanitize the floor and any other affected areas by using a clear water sanitizer solution (eight ounces of bleach per five gallons of water = 500 part per million chlorine solution).

- Air-dry the affected area.
- Launder or discard mop heads and other cleaning aids that contacted flood water.
- Alternative measure: Hire a janitorial service having expertise in cleaning food establishments exposed to floods.
- Contaminated Food, Linens, Single Service / Use Items.
  - Discard any food items (packaged or unpackaged) in contact with flood water.
  - Launder any linens or uniforms in contact with flood water.
    - Launder separately from other linens.
    - Use bleach.
    - Use a mechanical dryer.
  - Discard any single service / use items in contact with flood water.



### General Flood Salvage Assessment

Flood waters may carry silt, raw sewage, oil, or chemical waste making storm-damaged foods unsafe to eat if packaging is contaminated. Discard any food or food packaging materials coming into contact with flood water. Very few food or beverage items can be saved after being exposed to flood water. Food items in soft packaging or with screw-top lids must be destroyed. In some cases canned goods in metal cans or rigid plastic containers can be saved. Even so, the condition of the can is another limiting factor. The presence of rust, soil, or destroyed labeling precludes salvage.

Flood water can make foods unsafe to eat, especially if packaging is contaminated. **Discard** the following foods if water has covered, splashed, dripped on, or seeped into the package:

- Alcoholic beverages: The Michigan Liquor Control Commission (MLCC) will usually request a destruction order for all such products. In some cases, “returnable” empty cans or bottles may be salvaged for their deposit value. Occasionally, MLCC will honor seizure of the total inventory and not require a separate order. MLCC should be consulted in all instances.

- Exposed foods, bulk foods, fresh produce, meat, poultry, fish and eggs.
- Any foods packaged in paper, plastic, cloth, or fiber.
- Cardboard boxes, even if the contents appear dry, including cereals, pasta products, rice, salt.
- Foods with cardboard seals, such as mayonnaise and salad dressing, or foil or cellophane packages.
- Food in glass jars, including unopened jars with waxed paper, foil, cellophane, or cloth covers.
- Foods, liquids or beverages in crown-capped bottles or containers with pull-tab tops, corks, or screw caps.
- All opened containers and packages; foods in bags or canisters.
- Cans that are dented, leaking, bulging, or rusted.
- Cans that have been tossed about and are far from their normal storage spot (possibility of pinholes or seam fractures).
- Cans may not be sold without all required labeling information. Therefore, cans with damaged labels should be discarded.



### **Salvaged Goods – Reconditioning**

If the quantities of food involved are large (e.g. a large supermarket or a food warehouse), it may be feasible to attempt salvage for either human or animal consumption. There are, however, no approved re-conditioners of distressed goods in Michigan. They must either be destroyed or moved out of state under seizure to approved firms that have reconditioning capability and is coordinated with the U.S. Food and Drug Administration (FDA) and the other states' officials. In such cases, contact the Food and Dairy Division's Lansing Office to coordinate the transport of these foods. The move must be supervised at all times with the products under seizure until under the control of the FDA or officials at state of destination.

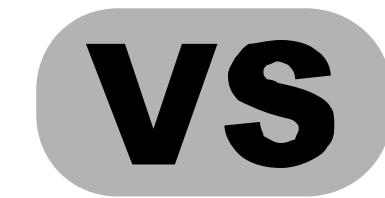


## Disposal of Food

- Move food to a designated condemned food storage area and secure in covered refuse containers or other isolated areas to prevent either service to the public, or accidental contamination of the facility and other food.
- If the food must be retained until the distributor can credit the facility, it must be clearly labeled as "NOT FOR SALE."
- Discarded, refrigerated food may be recorded by food supplier/distributor.
- The facility should document the type and amount of food, costs, and the reason for disposal for insurance and regulatory purposes.
- Small volumes of food to be discarded can be denatured with a cleaning product (such as bleach) and placed in a covered refuse bin outside the facility.
- Large volumes of food should be stored in covered refuse containers in a secure location and disposed of by a refuse disposal company as soon as possible.
- All food waste is to be disposed of in accordance with state and local waste disposal regulations in a licensed landfill.
- Local landfills should be contacted prior to delivery of food from a private individual or carrier to insure acceptance of the waste.

For a listing of licensed landfills, visit the Michigan Department of Environmental Quality website at [www.michigan.gov/deq](http://www.michigan.gov/deq) (click on waste / solid waste / solid waste facilities).

**Emergency Action Plans for  
Vomit and Stool Cleanup**





## **Emergency Procedures for Vomit and Stool Cleanup**

*The following is information derived from “Local Health Department Guidelines for Environmental Cleaning and Disinfection of Norovirus,” which is available online at [www.michigan.gov/documents/GEC\\_165404\\_7.pdf](http://www.michigan.gov/documents/GEC_165404_7.pdf).*

*The following information is specific to Norovirus incidents; however, the recommendations are generally suitable for vomit/stool incidents related to infectious disease.*

**This document contains information for vomit and stool contamination in food service establishments:**

- I. Specific cleanup procedures
- II. Disinfection
- III. Health concerns of using bleach
- IV. Management of ill employees in retail food establishments

**Noroviruses** are a group of viruses that cause acute gastroenteritis in humans. The symptoms of Norovirus infection include nausea, vomiting, diarrhea, cramping, and low-grade fever. Noroviruses are transmitted through the fecal-oral route, either by consumption of fecally contaminated food or water, direct person-to-person spread, or environmental and fomite contamination.

### **Personal Protective Equipment Needed:**

Disposable gloves, masks, eye protection or face shields, and gown or other protective clothing. Please put on all protective equipment before beginning cleaning procedure.

### **General Warning:**

Chlorine bleach may damage fabrics and other surfaces. Please spot test an area before applying to a visible surface. For health concerns, see Section III.

## I. Specific cleanup procedures

**For cleaning spills of vomit or stool, a two-step process should be used:**

1. Visible/organic debris should be cleaned up with absorbent material (double layer) and discard in a plastic bag to minimize aerosols.
2. Liberally disinfect area and objects surrounding the area with an appropriate environmental disinfectant (multiple applications may be required). Ensure correct dilution and contact time with the appropriate environmental disinfectant.

**For more information on disinfection, refer to Section II.**

### **Hard surfaces**

- Clean up visible/organic debris with absorbent material (double-layer) and discard in a plastic bag to minimize aerosols. Disinfect with bleach and rinse surface with water if located in a food preparation area.

### **Carpet/Upholstered Furniture**

- Clean up visible debris with absorbent material (double-layer) and discard in a plastic bag to minimize aerosols – disinfecting with bleach may discolor carpet – steam clean (heat inactivation) 158°F for five minutes or 212°F for one minute for complete inactivation.

### **Linens/Clothing/Textiles**

- If soiled, carefully remove vomit or stool to minimize aerosols. Keep contaminated and uncontaminated clothes separated. Minimize disruption of soiled linens and laundry. Aerosols created may pose a risk for transmission. Wash items in a pre-wash cycle, then use a regular wash cycle using detergent and dry separately from uncontaminated clothing at a temperature greater than 170°F. Keep clean and soiled linens/clothing/textiles separate at all times.

### **Surfaces Corrodible/Damageable by Bleach**

- Use Environmental Protection Agency (EPA) registered phenolic solutions (concentrated Lysol® or concentrated Pinesol®) mixed at **two to four times** the manufacturer's recommended concentration for surfaces that are damaged or corrodible by bleach.

## **II. Disinfection**

### **Examples of Items to Disinfect:**

Doorknobs, faucets, sinks, toilets, bath rails, phones, counters, chairs (including backs), tables, hand rails, elevator buttons, light switches, food equipment, prep surfaces, utensils, aprons, uniforms, etc.

**What works best:** Chlorine bleach (sodium hypochlorite -NaOCl).

### **Chlorine Bleach Concentrations and Mixing Instructions:**

- **Use for stainless steel, food/mouth contact items.**
- 1 tablespoon of bleach in one-gallon water (1:250 dilution).
- **Use for non-porous surfaces, tile floors, counter-tops, sinks, toilets.**
- 1/3-cup bleach in one-gallon water (1:50 dilution).
- **Use for porous surfaces, wooden floors.**
- One-cup bleach, plus 2/3-cup bleach in one-gallon water (1:10 dilution).

### **Contact Time**

- Leave bleach on surface for 10 to 20 minutes and then rinse with clean water.

### **Stability of Chlorine Bleach**

- Open bottles of concentrated chlorine will lose effectiveness after 30 days. To ensure adequate disinfection for vomit/fecal cleanup, using an unopened bottle of chlorine bleach is strongly recommended. Prepare a dilution of fresh bleach every day of use and discard unused portions.

### **Other Effective Disinfectants**

- Glutaraldehyde (0.5 percent) or Iodine (0.8 percent) mixed at the manufacturer's recommendations.
- A phenolic environmental disinfectant (Lysol® or Pinesol®) may be effective, but may require **two to four times** more concentration than the manufacturer's recommendation and may pose significant health risks to workers, pets, or yourself. Use extreme caution when using these products.  
Please read the manufacturer's warning.

### **Ineffective Disinfectants**

- Quaternary compounds, ethanol, or anionic compounds.

### **III. Health concerns with using chlorine bleach**

#### **Mixing Hazards**

- USE ONLY IN WELL-VENTILATED AREAS and do not mix chemicals. Adverse effects of household cleaners are caused by prolonged exposure to an irritant gas in a poorly ventilated area. The most common inappropriate mixtures of cleaning agents are bleach with acids (like vinegar) or ammonia (Windex ®). Potential irritants released from such mixtures are chlorine gas, chloramines, and ammonia gas. Follow manufacturer's label instructions.

#### **Health Hazards**

- Chlorine bleach is corrosive and irritating to all mucosal tissue, skin, eyes, and upper and lower respiratory tracts. Avoid spray bottle application with any disinfectant.

#### **Personal Protective Equipment**

- Disposable gloves, masks, eye protection or face shields, and gown or protective clothing.
- Environmental cleaning using a more concentrated disinfectant will require a heavier duty glove than a simple non-sterile latex/vinyl glove.

### **IV. Management of ill employees in retail food establishments**

Please contact your local health department and/or follow the employee exclusion and restriction requirements of the Food Code, Sections 2-201.11 through 2-201.13.

## **Legal Authority**





## **Food Code / Food Law Authorities:**

Here are some Food Law and Food Code authorities addressing action taken by the regulatory authority and food establishment operators when an imminent health hazard occurs.

- **Definition:** Michigan Food Law, Sec. 1109 (a) states:  
“Imminent or substantial hazard” means a condition at a food establishment that the director determines requires immediate action to prevent endangering the health of people.
- **Responsibility of the Permit Holder:**
  - Food Code, Section 8-404.11 Ceasing Operations and Reporting.
    - A** Except as specified in ¶ (B) of this section, a permit holder shall immediately discontinue operations and notify the regulatory authority if an imminent health hazard may exist because of an emergency such as a fire, flood, extended interruption of electrical or water service, sewage backup, misuse of poisonous or toxic materials, onset of an apparent foodborne illness outbreak, gross insanitary occurrence or condition, or other circumstance that may endanger public health.
    - B** A permit holder need not discontinue operations in an area of an establishment that is unaffected by the imminent health hazard.
  - Michigan Food Law, Sec. 2113 (2) states:
    - (2) A food establishment ordered to cease food operations under subsection (1) shall not resume operations until the director determines, upon reevaluation, that the conditions responsible for the order to cease operations no longer exist. The director shall offer an opportunity for reevaluation upon request of the license holder of the establishment.

- **Powers and Duties of the Department**

- The Michigan Food Law, Sec. 2113  
(1) states:

The director may order immediate cessation of operation of a food establishment upon a determination that continued operation would create an imminent or substantial hazard to the public health.

- The Michigan Food Law, Sec. 4125  
(4) states:

Based upon facts submitted by a person familiar with those facts or upon information and belief alleging that an imminent threat to the public health, safety, or welfare exists, the director may summarily suspend a license or registration issued under this act. A person whose license or registration has been summarily suspended under this section may petition the director to dissolve the order. Upon receipt of such a petition, the director shall immediately schedule a hearing to decide whether to grant or deny the petition to dissolve. The presiding officer shall grant the requested relief dissolving the summary suspension order unless sufficient evidence is presented that an imminent threat to the public, health, safety, or welfare exists requiring emergency action and continuation of the director's summary suspension order.

- **Administrative Remedies**

- The Michigan Food Law, Section 2113 (3) states:  
If the director orders an immediate cessation of operation of a food establishment under subsection (1), the license holder may request an administrative hearing.

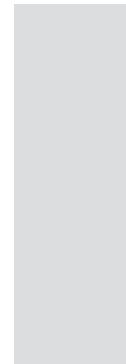
- The Michigan Food Law, Section 4127(1) states:

After the regulatory authority receives a petition for a hearing from a license holder whose license is summarily suspended under section 4125, the proceedings shall be promptly commenced and determined as required by section 92 of the administrative procedures act of 1969, 1969 PA 306, MCL 24.292.

It should be noted that under the MICHIGAN EMERGENCY MANAGEMENT ACT, ACT 390 OF 1976, the Governor may suspend certain laws or rules as necessary to deal with a disaster.



## **Emergency Contact Information**





**Emergency Contact Information**

Name	Phone #	Emergency #	Contact/Company Name
Organization:			
Manager			
Regional Office			
Home Office			
Insurance Carrier			
Food Supplier			
Lawyer			
Utility Companies			
Water			
Sewer			
Electricity			
Gas			
Phone			
Cable			
Emergency Broadcast			
Radio/TV station			
Contractors			
Plumber			
Electrician			
Well Driller			
Water Utility Company			
Licensed Water Hauler			
Bottled Water			
Commercial Ice			
Dry Ice			
Refrigerated Truck			
Refrigerated			
Warehouse			
Portable Generator			

**Emergency Contact Information**

Name	Phone #	Emergency #	Contact/Company Name
Waste Hauler			
Local Landfill			
Septic Tank Pumper			
Drain Cleaner			
Cleaning Equipment Supplier			
Janitorial Service			
Fire Extinguisher Service			
Bldg. Restoration Specialist			
Security / Safety			
Miscellaneous			
Local Poison Control Center			
National Poison Control Center	1 800 222-1222		
Chemtrec	1 800 262-8200		
Michigan Restaurant Association	517 482-5244		
Michigan Grocers Association	517 373-6800		
Associated Food Dealers	248 671-9600		
Michigan Licensed Beverage Association	800 292-2896		

## **Emergency Contact Information**



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