Emergency Action Plan
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:

Emergency Preparedness Committee of Council II
2004-2006 Conference for Food Protection

with much appreciation to:
CITY OF DETROIT HEALTH DEPARTMENT
MACOMB COUNTY HEALTH DEPARTMENT
MICHIGAN DEPARTMENT OF AGRICULTURE
MICHIGAN RESTAURANT ASSOCIATION
OAKLAND COUNTY HEALTH DEPARTMENT

Revised by:
Emergency Preparedness and Response Committee of Council II 2006-2008 CFP
with much appreciation to:
NJ DEPARTMENT OF HEALTH AND SENIOR SERVICES
FDA-CFSAN
USDA
US POSTAL SERVICE
US DEPARTMENT OF HOMELAND SECURITY
FOOD MARKETING INSTITUTE

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Introduction

Planning Ahead

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 that 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.

It is therefore 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 many people are competing for ice, batteries, generators, refrigerated trucks, etc.? Would your business survive?

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. Manager or the Person-in-charge is also responsible for assuring all food service employees know where written procedures can be located and are trained on what actions to take as a part of the response procedures.

This document is designed to provide guidance in the development of emergency procedures for retail food establishments. Individual establishments can use the samples and resources in this document to develop procedures that meet the needs of their specific organization. In the event disaster strikes, do you know what your organization's emergency procedures are?

Interruption of Electrical Service:

- Power outages are the most frequent type of man made disasters. Statistics indicate that the average power outage lasts four hours, but could last for days. The August 2003 power outage disaster affecting large areas in the northeastern part of the country lasted four days.
- Consider your access to an electrical generator to be used in emergencies. Make certain that the generator has the capacity to operate critical equipment such as refrigeration and freezer units, pumps, safety lighting, hot water heaters, etc. Make certain that individuals are trained to operate the equipment safely. Be sure to consult with a licensed electrician. Advise the utility company that 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 to which 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?
- Develop a plan to monitor and record product temperatures and a plan to relocate product(s) from display cases to walk in coolers, freezers, or reefers (refrigerated trailers) as needed to maintain safe internal temperatures.
- 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. If used, pack potentially hazardous food in dry ice using precautions, such as utilizing insulated gloves to handle and venting the area before entering.
- 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 that can help you such as the utility company, garbage hauling service, ice supplier, refrigerated truck company, food warehouse, septic tank pumping service, local health department, emergency broadcast station frequency numbers, etc.
- Develop a list of equipment that uses electricity in your establishment and develop a contingency plan that describes what you would do if electrical service is interrupted. Use the *Emergency Guidance for Retail Food Establishments* as a guide to help describe the steps that you would take in your own establishment.
- Develop a plan for communicating with key people in your organization. Keep an updated list of emergency contact numbers with you at all times.
    - Consider the purchase of a phone that can use common batteries or can be plugged in to alternative energy sources (such as a car lighter).
    - Utilize a cellular or satellite service that can provide continuous service in the event of a power outage.
    - Consider use of wireless e-mails, text messaging, instant messaging or other alternative means of communication.
    - Plan how important documents and other information will be communicated without the use of computers and fax machines.

Water Supply Related Issues:

- Prepare an "emergency menu" in advance including recipes for food items that require 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 supplier of bottled water 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 a supplier of ice in order to assure you that you will have access to ice during an emergency.
- Maintain current contact information for people that can help you such as your plumber, water well drilling contractor, utility company, ice supplier, water supplier, fire department, local health department, emergency broadcast station frequency numbers, etc.
- Develop a list of equipment that uses water in your establishment and develop a contingency plan that describes what you would do if the water is either interrupted or contaminated. Use the Emergency Guidance for Retail Food Establishments as a guide to help describe the steps that 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 Guidance for Retail Food Establishments as a guide to help describe the steps that you would take in your own establishment.
- Develop a contingency plan for toilets. If the drain no longer functions, where will your employees and patrons find toilet facilities available for use?
- Maintain current contact information for people that can help you such as the plumber, drain cleaning service, utility company, septic tank pumping service, local health department, etc.

In Case of Fire:

- Post the phone number of the fire department in a conspicuous place by each phone.
- Ask the local fire marshal 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.
- Assure that your fire extinguisher is charged and Ansul hood systems inspections are up-to-date.
- Maintain current contact information for people that can help you such as the fire department, police department, insurance company, water and fire damage restoration company, utility companies, lawyer, local health department, etc.

In Case of Flood:

- Determine if food and other products that can be damaged by water are being stored in areas prone to flooding, are off of the floor, are 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.
- Have an alternate egress in and out of the property identified in case of flood debris blockage.
- Consult with a rubbish management company for removal of any flood debris.
- Maintain current contact information for people that can help you such as the plumber, electrician, local rent-all store, fire department, police department, insurance company, water damage restoration company, utility companies, local health department, etc.

In Case of Infectious Disease Contamination: (any situation where there is a potential exposure to a person's blood or body fluids):

- Only employees trained in the appropriate use of personal protective equipment should respond to the incident. Recommended equipment includes nonabsorbent disposable gloves, facemasks, eye goggles, and red biohazard disposable bags.
- Assume all blood and body fluids are infectious. Always wear personal nonabsorbent, disposable gloves and other protective equipment (face mask, and/or goggles dependent on the risk present) and use a protective "pocket mask" if performing rescue breathing.

In case of Potential Terrorist Threats (Follow FDA ALERT system guidelines):

- **A**SSURE that the supplies and ingredients you use are from safe and secure sources.
- **L**OOK after the security of the products and ingredients in your facility.
- **E**MPLOYEES must have background checks before hire and vendors must show identification.
- **R**EPORTS of products received and sold must be available, per the Public Health Security and Bioterrorism Preparedness Act of 2002.
- **T**HREATS must be addressed through notification of appropriate regulatory authorities.

In case of Pandemic influenza:

- All retail food establishments should prepare plans regarding the disruption or continuation of service during a pandemic influenza.

Sample references:
http://www.ohiopandemicflu.gov/docs/A-ZBusiness.pdf
http://www.pandemicflu.gov/plan/pdf/businesschecklist.pdf

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, interruption of water service, contaminated water supply, fire, flood, sewage back-up, **infectious disease contamination, or potential terrorist threat** 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, interruption of water service, contaminated water supply, fire, flood, sewage back-up, infectious disease contamination, or potential terrorist threat 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 applicable regulations.
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 action plan 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 action plan.
3. Communicate with the industry during widespread emergencies through business associations (i.e. FMI, NRA, etc.), conference calls, mass media, hot lines, web sites, etc.
4. Conduct surveillance during a widespread emergency to determine if permit holders are following the action plan.
5. Conduct enforcement activity as appropriate to protect public health.

EMERGENCY GUIDANCE

Interruption of Electrical Service

For the purpose of defining an imminent health hazard for this guidance, an extended interruption of electrical service means that the electrical service has been interrupted for ***2 hours or more.*** *For single events affecting an individual establishment, it is recommended that the permit holder note the date and time, notify the regulatory authority at the onset of the interruption, and implement their emergency procedures. Assess the situation. Immediately discontinue operation if a safe operation cannot be maintained using an alternative procedure. Follow the appropriate emergency procedures if approved by the regulatory authority or remain closed until granted approval to re-open by 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: refrigeration).
- The availability of alternative procedures that can be used to meet Food Code and Food Law requirements.

II. Response

The following are temporary alternative procedures that can 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 2 hours (see chart in Recovery Section for disposition of potentially hazardous food) – document that you have acted responsibly. In open upright retail cases where doors are not available, monitor/document product temperatures every hour.
- Keep refrigeration equipment doors closed. In open upright retail cases where doors are not available, cover the cases with cardboard, plastic or equivalent to retain cold air.
- Pack potentially hazardous food in commercially made ice or dry ice (use precautions for using dry ice by using insulated gloves and venting the area before entering).
- Relocate product in cases to walk-in boxes, freezers, or reefers if safe temperatures cannot be maintained in the cases.
- Do not put hot food into refrigeration equipment.

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 operated lantern, flashlight, 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 raw animal/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 after 4 hours from being removed from temperature control (below 135° F)
  Or
- Use an alternate heat source such as “canned heat” and monitor temperatures hourly. Note: If power returns within 4 hours, reheat food to 165° 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. 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. (See Extended Interruption of Water Service for re-opening considerations relative to the water supply.)

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.

Refrigerated Food Safety Guide

When power is restored, the following table should be used as a guide for handling potentially hazardous food (PHF / TCS) stored in refrigeration units that may have lost power. When in doubt, throw it out! (See the FDA Food Code, Chapter 3 for additional information on maintaining safe food temperatures.)

COLD FOODS INTERNAL TEMPERATURE GUIDANCE

Time	42° - 45° F	46° - 50° F	51° F or above
0-2 hrs	PHF (TCS) can be sold	Immediately cool PHF (TCS) foods to 41°F or below within 2 hours	PHF (TCS) foods cannot be sold. DESTROY the food.*
2-3 hrs	PHF (TCS) can be sold but must be cooled to 41°F or below within 2 hours	Immediately cool PHF (TCS) to 41°F or below within 1 hour	
4 hrs	Immediately cool PHF (TCS) to 41°F or below within 1 hour	PHF (TCS) foods cannot be sold. DESTROY the food.*	
5+ hrs	PHF (TCS) foods cannot be sold. DESTROY the food.*		

* Regulatory authority may determine disposition of food depending on commodity or item and the ability to cool it down to 41°F or below within 2 hours for some foods such as harder cheeses, butters, margarines, etc with low a_w and/or foods with lower pH provided refrigeration was restored within 4 hours and documentation is available. The time-temperature requirements for cooling foods are more stringent than FDA Food Code.

If the location was vacated during the power outage, upon return the storage equipment may be fully functioning and the food may be at proper temperature. If the duration of the power outage and the highest temperature of the food can not be verified then all potentially hazardous food must be discarded.

Frozen foods that remain solid or semi-solid can be refrozen if food packages show no evidence of thawing such as weeping, stains, physical depreciation, evaporation, or container damage. If product is somewhat thawed or soft and has not exceeded 41°F on the outside and the inner core is still solid, it can be refrozen or further processed/cooked by food service operators. This product is not recommended for retail sale due to quality deficiencies.

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

- Electricity, potable 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 cleaned and sanitized prior to resuming food-handling operations. This includes ice bins in ice machines where ice has melted during the interruption.
- Flush all water lines, change filters, etc.

Disposal of Food:
Small volumes of food can be denatured (such as with bleach, a detergent or other cleaning product to render it unusable) or alternatively destroyed 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.

Interruption of Water Service

For the purpose of defining an imminent health hazard for this guidance, an extended interruption of water service means that the water service has been ***interrupted for 2 hours or more.*** *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 emergency procedures. Assess the situation. Immediately discontinue operation if a safe operation cannot be maintained using an alternative procedure. Follow the appropriate emergency procedures if approved by the regulatory authority or remain closed until granted approval to re-open by 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, and
- 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 an extended interruption of water service.

Affected Operations

Handwashing – No water to wash hands in food preparation area.

Alternative Procedure

- Do not touch ready-to-eat foods with bare hands. Suspend otherwise approved alternative procedures for bare hand contact.
- Chemically treated towelettes (not to be used for bare hand contact) may be used for cleaning hands if the food items offered are pre-packaged 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 cleaner, disposable towels, and a waste receptacle.
  And/Or
- Use of commercially bottled water with FDA approved germicidal soap followed up by an FDA Food Code compliant hand antiseptic approved for use as an indirect food additive.

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 easily 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.
  Or
- Use commercially bottled water or other potable water to flush toilets

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 tanker 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 tanker 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

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 established procedures to wash, rinse and sanitize. Pre-scrape prior to washing as necessary.
  And
- Discontinue operations as 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 reopening 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.

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 such as those via television, radio, newspaper, fax, etc. or, as general guidance, run cold water faucets for at least 5 minutes.
- Equipment with waterline 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 manufacturer's instructions.
- Run water softeners through a regeneration cycle.
- Drain reservoirs in tall buildings.
- Change out all filters.
- Flush beverage machines.
- Flush drinking fountains: run continuously for 5 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 5 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 1 hour and dispose of the first batch of ice.
    - Clean and sanitize all parts and surfaces that come in contact with water and ice, following the manufacturer's instructions.

Food establishments using a Non-Community Water Supply (privately owned well) must follow the disinfection and sampling requirements of the Safe Drinking Water Act as found in 40 CFR 141 and 142 (Code of Federal Regulations). Contact your health department for specific instructions.

Contaminated Water Supply (Biological)

For the purpose of this Emergency Guidance, 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 single events affecting an individual establishment, the permit holder must report to the regulatory authority. Assess the situation. Immediately discontinue operation if a safe operation cannot be maintained using an alternative procedure. Follow the appropriate emergency procedures if approved by the regulatory authority or remain closed until granted approval to re-open by 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; and
- 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 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 1 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 tanker 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.

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.
- Use frozen/canned fruits and 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 tanker truck.

Handwashing

Alternative Procedures

- Use heated bottled water, boiled water, or safe water hauled from an approved public water supply. **Or**
- Do not allow bare hand contact with ready-to-eat food. Suspend otherwise approved alternative procedures for bare hand contact.
  And
- Use tap water and germicidal hand soap when available - followed by an FDA Food Code compliant hand antiseptic.

Cleaning and Sanitizing utensils and tableware

Alternative Procedures

- Use single service utensils and tableware.
  Or
- Use the existing automatic dish machine or the 3-compartment sink. Make certain that 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 that was 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 ensure 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 5 minutes.
- Equipment with waterline 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 manufacturer's instructions.
- Run water softeners through a regeneration cycle.
- Drain reservoirs in tall buildings.
- Flush drinking fountains: run continuously for 5 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 5 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 1 hour and dispose of the first batch of ice.
  - 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, PL93, 523, before resuming operations. Contact your local health department for specific instructions

Sewage Backup

For the purpose of this guidance, 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 that contains 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 report to the regulatory authority. Assess the situation. Immediately discontinue operation if a safe operation cannot be maintained using an alternative procedure. Follow the appropriate emergency procedures if approved by the regulatory authority or remain closed until granted approval to re-open by 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), and
- 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 appliances or fixtures in the establishment that are properly operating.

Handwashing All hand washing sinks in the establishment do not drain
Alternative Procedure

- Chemically treated towelettes (not to be used for bare hand contact) may be used for cleaning hands if the food items offered are prepackaged or otherwise protected from contamination by hands AND a hand washing facility is available at the toilet room location.
  Or
- Hot water can be placed into a 5-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 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 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 and vegetables that do not require washing.
- Use alternate cooling methods.
- Modify the menu to avoid procedures requiring the use of a culinary sink.

Ware washing Equipment – all dish machines, 3-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, and 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 safe, normal 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.

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.
- In case 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 having 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.
- 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 lavatory that is properly equipped 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 antiseptic.
  - 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 of.
- 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 and sanitized.
- 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.
    - Disinfect the floor and any other affected areas by using an EPA-registered disinfectant such as a 500 parts per million chlorine solution or other product labeled as a disinfectant. Follow manufacturer's instructions for 'disinfectant' use.
    - 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 that 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, dripped on or seeped into the package:

- Alcoholic beverages: Refer to your local regulatory authority for salvage or destruction.
- 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, 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; and

- 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. The items must either be destroyed or moved to approved firms that have reconditioning capability. Such movement is coordinated with the U.S. Food and Drug Administration and the other states' officials. 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

If it is determined that food must be discarded:

- Remove to a designated condemned food storage area away from food preparation and equipment storage and secured 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 ensure acceptance of the waste.

Fire

For the purpose of this Emergency Guidance, 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. Assess the situation. Immediately discontinue operation if a safe operation cannot be maintained using an alternative procedure. Follow the appropriate emergency procedures if approved by the regulatory authority or remain closed until granted approval to re-open by 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), and
- 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 fire is extinguished using a simple fire-fighting device (i.e. hand held extinguisher) that does not require 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 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:

- 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.

Charitable Donation

It may be possible to divert some foods mentioned above such as minimally damaged canned foods to a local food bank for distribution to charitable organizations. Check with your state or local regulatory authority regarding the Good Samaritan requirements. 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 of 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 wellbeing of the recipient of donated food.

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. The items must either be destroyed or moved to approved firms that have reconditioning capability. Such movement is coordinated with the U.S. Food and Drug Administration and the other states' officials. 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.

The following is a guide for handling specific food items. These recommendations are based on severe fire/smoke damage and the regulatory authority may determine the disposition and salvage of some items depending on the severity of fire, smoke and/or water damage:

- **Alcoholic beverages**: Refer to your local regulatory authority for salvage or destruction.
- **Bottled soft drinks**: Unless protected by a plastic outer wrap or in bottles with sealed screw-on lids, soft drinks in glass bottles are very difficult to salvage. In addition, if soft drinks in plastic bottles have been subjected to excessive heat, fire or smoke, they are almost always deemed unsalvageable. 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 un-cleanable, the contents must be destroyed.
- **Dairy products**: Dairy products must be destroyed with no attempt to salvage if they have been subjected to excessive heat, fire, smoke or water or have been temperature abused due to vulnerable packaging and temperature requirements.
- **Sugars, candies, flour, cereal products, bakery products, dried beans, rice, and other grains**: If subjected to excessive heat, fire, smoke or water damage, 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. If subjected to excessive heat, fire, or smoke, this type of container is very difficult to clean or disinfect due to exposure of the threaded closure and may have to be destroyed.
- **Fish and meats – fresh or frozen**: If they have been subjected to excessive heat, fire, smoke and/or water damage or have been temperature abused, these products must be destroyed.
- **Refrigerated and frozen food**: If refrigerated and frozen foods are stored in a completely enclosed walk in refrigerator or freezer or enclosed case, and electrical service has not been interrupted for extended periods, some product may be salvaged, depending upon the severity of heat, fire, smoke and water and the product exposure to these elements. Prompt removal of such foods to a suitable storage unit is necessary to save the product.
- **Produce – fresh or dried:** If exposed to excessive heat, fire, smoke and/or water damage, no attempt to salvage can be permitted and all such products must be destroyed.
- **Canned goods**: Where the 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 a relatively small quantity 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 that the structure is safe.

Disposal of Food

If it is determined that food must be discarded:

- Remove to a designated condemned food storage area away from food preparation and equipment storage and secured 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.

Flood

For single events affecting an individual establishment, the permit holder must report to the regulatory authority. Assess the situation. Immediately discontinue operation if a safe operation cannot be maintained using an alternative procedure. Follow the appropriate emergency procedures if approved by the regulatory authority or remain closed until granted approval to re-open by 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:

- The complexity and scope of food operations,
- The duration of the emergency event,
- The impact on other critical infrastructure and services (example: water supply, food, equipment, linens, single service, wastewater disposal, site drainage, building access, indoor air quality), and
- 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 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 takes 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. that affects 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 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.

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. EPA publication "Fact Sheet: Flood Cleanup - Avoiding Indoor Air Quality Problems" at: http://www.epa.gov/mold/flood/index.html

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 lavatory that is properly equipped 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 food code compliant hand antiseptic.
  - Have janitorial staff clean the lavatory faucets and other portions of the lavatory after use to prevent transferring any contamination to food handlers.

Clean-up

- To prevent mold and mildew growth, conduct corrective actions within 24-48 hours after the flood waters recede.
- Remove wet materials. Dispose of any materials that cannot be effectively cleaned and sanitized. Remove any standing water.
- Unsalvageable food, food equipment, and all single service items, packaged or unpackaged that came in contact with flood water, must be destroyed and properly disposed.
- Floors, walls, furnishings, carpets, and equipment damaged beyond salvage must be removed and replaced as necessary. Sheet rock is especially susceptible to mold growth and should be removed and replaced if in contact with flood waters.
- Affected walls, floors, and equipment surfaces must be cleaned with soap and water, rinsed, and sanitized. Carpets should be either removed or effectively cleaned and sanitized.

- Use a detergent solution to clean floors, equipment, and other affected areas followed by a clean water rinse.
- Disinfect the floor and any other affected areas by using an EPA-registered disinfectant such as a 500 parts per million chlorine solution or other product labeled as a disinfectant. Follow manufacturer's instructions for 'disinfectant" use.
- Air-dry the affected area.
- Clean and sanitize any utensils and salvageable equipment in the affected area.
- Launder any linens or uniforms in contact with flood water. Launder separately from other linens by using bleach and/or a mechanical dryer.
- Launder or discard mop heads and other cleaning aids that contacted flood water.
- Alternative measure: Hire an outside service having expertise in cleaning and sanitizing food establishments exposed to floods.

General Flood Salvage Assessment
Flood waters may carry silt, raw sewage, oil or chemical waste that can make storm-damaged foods unsafe to eat if packaging is contaminated. Discard any food or food packaging materials that have come 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: Refer to your local regulatory authority for salvage or destruction.
- 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, 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; and
- 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. The items must either be destroyed or moved to approved firms that have reconditioning capability. Such movement is coordinated with the U.S. Food and Drug Administration and the other states' officials. 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

- Remove to a designated condemned food storage area away from food preparation and equipment storage and secured 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" and kept in a refrigerated location separate from other food and held for credit.
- 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.

Wells

- If you have your own well serving your food service business, and the well was covered by the flood, it must be chlorinated and tested prior to use. Please contact your local health department for complete instructions on chlorination. It will be important to know the diameter of the well casing and the depth of the well to complete chlorination.

Sewage Systems

- If your septic tank system was flooded, please call your local health department for an evaluation of the system before using it. Flooded systems may malfunction without proper attention.

Mold

- Organic material, bacteria and other microorganisms are deposited onto hard surfaces and into porous building materials and furnishings by flood waters. Many building materials and furnishings that remain wet for more than 48 hours will develop visible fungal colonies. These colonies are commonly referred to as mold or mildew.

- Molds and mildews resulting from flooding can create significant health risks for occupants. Unintentional ingestion of flood water or sediment can cause gastrointestinal diseases. Inhalation exposure to molds may cause allergy symptoms. These symptoms can often be severe. Some fungi may cause infectious respiratory disease, while others generate toxins that may cause illness.
- Disinfect floors or wood surfaces using an EPA-registered fungicide following label instructions. If such a product is not available, use a solution of 1 tablespoon of chlorine bleach (5.25% concentration) in a gallon of water. Quaternary Ammonium at a concentration of 200 ppm, or other EPA-registered product should be used on surfaces that are salvageable.

Equipment with waterlines

- Take the following precautions when salvaging post-mix and beverage machines, coffee or tea urns, ice machines, glass washers, dishwashers, and other equipment with water connections:
- Flush waterlines, faucet screens and waterline strainers, and purge fixtures of any standing water.
- Discard any equipment that is damaged and can't be restored to safe sanitary standards. This may include flood-damaged wood/particle board or plastic laminate components (counters, cabinets, bars, etc.)

Walk-In Cooler Restoration Guidelines

In general, the walk-in cooler in a flooded food service facility needs to be reviewed on a case by case basis.

- If the inside of the cooler has a quarry tile floor with 6-inch sealed coving, and the floor did not flood over the coving, the interior surface can be cleaned, scrubbed, and disinfected with an EPA-registered disinfectant. Follow label use instructions for disinfecting floors. In the absence of EPA-registered product, a solution of 1 tablespoon of chlorine bleach (5.25% concentration) in 1 gallon of water may be used. Quaternary Ammonium at a concentration of 200 ppm, or other EPA-registered product should be used on equipment and structural surfaces that are salvageable.
- If the inside of the cooler has walls that sit directly on the floor, and the caulking seal is intact, the cooler walls can be cleaned, scrubbed, and disinfected with an EPA-registered disinfectant following label instructions or using 1 cup bleach (5.25% concentration) in 4 gallons of water. The walls of the cooler should be made of wood frame with closed foam insulation for this process to be successful.
- If the inside of the walk-in cooler was damaged by holes or cuts, and the flood water rose above those holes or cuts, the entire panel will need to be replaced.
- On a free-standing walk-in, the panels can be disassembled, cleaned, and sanitized to remove the silt below the panel. This would apply when the cooler wall did not have a satisfactory seal at the wall and floor juncture.
- Flooded walk-in coolers with a permeable wood floor need to have the floor replaced.
- Walk-in coolers sitting directly on the floor with an aluminum interior floor should have the floor raised and power washed below the floor to remove the river silt.
- Remediation techniques will not guarantee the absence of odors that may develop in the future.

******WARNING******
Always use extreme caution when restarting equipment with electrical components

Walls and Ceilings

- If flood water soaked the sheet rock, insulation, or ceiling tiles, remove these items 30 inches above the waterline.
- Paneling may be removed and saved but you will still need to get air circulating in the wall cavities to dry the studs and sills. Wet studs and sills do not need to be replaced if allowed to dry properly. Flooded portions of studs and sills should be treated with biocides such as bleach and water.
- For paneling, carefully pry the bottom off each panel away from the wall. Use something to hold the bottom away from the sill so the cavities can be drained, cleaned, checked for molds, and dried out. You can nail them back into shape after they and the studs dry out. Remove and discard flooded insulation.
- Undamaged walls, hard surfaced floors, and other surfaces should be cleaned and sanitized with a solution of 1 tablespoon of chlorine bleach (5.25% concentration) in 1 gallon of water. Quaternary Ammonium at a concentration of 200 ppm, or other EPA-registered product should be used on surfaces that are salvageable.
- Vinyl wall covering should be removed and thrown out if soaked.

Floors and Floor Coverings

- Remove any linoleum or tile that been flooded, so you can clean and dry the wooden sub flooring. When placed on a concrete base, only loose linoleum or tile need be removed. Linoleum or vinyl tile can be saved and reused if it can be cleaned and sanitized.
- Wall-to-wall carpeting, padding and foam rubber should be thrown away if they were soaked with flood water.
- Remove tile or vinyl flooring if it is warped, loose, or has a foam-rubber pad.

Duct Work

- Vents and duct work for air conditioning/heating units that were submerged in flood waters need thorough cleaning and sanitizing. If it is impossible to do this, it will be necessary to replace them. Insulation around ducts, or ducts made of compressed fiberglass will need to be replaced.

Safety Guidelines for Building Entry and Occupancy
Can be found at the Department of Insurance and Building Inspectors Association websites: www.ncdoi.com/ and www.ncbia.org

Infectious Disease Contamination - Blood borne Incidents:

I. Assessment

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

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

II. Response

The following are procedures that can be taken to address specific food operations after a blood borne contamination event.

- Only employees trained in the appropriate use of personal protective equipment should respond to the incident.
- Assume all blood and body fluids are infectious. Always wear personal nonabsorbent, disposable gloves and other protective equipment (face mask, and/or goggles dependent on the risk present) and use a protective "pocket mask" if performing rescue breathing. Recommend double gloving for any blood or bodily fluid clean-up
- Thoroughly spray contaminated surface areas with a disinfectant that is EPA-registered for blood borne pathogens such as HIV-1, Hepatitis B, and Hepatitis C in accordance with the product label. In the absence of such a product, a disinfectant solution made from at least 1 ½ cups of bleach (5.25% concentration) in a gallon of water may be used in an emergency.
- Pick up any contaminated solid material making sure not to use your hands to pick up any sharp objects, such as glass. Use a broom, dustpan or similar cleaning tool to pick up sharp objects.
- Treat again with a disinfectant as above or wipe down the contaminated area with a paper towel moistened with disinfectant solution of 1 ½ cups of chlorine bleach (5.25% concentration) in a gallon of water.
- Place all contaminated solids or clean up materials in a separate bag marked biohazard. (Preferably a red bag). Sharp objects must be placed in a puncture proof container before being placed in the bag.
- Clean and sanitize any tools or other non-disposable items used in the clean up.
- Remove personal protective equipment and place them in the biohazard bag.
- Wrap and tie the biohazard bag and give it to the person in charge.
- Wash hands and face immediately using germicidal soap.

If you are exposed to blood borne pathogens, immediately wash all portions of your body; notify management of the incident, seek medical assistance and follow-up and document on an incident report.

III. Recovery

Cleaning and disinfecting areas affected by blood spillage are all that's necessary to resume operations.

Infectious Disease Contamination - Vomit Incidents:

I. Assessment

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

- The complexity and scope of the food operations.
- The duration of the emergency event.
- The impact on other critical infrastructure and services (example: water supply, food, equipment, linens, single service, wastewater disposal, site drainage, building access, indoor air quality) and
- The availability of alternative procedures that can be used to meet Food Code and Food Law requirements including notification of the regulatory authority if diagnosed as norovirus, exclusion of sick employees, and any necessary destruction or recall of food products.

II. Response

The following are procedures that can be taken to address specific food operations after a vomiting contamination event.

- Only employees trained in the appropriate use of personal protective equipment should respond to the incident.
- Cleaning staff must use disposable facemasks, nonabsorbent disposable gloves and aprons when cleaning up after a vomit incident.
- When a food worker or patron vomits in a public area or food preparation area, the vomit should be treated as potentially infectious material. All individuals in the immediate area of the vomit incident within a 25 foot radius should be cleared from the area before the vomit is cleaned up.
- Because of potential airborne contamination, the vomit, should be immediately covered with a disposable cloth and everything, including the vomit and food-contact surfaces, within a 25 foot radius, be doused with an EPA-registered disinfectant with a claim against norovirus and removed. In the absence of such a product, expose to 5000 ppm hypochlorite solution (made from 5.25% hypochlorite bleach) for at least 5 minutes in order to eliminate norovirus. This would be equivalent to 1 2/3 cups of chlorine bleach (5.25%) concentration) in a gallon of water. Due to high concentration of chlorine, make sure that the area is well ventilated. If the contaminated area is a food contact surface, then the disinfection achieved at this high concentration exposure must be followed by a clear-water rinse and proper sanitizer rinse following normal procedures.
  (http://www.nps.gov/public_health/inter/info/factsheets/fs_noro_r&c.htm)
- Once the immediate spill area has the vomit contained, remove gross soil with shovel, dustpan, disposable towels or similar tools, and reapply EPA-registered disinfectant to the surface according to label instructions.
- Wipe the area clean with detergent and water followed by disinfection as above.
- Discard open, exposed food within a 25 foot radius of the vomit incident.
- All “heavy hand-contact” surfaces such as food preparation surfaces, self service utensil handles, faucets, faucet handles, tables, chairs, counters, door handles, push

plates, railings, elevator buttons, telephones, keyboards, vending machines, soap dispensers, restroom stall doors and latches, toilet seats and handles, and towel dispensers are important areas that require disinfection.

- To reduce the chance of airborne contamination, hard surface floors that are contaminated by vomit should not be buffed or vacuumed. Contaminated carpets should be cleaned and disinfected with a chemical disinfectant if possible, and then steam cleaned for a minimum of 5-minute contact time at a minimum temperature of 170° F.
- Place all contaminated solids or clean up materials in a separate bag marked biohazard. (preferably a red bag)
- Clean and disinfect any tools or other non-disposable items used in the clean up.
- Remove personal protective equipment and place them in the biohazard bag.
- Wrap and tie the biohazard bag and give it to the person in charge.
- Wash hands and face immediately using germicidal soap.

III. Recovery

Recovery involves the necessary steps for re-opening and returning to a normal operation and/or re-admission of employees to a food establishment. A food establishment that was ordered or otherwise required to cease operations may not re-open until the regulatory authority has granted authorization. Section 2-201.13 of the Food Code gives guidelines regarding procedures for removal, adjustment, or retention of exclusions and restrictions for employees sickened by noroviruses as well as Shigella spp., Hepatitis A, Salmonella typhi, or enterohemorrhagic or shiga toxin-producing E.coli.

Bioterrorism Prevention and Terrorist Threat Procedures:

I. Assessment (ALERT)

- ASSURE that the supplies and ingredients you use are from safe and secure sources. Use only known and approved vendors for services, incoming materials, etc. Encourage suppliers to practice food defense measures. Request only locked and/or sealed vehicles/containers/railcars. Supervise off-loading of incoming materials.
- LOOK after the security of the products and ingredients in your facility. Have a system for receiving, storing, and handling distressed, damaged, returned, and rework products that minimize the potential for being compromised. Track incoming materials and finished products. Store product labels in secure locations and destroy outdated or discarded product labels. Secure cleaning chemicals and pesticides. Limit access to restricted areas of the facility. Ensure public and private warehouses and shipping operations practice appropriate security measures.
- EMPLOYEES should have background checks before hire and vendors must show identification. Check names of all employees against **FBI BOLO** (**B**e **O**n the **L**ook **O**ut) list. Employees should wear identification badges such as uniforms, photo identification badges, nametags, etc. Limit access so staff enters only those areas necessary for their job function.
- REPORTS of products received and sold must be available, per the Public Health Security and Bioterrorism Preparedness Act of 2002. Make written records of every item returned to stores for refunds including person's state id number (such as Driver's License), address, telephone number and reason for returning the item. At least annually, perform random food defense inspections to evaluate the effectiveness of the security management system. Review vulnerabilities and revise plan according, keeping the results confidential.
- THREATS must be addressed through notification of appropriate regulatory authorities. Hold any product that you believe may have been affected. If a food establishment operator suspects that any meat, poultry or egg products have been subject to tampering, counterfeiting, or other malicious, criminal, or terrorist action, they should notify the appropriate regulatory authority and the USDA-FSIS 24 hour emergency number at 1-800-233-3935 or their local FSIS District Office listed at http://www.fsis.usda.gov/Contact_Us/Office_Locations_&Phone_Numbers/index.asp. For all other food products, contact the FDA 24 hour emergency number at 301-443-1240 (1-888-723-3366) or call their local FDA District Office. These are listed at: http://www.cfsan.fda.gov/~dms/district.html

II. Response

Recommended Actions for the Food Sector During Homeland Security Alerts at:

Level Blue (guarded):

- Be alert of suspicious activity and report it to proper authorities.
- Review stored disaster supplies and replace items that are outdated.
- Develop an emergency communication plan that includes all key employees.

- Establish an alternate meeting place away from business with the management team.
- Create relationships with local police and health officials and have those numbers readily available.

Level Yellow (elevated):

- ***Complete recommended actions at lower levels***
- Be alert of suspicious activity and report it to proper authorities.
- Utilize digital CCTV systems to cover food prep and display areas, dining areas, back rooms and docks, and parking lots. (Save surveillance video for a minimum of 60 days depending on format – tape or digital)
- Review and ensure disaster supply kit is stocked and ready. (Supply kits include, but are not limited to, emergency contact list, flashlights and batteries, supply of bottled water, first aid kit, battery operated radio, cigarette lighter, cell phone recharge cord, map, change of clothes, etc.). Replace items that are outdated.
- Check telephone numbers and e-mail addresses in your company emergency communication plan and update as needed.
- Review command structure to ensure that there's a knowledgeable person in charge in the event the PIC is unavailable.
- Eliminate common area clutter both inside and outside of establishments to not provide potential hiding areas.
- Relocate vendor racks, pallets, etc. away from buildings to prevent easier access to roof and HVAC systems.
- Secure all lockers, compressor, electric, generator, and storage areas to prevent unauthorized entry. Place company locks on all of these areas.
- Check all rest rooms, janitor closets, and other areas where packages could be concealed after the establishment doors are locked.
- Periodically review evacuation plans.
- Have staff develop alternative routes to/from work and practice them.
- Compare your company disaster plans with Homeland Security Guidelines.

Level Orange (high):

- ***Complete recommended actions at lower levels***
- Be alert of suspicious activity and report it to proper authorities.
- Review company disaster plan and policies on threats with PICs and back ups.
- Have a notification process in place to share information within company, throughout industry and with government partners.
- Ensure management teams are familiar with your emergency response guidelines.
- Ensure store/restaurant personnel or loss prevention staff communicate with local law enforcement and create a closer bond with police.
- Have truckers and suppliers exercise caution when traveling.
- Check identification badges for vendors and require them to sign in and out.
- Be aware of what trucks or abandoned vehicles are parked by buildings and stores or in underground parking lots.
- Keep car gas tank full and have some extra cash available.

Level Red (severe):

- ***Complete recommended actions at lower levels***
- Listen to radio/TV for current information/instructions
- Communicate to industry trade groups and government partners for additional information/instructions via telephone, cell phone, e-mail, instant messaging, etc.
- Implement company disaster recovery plan, if necessary.
- Determine status of work situation and inform associates of closure or pertinent information.
- Listen for any travel restrictions and be prepared to deploy essential personnel.
- Be prepared to shelter in place or evacuate if instructed to do so by local government authorities.
- If a need is announced, promote blood donation at designated blood collection centers.

(Source: Dept of Homeland Security, FMI, NJ Food Council, Pathmark Stores Inc.).

Biological Attack:

- Stop what you are doing.
- Do not taste, smell or try to analyze the suspicious substance.
- Leave the room and close the door, or section off the area to prevent others from entering.
- Wash your hands with soap and cool water for 60 seconds and then wash your face.
- Notify security office or local law enforcement.
- Remove clothing without pulling it over your head. If necessary, cut clothes to remove them. Place clothing in a plastic bag and tie shut. The clothing should be given to emergency responders for proper handling.
- When emergency personnel respond, they will provide guidance on decontamination.

Chemical Attack:

- Evacuate the affected area.
- If the chemical is inside the building, try to evacuate the building without passing through the contaminated area.
- If you cannot get out of the building without passing through the contaminated area, move away from the area and “shelter in place”.
- If your eyes are watering, your skin is tingling, you have trouble breathing, or you think you may have been exposed to a chemical:
  - Remove clothing without pulling it over your head. If necessary, cut clothes to remove them.
  - Look for a hose, fountain, or any other water source, and wash with soap. DO NOT SCRUB YOUR SKIN!
  - Request emergency medical attention at your location.
  - Place contaminated clothing in a plastic bag and tie shut. The clothing should be given to emergency responders for proper handling.

Radiological Attack: (dirty bombs or attacks on nuclear power plants that cause the release of radioactive material).
Until public health officials determine the extent of radiation contamination after a blast, best practices include:

- Shielding-If you have a thick shield between yourself and the radioactive materials more of the radiation will be absorbed, and you will be exposed to less.
- Distance-The farther away you are from the blast and fallout, the lower your exposure.
- Time-Minimizing the time spent exposed would also reduce your risk.

(Source USDA)

Suggested Protocol for Identifying and Handling Suspicious Letters/Packages:

- Some characteristics of suspicious letters/packages and foods include the following: excessive postage; handwritten or poorly written typed addresses; incorrect titles; title but no name; misspellings of common words; no return address, visual distractions such as damaged container, leakage, spillage, or unknown powder on package; marked with restrictive endorsements such as “personal” or “confidential”; and/or shows a city or state in the postmark that does not match the return address.
- Do not shake or empty the contents of the envelope or package.
- Notify the establishment management team, security, and the local FBI office.
- Put it in a plastic bag or other container to prevent leakage of the contents. If a bag is not available, cover the envelope or bag with anything available (clothing, paper, trash can, etc) and do not remove the covering. Clear the area.
- Leave the room and close the door or section off the area.
- Ask co-workers and others to leave and keep others from entering.
- Wash hands with soap and water to prevent spreading of any powder or other dangerous substance.
- Do not bring the envelope or package to an emergency department or doctor’s office.
- Report the incident to local police or other law enforcement officials.
- Make a list of all of the people in the room or area when the letter or package was recognized and provide it to law enforcement and public health officials for follow up investigations and advice.

(Source: US Postal Service/CDC/FMI).

III. Recovery

- For incidents involving a possible contamination such as unknown white powder, do not try to clean up the powder.
- Remove contaminated clothing as soon as possible without pulling it over your head. If necessary, cut clothes to remove them. Place clothing in a plastic bag and tie shut or in some other container that can be sealed. This clothing bag should be given to the emergency responders for proper handling.
- Shower with soap and water as soon as possible. DO NOT USE BLEACH OR OTHER DISINFECTANT ON YOUR SKIN!
- After a crime scene investigation and clearance by regulatory authorities, the environment in direct contact with the letter or package should be decontaminated with a solution of one part household bleach to 10 parts water. Personal affects may be decontaminated similarly.
  (Source: CDC, NJ Dept of Health and Senior Services/FMI).

IV. Recovery-Guidelines for Disposal of Intentionally Adulterated Food Products and Decontamination of Food Processing Facilities:

- Link to Guidelines:
  http://www.fsis.usda.gov/Food_Defense_&_Emergency_Response/index.asp
- Although response to any intentional contamination incident must be considered on a case-by-case basis, this document provides some guidance on disposal options for the contaminated product and decontamination actions for the facility.
- Depending on the nature of the incident, a great deal of interaction among regulatory agencies (federal, state, and local) might be required.
- Types of adulterants may include biological, chemical, or radiological materials not typically found in food. Disposition of these unusual agents may require specific actions that provide special protection for personnel and to limit the contamination of other environmental media.

FDA Food Code

Here is language from the 2005 FDA Food Code that addresses actions to be taken by the regulatory authority and the food establishment operators when an imminent health hazard occurs:

Imminent Health Hazard

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 unsanitary 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.*

8-404.12 Resumption of Operations.

If operations are discontinued as specified under § 8-404.11 or otherwise according to LAW, the PERMIT HOLDER shall obtain approval from the REGULATORY AUTHORITY before resuming operations.

Emergency Contact Information

Name	**Phone #**	**Emergency # Cell / Page**
Organization:		
Manager		
Regional Office		
Home Office		
Insurance Carrier		
Distribution		
Food Supplier		
Lawyer		
Water		
Sewer		
Electricity		
Gas		
Phone		
Cable		
Emergency Broadcast		
Police (911)		
Fire (911)		
Radio/TV station		

Plumber
Electrician
Well Driller
Water Utility Company
Licensed Water Hauler
Bottled Water
Commercial Ice
Dry Ice
Refrigerated Truck
Refrigerated
Warehouse
Portable Generator
Waste Hauler
Local Landfill
Septic Tank Pumper
Drain Cleaner
Cleaning Equipment Supplier
Janitorial Service
Fire Extinguisher Service
Bldg. Restoration Specialist

Security / Safety
Local Poison
Control Center
National Poison Control Center 1 800 441-8080
State Restaurant Association
FBI
State Health Department
State Department of Agriculture
Local Health Department
Centers for Disease Control 1 800 311 3435
USDA FSIS: 1 800.233.3935 (Food Product Emergencies)
USDA FSIS: 1 866.395.9701 (Office of Food Defense and Emergency Response) (for non-routine incidents)
USDA Meat and Poultry Hotline: 1 888.674.6854
FDA Information Hotline 1 888 723 3366
FDA 24 hour Emergency Hotline 1 301 443 1240
EPA Safe Drinking Water Hotline 1 800 426 4791

REFERENCES

ON-LINE RESOURCES

There are many excellent on-line resources available for both regulatory and industry to utilize. Most of the state websites have emergency guidance as well as some of the state restaurant associations. Check your respective state for emergency guidance* that may be applicable to your needs.

***It is important to note that the resources listed on this document are just a small sample of those that are available for both regulatory and industry. You may find other guidance that is more suitable for your organizational needs.**

US GOVERNMENT AND OTHER RESOURCES

Consult http://www.fsis.usda.gov/
US Department of Agriculture's Food Safety and Inspection Service for guidance on disaster response, and food safety during emergencies regarding meat, poultry and egg products

Consult http://www.fda.gov/
US Food and Drug Administration for guidance on disaster response in regards to all other food products and for science-based information on food safety for retail and food service industries.

Consult http://www.epa.gov
US Environmental Protection Agency for guidance on disaster response in regards to potable water supply, wastewater and soil erosion and contamination.

http://www.cfsan.fda.gov/

http://www.foodsafety.gov/~dms/retdisa2.html

http://www.neha.org/

http://www.fema.gov/

http://redcross.org/

http://www.cdc.gov/flu/pandemic/

http://www.usda.gov/birdflu

CDC's Business Pandemic Influenza Planning Checklist
(http://www.cdc.gov/flu/pandemic/pdf/businessChecklist.pdf)

STATE HEALTH DEPARTMENT RESOURCES

http://www.michigan.gov/mda/0,1607,7-125--105442--,00.html

Emergency Handbook for Food Managers from NACCHO:
For a hardcopy notebook, at Publications:
http://www.naccho.org/topics/environmental/foodsafety/documents/HandbkPDFEmerHB.pdf

For downloadable PDFs, at EQUIPh: http://www.naccho.org/EQUIPh/index.cfm

Bottled Water <http://www.mass.gov/dph/fpp/bottledwater>

Dairy <http://www.mass.gov/dph/fpp/dairy>

Foodborne Illness<http://www.mass.gov/dph/fpp/foodborneillness>

Food Processing <http://www.mass.gov/dph/fpp/foodprocessing>

Retail Food <http://www.mass.gov/dph/fpp/retail>

Seafood <http://www.mass.gov/dph/fpp/seafood>

http://www.oph.dhh.louisiana.gov/sanitarianservices/retailfood/docs/ORLEANS%20BOIL%20ADVISORY.pdf

Food and Water Safety

FEMA	
Food and Water in an Emergency	http://www.fema.gov/pdf/library/f&web.pdf
Emergency Food and Water Supplies	http://www.fema.gov/library/emfdwtr.shtm
Where Can I Get Water?	http://www.fema.gov/library/food.shtm
Helping Children Cope With Disaster	http://www.fema.gov/rrr/children.shtm
Food and Water in an Emergency	http://www.redcross.org/static/file_cont39_lang0_24.pdf
CDC	
What You Need To Know When The Power Goes Out	http://www.bt.cdc.gov/poweroutage/pdf/poweroutage.pdf
Public Health Issues Related to Summertime Blackouts	http://www.bt.cdc.gov/poweroutage/pdf/blackout.pdf
CDC Safe Water Program	http://www.cdc.gov/safewater/who_is.htm
Microbes in Sickness and in Health Brochure CDC Division of Bacterial and Mycotic Diseases	http://www.niaid.nih.gov/publications/microbes.htm
CDC Stopping Germs at Home, Work and School	http://www.cdc.gov/germstopper/home_work_school.htm
Hand Hygiene for Consumers Association for Professionals in Infection Control and Epidemiology	http://www.apic.org/AM/AMTemplate.cfm?Section=Brochures&Template=/CM/ContentDisplay.cfm&ContentFileID=298
Evaluating Your Risks How likely are you to catching an infectious disease? Mayo Clinic	http://mayoclinic.com/

CDC An Ounce of Prevention Keeps the Germs Away	http://www.cdc.gov/ncidod/op/index.htm
Hand Hygiene Guidelines CDC Media Relations	http://www.cdc.gov/od/oc/media/pressrel/fs021025.htm
For Healthcare Workers: Avoiding Infections at Work American Academy of Family Physician's	http://familydoctor.org/246.xml
DEQ Michigan Department of Environmental Quality	
Protecting Your Private Water Supply	http://www.deq.state.mi.us/documents/deq-wd-gws-wcu-protectprivatewatersupplyemergency.pdf
Michigan State University	
Testing of Private Wells	http://www.gem.msu.edu/pubs/msue/wq02p1.html
How to Conserve Water in Your Home and Yard	http://www.gem.msu.edu/pubs/msue/wq16p1.html
Canada – Ontario Ministry of Health	
Boil Water: Drinking Water Advisory	http://www.health.gov.on.ca/english/public/pub/watersafe/watersafe_boiled.html
Water Safety: If there is an Electrical Power Blackout	http://www.health.gov.on.ca/english/public/pub/watersafe/watersafe_power.html
Keeping Your Well Water Safe to Drink	http://www.health.gov.on.ca/english/public/pub/watersafe/watersafe_wellknow.html
EPA Environmental Protection Agency	
Sample Public Notices on Drinking Water	http://www.epa.gov/safewater/pws/pn/review.pdf
Frequent Questions: How Can I Test the Quality of My Private Drinking Water Supply?	http://www.epa.gov/safewater/privatewells/faq.html#q1
Protect Your Drinking Water For Life	http://www.epa.gov/safewater/publicoutreach/index.html
Local Drinking Water Information	http://www.epa.gov/safewater/dwinfo/index.html
Consider the Source: A pocket Guide to Protecting Your Drinking Water (52 pages)	http://www.epa.gov/safewater/protect/pdfs/swppocket.pdf
Drinking Water From Household Wells (24 pages)	http://www.epa.gov/safewater/privatewells/pdfs/household_wells.pdf
Water On Tap What You Need To Know (36 pages) English	http://www.epa.gov/safewater/wot/pdfs/book_waterontap_full.pdf
A Homeowners Guide to Septic Systems (19 pages)	http://www.epa.gov/npdes/pubs/homeowner_guide_long.pdf
Human Health: What Are Some Naturally Occurring Sources of Pollution in Drinking Water?	http://www.epa.gov/safewater/privatewells/health.html
EPA Drinking Water Kids' Stuff Series	
Water Q & A	http://www.epa.gov/safewater/kids/qanda.pdf
Water Facts of Life	http://www.epa.gov/safewater/kids/facts.pdf
Water Myths sand Realities	http://www.epa.gov/safewater/kids/myths.pdf
Water Treatment Cycle	http://www.epa.gov/safewater/kids/treat.html
Children and Drinking Water Standards (15 pages)	http://www.epa.gov/safewater/kids/child.pdf
Welcome to the Water Sourcebooks (Four Grade level books: k-2, 3-5, 6-8, 9-12)	http://www.epa.gov/safewater/kids/wsb/index.html
Food Safety Education for Children USDA	http://www.fsis.usda.gov/food_safety_education/for_kids_&_teens/index.asp

Background	
Physician Preparedness for Acts of Water Terrorism (Water Health Connection)	http://www.waterhealthconnection.org/bt/index.asp
Talking About Disaster: A Guide For Standard Messages	http://www.disastereducation.org/guide.html
WHO World Health Organization	
Food Safety and Foodborne Illness Fact Sheet WHO	http://www.who.int/mediacentre/factsheets/fs237/en/
Foodborne Diseases, Emerging WHO	http://www.who.int/mediacentre/factsheets/fs124/en/
U.S. Department of Agriculture	
Keeping Food Safe During an Emergency	http://www.fsis.usda.gov/Fact_Sheets/keeping_food_Safe_during_an_emergency/index.asp
Foodborne Illness: What Consumers Needs to Know	http://www.fsis.usda.gov/OA/pubs/FoodIllness.pdf
Food Safety and Security What Consumers Need to Know	http://www.fsis.usda.gov/Frame/FrameRedirect.asp?main=http://www.fsis.usda.gov/oa/topics/foodsec_cons.htm
Floodwaters and Food and Drinking Water Q&A	http://www.fsis.usda.gov/Help/FAQs_Power_Out/index.asp#1
Fire in Our Home and Food Safety	http://www.fsis.usda.gov/Help/FAQs_Power_Out/index.asp#3
Fire in Home and Food Safety	http://www.fsis.usda.gov/Help/FAQs_Power_Out/index.asp#4
Food Started to Thaw During Power Outage	http://www.fsis.usda.gov/Help/FAQs_Power_Out/index.asp#5
Should I Refreeze Food?	http://www.fsis.usda.gov/Help/FAQs_Power_Out/index.asp#6
Food Safety FAQ	http://www.fsis.usda.gov/Help/FAQs_Food_Safety/index.asp
Food Safety Facts	http://www.fsis.usda.gov/oa/pubs/facts_basics.pdf
Foodborne Illness: Peaks in Summer Why?	http://www.fsis.usda.gov/Fact_Sheets/Foodborne_Illness_Peaks_in_Summer/index.asp
Food Defense and Emergency Response	http://www.fsis.usda.gov/Food_Defense_&_Emergency_Response/index.asp
Security Guidelines for Food Processors, Transporters and Distributors; Disposal and Decontamination Guidelines	http://www.fsis.usda.gov/Food_Defense_&_Emergency_Response/Security_Guidelines/index.asp
Botulism	
CDC Facts About Botulism	http://www.bt.cdc.gov/agent/botulism/factsheet.asp
CDC Botulism Frequently Asked Questions Division of Bacterial and Mycotic Diseases	http://www.cdc.gov/ncidod/dbmd/diseaseinfo/botulism_g.htm
CDC Botulism Frequently Asked Questions Division of Bacterial and Mycotic Diseases **Spanish**	http://www.cdc.gov/ncidod/dbmd/diseaseinfo/botulism_g_sp.htm
Botulism NIAID Overview	http://www.niaid.nih.gov/publications/botulism.htm
Botulism Mayo Clinic Q & A	http://www.mayoclinic.com/invoke.cfm?id=AN00788
Bovine Spongiform Encephalopathy and Creutzfeldt – Jacob Disease	
CDC Fact Sheet New Variant Creutzfeldt – Jacob Disease	http://www.cdc.gov/ncidod/diseases/cjd/cjd_fact_sheet.htm
CDC Questions and Answers Bovine Spongiform Encephalopathy and Creutzfeldt – Jacob Disease	http://www.cdc.gov/ncidod/diseases/cjd/bse_cjd_qa.htm
Questions and Answers Regarding Creutzfeldt – Jacob Disease Infection-Control Practices	http://www.cdc.gov/ncidod/diseases/cjd/cjd_inf_ctrl_qa.htm

'Mad Cow Disease' Bovine Spongiform Encephalopathy	http://www.fsis.usda.gov/Fact_Sheets/Bovine_Spongiform_Encephalopathy_Mad_Cow_Disease/index.asp
Protection Against Mad Cow Disease	http://www.fsis.usda.gov/Fact_Sheets/FSIS_Further_Strengthens_Protections_Against_BSE/index.asp
Bovine Spongiform Encephalopathy WHO Fact Sheet	http://www.who.int/mediacentre/factsheets/fs113/en/
Brucellosis	
Brucellosis Fact Sheet St. Louis University	http://www.bioterrorism.slu.edu/bt/quick/brucellae01.PDF
Brucellosis Frequently Asked Questions CDC Division of Bacterial and Mycotic Diseases	http://www.cdc.gov/ncidod/dbmd/diseaseinfo/brucellosis_g.htm
Cholera	
Cholera Fact Sheet WHO	http://www.who.int/mediacentre/factsheets/fs107/en/
Cholera Fact Sheet St. Louis University	http://www.bioterrorism.slu.edu/bt/quick/cholera01.PDF
Cholera Frequently Asked Questions CDC Division of Bacterial and Mycotic Diseases	http://www.cdc.gov/ncidod/dbmd/diseaseinfo/cholera_g.htm
Cholera Frequently Asked Questions CDC Division of Bacterial and Mycotic Diseases **Spanish**	http://www.cdc.gov/ncidod/dbmd/diseaseinfo/cholera_g_span.htm
Cholera Frequently Asked Questions CDC Division of Bacterial and Mycotic Diseases **Portuguese**	http://www.cdc.gov/ncidod/dbmd/diseaseinfo/cholera_g_port.htm
Campylobacteriosis	
Campylobacteriosis Frequently Asked Questions CDC Division of Bacterial and Mycotic Diseases	http://www.cdc.gov/ncidod/dbmd/diseaseinfo/campylobacter_g.htm
Campylobacteriosis Frequently Asked Questions CDC Division of Bacterial and Mycotic Diseases **Spanish**	http://www.cdc.gov/ncidod/dbmd/diseaseinfo/campylobacter_g_sp.htm
Campylobacteriosis NIAID Overview	http://www.niaid.nih.gov/factsheets/foodbornedis.htm#d
Campylobacter Questions and Answers	http://www.fsis.usda.gov/Frame/FrameRedirect.asp?main=http://www.fsis.usda.gov/OA/background/campy_qa.htm
Campylobacter Frequently Asked Questions CDC Division of Bacterial and Mycotic Diseases	http://www.cdc.gov/ncidod/dbmd/diseaseinfo/campylobacter_g.htm
E. coli	
E coli CDC Division of Bacterial and Mycotic Diseases	http://www.cdc.gov/ncidod/dbmd/diseaseinfo/escherichiacoli_g.htm
E. coli NIAID Fact Sheet	http://www.niaid.nih.gov/factsheets/foodbornedis.htm#e
Glanders	
Glanders Frequently Asked Questions CDC Division of Bacterial and Mycotic Diseases	http://www.cdc.gov/ncidod/dbmd/diseaseinfo/glanders_g.htm
Glanders Fact Sheet St. Louis University	http://www.bioterrorism.slu.edu/bt/quick/brucellae01.PDF
Listeriosis	
Listeriosis and Food Safety Tips	http://www.fsis.usda.gov/OA/pubs/lmtips.pdf

Listeriosis and Pregnancy: What is Your Risk?	http://www.fsis.usda.gov/Frame/FrameRedirect.asp?main=http://www.fsis.usda.gov/oa/pubs/lm_tearsheet.htm
Protect our Baby and Yourself From Listeriosis	http://www.fsis.usda.gov/Fact_Sheets/Protect_Your_Baby/index.asp
Parasites and Foodborne Illness	http://www.fsis.usda.gov/Frame/FrameRedirect.asp?main=http://www.fsis.usda.gov/oa/pubs/parasite.htm
Listeriosis CDC Division of Bacterial and Mycotic Diseases	http://www.cdc.gov/ncidod/dbmd/diseaseinfo/listeriosis_g.htm
Salmonella	
USDA Salmonella Questions and Answers	http://www.fsis.usda.gov/Frame/FrameRedirect.asp?main=http://www.fsis.usda.gov/OA/background/bksalmon.htm
CDC Salmonella Questions and Answers **English**	http://www.cdc.gov/ncidod/dbmd/diseaseinfo/salmonellosis_g.htm
CDC Salmonella Questions and Answers **Spanish**	http://www.cdc.gov/ncidod/dbmd/diseaseinfo/salment_g.htm
CDC Salmonella Infection and Animals	http://www.cdc.gov/healthypets/diseases/salmonellosis.htm
Salmonella CDC Division of Bacterial and Mycotic Diseases	http://www.fsis.usda.gov/Frame/FrameRedirect.asp?main=http://www.fsis.usda.gov/oa/pubs/parasite.htm
Salmonella NIAID Fact Sheet	http://www.niaid.nih.gov/factsheets/foodbornedis.htm#f
Shigellosis	
Shigellosis Frequently Asked Questions CDC Division of Bacterial and Mycotic Diseases	http://www.cdc.gov/ncidod/dbmd/diseaseinfo/shigellosis_g.htm
Shigellosis Frequently Asked Questions CDC Division of Bacterial and Mycotic Diseases **Spanish**	http://www.cdc.gov/ncidod/dbmd/diseaseinfo/shigellosis_g_sp.htm
Shigellosis NIAID Overview	http://www.niaid.nih.gov/factsheets/foodbornedis.htm#g

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