

# Food Safety During Emergencies



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# Food Safety Guidelines During Emergencies

- <https://www.fda.gov/Food/RecallsOutbreaksEmergencies/Emergencies/ucm112713.htm>
- <https://www.fda.gov/Food/RecallsOutbreaksEmergencies/Emergencies/ucm077023.htm>
- <https://www.foodsafety.gov/keep/emergency/index.html>

# FDA Food Safety Video

<https://www.youtube.com/watch?v=GkFqAbqO38Q>

# Emergencies

- Natural Disasters- Hurricane, Tornado, Flood, Fire, Earthquake, Land Slide, Power Outages
- Man-Made Emergencies- Poisoning, Contamination, Terrorism, Power Outages
- Medical Emergencies- Pandemics, Illnesses, Outbreaks, Poisonings
- Food Emergencies- Recalls, Contamination, Outbreaks

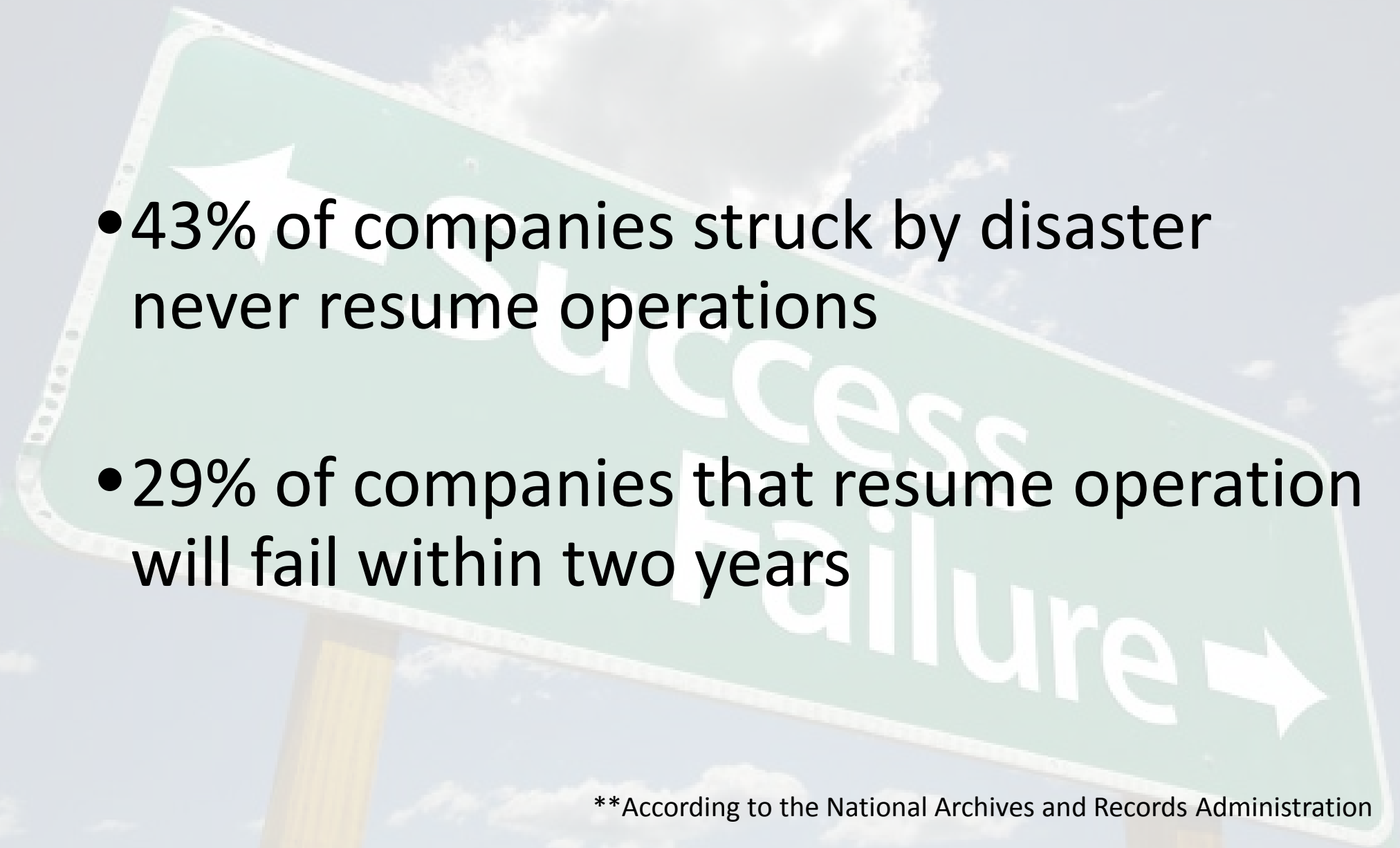


**Preparedness**

**Response**

**Recovery**

**Mitigation**

- 
- 43% of companies struck by disaster never resume operations
  - 29% of companies that resume operation will fail within two years

\*\*According to the National Archives and Records Administration

# Personal Preparedness

A stylized illustration of a family preparing for an emergency. A man in a green shirt is on the left, a woman in a pink shirt is on the right, and a child in a blue shirt is in the center. They are surrounded by various supplies: a large brown bag, a red box labeled 'MILK', a yellow box labeled 'CORN', a white box labeled 'WATER', a blue box labeled 'CRACKERS', and a white cooler. The background is a simple house with a red roof and a yellow chimney.

- Ensuring your own personal safety through:
  - Contingency Planning
  - Food Safety Awareness
  - Alternate Power Supplies
  - Alternate Water Supplies
  - Shelf-Stable Food Supplies

# Disasters

- Disasters Have Many Consequences:
  - Structural Damage
  - Power Outage
  - Pests/Nuisance (discarded food)
  - Famine
  - Injury and illness
  - Contamination- Surface and food
  - Psychological
  - Employee/Management Shortages
  - Contaminated Water
  - Damaged/Contaminated Food





# Partners During Disasters

- Food Suppliers
- Health Department
- Emergency Management
- Refuse Haulers
- Septage Haulers
- Generator Suppliers
- Water Suppliers
- Ice/Dry Ice Suppliers
- Alternate Refrigeration Providers (refrigerated trucks)

# Power Outages

- Average power outage is usually four hours, but could last for days to weeks
- No Refrigeration, no ventilation, no hot water, no running water, septage issues, compactor issues, no lighting
- Consider alternatives: Generator, refrigerated trucks, water tankers, standard dumpster, ice/dry ice
- Emergency Menus
- Suppliers/Partners
- Employee Training

# Power Outages- Refrigeration

- Record food temperatures every 2 hours
- Keep refrigerator doors closed
- Use of dry ice and ice
- Do not put hot food in refrigerator
- Refrigerated foods greater than 41F for greater than 4 hours (or if time out of temperature is unknown), must be discarded
- Refrigerated foods greater than 41F for less than 4 hours must be immediately cooled to 41F or less
- **MAXIMUM CUMULATIVE TIME OF OUT TEMPERATURE FOR PRODUCTS IS 4 HOURS** (i.e. products exceeding temperature for 3 hours, must be cooled to 41F or less within 1 hour)

# Power Outages- Equipment

- Do not cook if adequate ventilation is not provided (air quality, CO)
- Do not prepare food if adequate lighting is not provided (safety)
- Do not use hot holding equipment that is not functional
- Alternate heating of water
- Discontinue use of equipment that requires ware washing- consider single use articles
- Do not overfill/fill compactors that are not functional

# Recovery

- Discard of food items
  - Consider nuisance and pest issues (food must be denatured)
  - Special haulers/disposal for alcohol and chemicals
  - Check product temperatures immediately when power is restored and determine which products must be discarded
- Clean and sanitize all surfaces, including refrigeration, prior to use
- Check refrigeration temperatures prior to stocking the unit with new food
- Reset any circuit breakers
- Clean and sanitize refrigerators

# Water Supply Interruptions

- Single Use Article Inventory
- Bottled Water
- Water Tanker (alternate water source)
- Disposable Gloves
- Hand Sanitizer Use (secondary to hand washing)

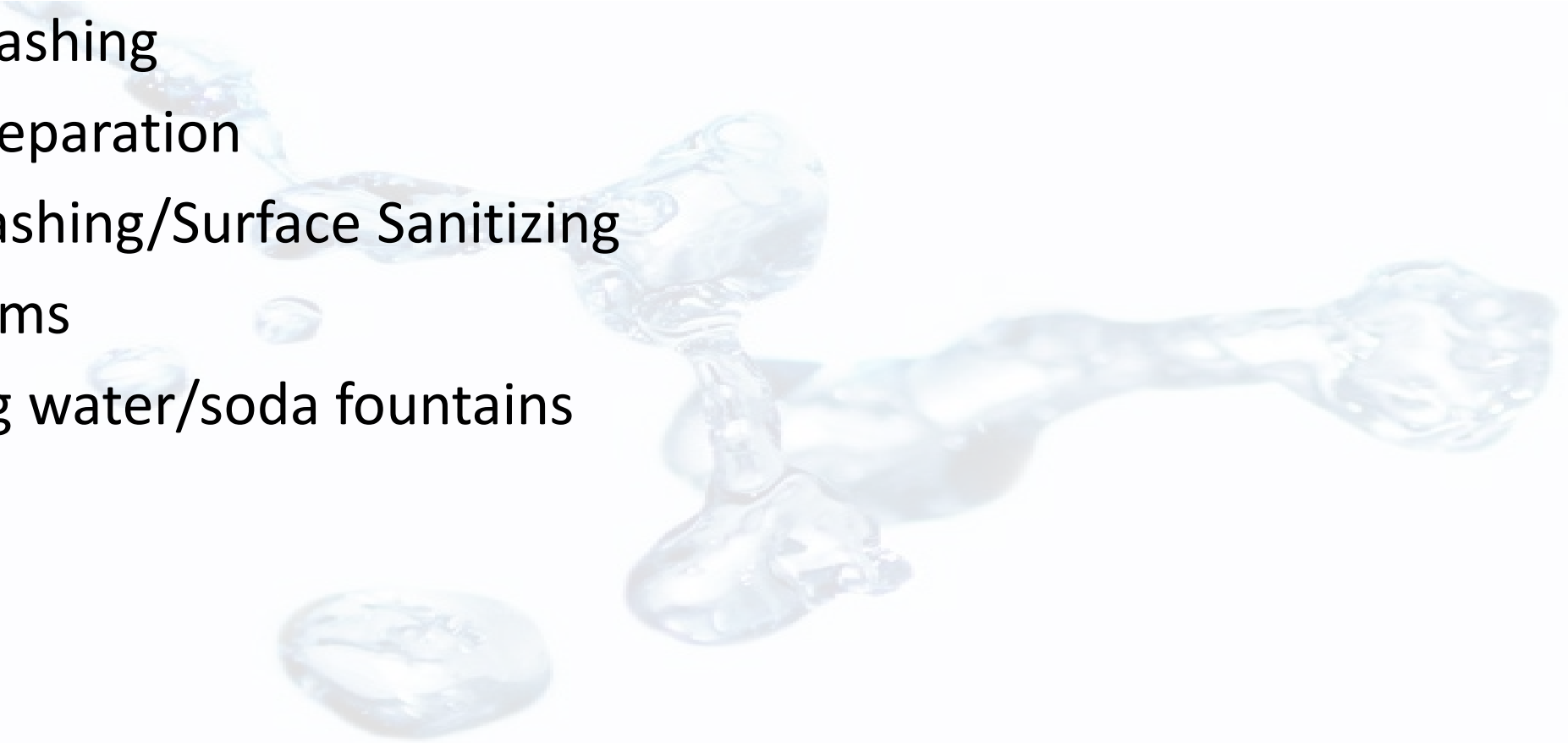
# Water Supply Interruptions

A decorative background featuring a dynamic splash of water droplets and streams, rendered in a light blue and white color palette, creating a sense of movement and freshness.

- Note date and time of water loss
- Assess operations impacted
- Notify regulatory authority
- Close or implement interim actions recommended by the regulatory authority
- If regulatory authority cannot be contacted, discontinue operations immediately

# Impacted Operations

- Hand washing
- Food preparation
- Warewashing/Surface Sanitizing
- Restrooms
- Drinking water/soda fountains
- Ice





A background image showing a dynamic splash of water with several large, clear droplets and a misty spray, set against a white background.

# Recovery

- Flush pipes/fixtures for at least 5 minutes
- Clean and sanitize equipment lines
- Run water softeners through regeneration cycle
- Change filters
- Flush beverage units and drinking fountains
- Clean and sanitize ice machines and discard first run of ice production
- Ensure hot water heaters are functional and are flushed

# Water Supply Contamination

A background image showing water splashing and droplets, rendered in a light blue, semi-transparent style. The water appears to be falling from the top left towards the bottom right, creating a sense of motion and freshness.

- Note date and time of water contamination
- Assess the operations impacted
- Do not use the water for food preparation, warewashing, hand washing, and ice production
- Contact the regulatory authority for further actions
- Remain closed until regulatory authority approves operation
- Use of bottled water and alternate water sources

# Recovery

- Flush all water lines (chlorinate if required)
- Clean and sanitize all beverage and ice production units
- Clean and sanitize all surfaces and dishware cleansed by the contaminated water
- Drain hot water heater
- Discard contaminated ice and the first run of the new ice
- Flush drinking fountains
- Drain water reservoirs (if applicable)

# Sewage Back Ups

- Develop a list of equipment requiring drainage
- Establish an action plan when drainage can no longer occur to prevent overflow
- Consider restroom facilities
- Consider contract with septage hauler and plumber
- Develop a clean-up plan
- Notify regulatory authority of sewage back up and remain closed until the regulatory authority approves operation
- Removed impacted equipment from service immediately
- Barricade impacted areas

# Recovery

- Do not re-open without approval of the regulatory authority
- Contact service company to remove obstruction or pump tanks
- Replace any damaged plumbing
- Clean and sanitize all surfaces
- Implement PPE (goggles, gloves, rubber boots, protective clothing) for clean up
- Do not cross contaminate areas (do not permit employees to walk from impacted area to a “clean” area)
- Follow OSHA rules
- Adequately wash hands
- Discard impacted utensils, food, single use articles
- Launder or discard mop heads and linens

The background of the slide features a stylized, glowing image of flames in shades of yellow and orange, set against a light blue gradient. The flames are positioned on the left side of the slide, extending upwards and outwards.

# Fires

- Develop a plan for what to do in case of a fire
- Maintain ANSUL systems, fire extinguishers, and ventilation hood cleanliness
- Keep a list of essential telephone numbers: emergency response, Health Department (during and after hours), Fire Marshal's Office, Utility Companies (gas, electric)
- Notify regulatory authority (Health Department and Building Office)
- Which products can I keep?
- What needs to be discarded?

# Consider the Type of Fire



- Major Fire: Evacuate guests/employees and call fire department, close facility, notify Health Department
- Minor Fire:
  - Even minor fire events require Health Department approval prior resuming operations at a facility
  - Follow proper emergency actions
  - Follow recovery procedures for damaged products
  - Conduct necessary repairs

# Recovery- Food

- Food, utensils, single use articles that are damaged by chemicals or heat can generally not be salvaged
- Alcoholic beverage discard requires special disposal
- Plastic and paper wrappers are permeable, so the product will be damaged by smoke, fire, and chemicals
- Dairy products cannot be salvaged
- Glass containers with metal screw tops can generally not be reconditioned
- May be able to salvage food in completely enclosed refrigerators with no interior intakes
- Products in cans that are not damaged by heat may be reconditioned with oversight and approval from the regulatory authority



# Recovery- Facility

- Clean and sanitize all surfaces
- Repair structural damage
- Clean hood systems
- Service Ansul system/fire extinguishers
- Occupancy not permitted unless approved by the regulatory authority having jurisdiction

# Floods

- Flood water may contain human waste, dead animals, and other contaminants
- Determine what has been water damaged (food, equipment, structure)
- Keep food products and food equipment elevated
- Determine partners and resources
- Has the drinking water supply been impacted?
- What can I keep?
- What must I discard?

# Recovery- Food

- Items contaminated by flood water that cannot be salvaged:
  - Alcoholic beverages
  - Exposed fresh meat, poultry, eggs, bulk foods, other exposed foods
  - Cardboard boxes and items in paper wrappers
  - Food in glass jars
  - Foods in crown-capped bottles/containers, pull top tabs, corks, screw caps
  - Open containers of food
  - Dented, leaking, rusted, bulging cans
  - Cans that have physically been relocated by flood water
  - Cans without original labels

# Recovery

- Notify regulatory authorities
- Consider if you will attempt to recondition any products (must have regulatory approval)
- Consider PPE for employees
- Sort items to be salvage from those to be discarded
- Clean and sanitize all surfaces
- Removed damaged surfaces and equipment
- Service equipment
- Disinfect floors and surfaces using at least 500ppm of chlorine
- Address structural deficiencies
- Discard single use articles that were damaged by flood water
- Launder mop heads and linens

# Contingent Operations

- Contact Health Department First
- Consider Situation
  - Structural Issues
  - Environmental Issues
  - Safety Issues
- Mobile Food Service Facilities
- May be able to operate under temporary event guidelines

# Recovery and Mitigation

- After the event, how will you resume operations?
- What are the priorities to be addressed?
- Discarding food
- Receiving food
- Testing operation of equipment
- Insurance and recording losses

# Food Tampering



- Credible threats of food tampering must be taken seriously
  - Notify law enforcement officials
  - Notify Health Department
- Record the name of the person, date/time, what was observed, the content of the threat, and the products impacted
- If unsure if tampering is occurred, consider closing the facility
- Food sampling
- Site investigation
- If you see something, say something

# Outbreaks

- Prevention

- Employee Illness Policies (12% of food service workers come to work sick twice per year with diarrhea/vomiting)
- Hand washing and Glove Use
- Proper Cooking, Cooling, Cold Holding, Preparation, Hot Holding, Thawing, and Reheating Practices
- Know what to do if an employee reports ill and what illness/symptoms require no contact with food/food related products
  - Send Employee Home
  - Discard Food Prepared by Employee
  - Record name of employee, date and time of occurrence, symptoms, any food served to customers



# Outbreaks

- Partners During Investigations
  - Health Department: Nursing, Environmental Health
  - Maryland State DHMH- Food Division
  - Maryland State DHMH- Epidemiology
  - Federal Partners (if across jurisdictional boundaries)
- Health Department Investigates
- Food Sampling and Emesis/Stool Sampling (DHMH and/or CDC testing)
- Employee and Management Questionnaires
- Site Inspection
- Summary Suspensions of Licenses (if necessary)
- Final Report/Recommendations

# Remember

- Know Your Emergency Contacts
  - Emergency Management
  - Emergency Operations Center
  - Health Department
- If You See Something, Say Something!
- You Are Not Alone. Knowledge and Resources Are Available.
- Your Success at Recovering from Emergency Events is Dependent Upon Your Preparedness!

# Disasters Can Happen, Don't Be Unprepared

- [The victims of the tornado in Joplin:](#)
- [https://www.youtube.com/watch?v=o943IG\\_fehc](https://www.youtube.com/watch?v=o943IG_fehc)

# Helpful Links Again

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