



Disaster Preparedness for Food Businesses

EMERGENCY ACTION PLANS FOR FOOD BUSINESSES

Mississippi is home to many local food and agriculture-based businesses. Because the agricultural and food sectors can be subject to a variety of disasters, natural or manmade, disaster planning and preparedness is important. The goal of the Disaster Preparedness for Food Businesses program is to help producers and processors identify and reduce potential risks associated with operating agriculture-based food businesses.

In the event of a disaster, an emergency action plan must be used to mitigate the damage and resume operations. This includes plans for disruption to electrical or water service, boil-water advisories, fires, and floods. It is also important to develop post-event action plans. The goal of this publication is to provide information to help Mississippi producers and food business owners mitigate risks and minimize losses so they can recover after a disaster and return to normal operations.

EMERGENCY AND DISASTER INCIDENTS

The Food and Drug Administration (FDA) defines “emergency” as an unforeseen combination of circumstances that calls for immediate actions. For example, during a disaster, access to clean, potable water may be disrupted. In addition, power loss, product contamination, property loss, and physical injuries may occur.

Preparing for an emergency is as important as controlling for identified food safety and operational hazards (e.g., Hazard Analysis Critical Control Point and Hazard Analysis and Risk-Based Preventive Controls). Planning reduces the number of decisions you need to make in the moment and can enable a timely, coordinated response. Further, planning and preparation can reduce confusion and potential disagreement as well as provide agreed-upon structures, employee roles, and responsibilities.

Templates, decision trees, and other tools for disaster preparedness assistance are helpful when planning for emergencies. The goal of disaster and emergency action planning is to minimize adverse health impacts and disruptions to operations and trade. Reflecting on your operation, if a disaster strikes, do you and your employees know the emergency procedures?

DEVELOPING AN EMERGENCY ACTION PLAN

Preliminary Steps

- Obtain high-level support (if applicable).
- Identify key partners (federal and state regulatory authorities, local emergency-response departments).
- Establish a planning group. Consider including representatives from multiple departments (if applicable; e.g., quality assurance, maintenance, research and development, production, administrative, human resources, safety, shipping, local emergency-response personnel).
 - ◊ This group will lead the plan development and preparation processes and consult with partners. They will collect critical information, develop plans, seek plan approval, evaluate the plan periodically, and ensure that a tracking or monitoring mechanism is in place to update the plan.

Key Elements

- Document essential background information.
 - ◊ Scope, purpose, and definitions
 - ◊ Regulation references
 - ◊ Operation and products
 - ◊ References and examples
 - ◊ Contact information

Multiagency Coordination Group

- Identify state and federal agencies, local emergency-response departments, and local government agencies.
 - ◊ Roles and responsibilities of entities



Incident Identification, Preparation, and Management

- Identify incident criteria for plan activation (e.g., watches, warnings).
- Identify reliable information sources (e.g., mass media, regulatory authorities).
- Identify monitoring mechanisms and testing laboratories.
- Identify documentation and recordkeeping needs.
- Identify control, direction, and coordination needs.
 - ◊ Chain of command/leadership, primary crisis manager, second in command, who will declare all clear
 - ◊ Identify employee tasks and train employees
- Determine flow of information.
- Identify essential equipment needed to keep the business open (e.g., machinery, computers, custom parts, essential equipment).
- For facilities, buildings, and plants, locate and make available building layouts and site maps showing critical utilities, cut-off valves, and clearly marked emergency routes. Provide copies to local emergency-response groups.
- Ensure that copies of plans, contacts, building information, and other critical information is available and accessible in multiple forms at multiple locations.
- Ensure supply-chain management and traceability.
 - ◊ Identify and list suppliers, shippers, resources, and other businesses that you interact with daily.
 - ◊ Develop professional relationships with more than one company in case your supplier cannot provide a product.
 - ◊ Create a contact list for existing critical business contractors and others you plan to use in an emergency.
- Designate meeting places, information centers, and second in command. List contact information for buyers, suppliers, and employees.

Communication

- Document strategies for communication and information dissemination.
- Identify information distribution channels.
- Document contact information for media outlets.
- Develop communication models and templates (what to communicate).
- Designate a spokesperson.

For more information, see MSU Extension Publication 3498 *Preparing to Respond: Four Steps to Developing a Crisis Communication Plan*.

Post-incident Review and Evaluation

- Develop a method for evaluating and reviewing events/activities.
 - ◊ Strengths and weaknesses of plan and actions
 - ◊ Response activities
 - ◊ Communication methods and effectiveness
 - ◊ Regulatory procedures associated with food safety, implicated foods, testing services, and reporting capacity
 - ◊ Evaluation of production and distribution of implicated foods (if applicable)
 - ◊ Effectiveness of product withdrawal
- Evaluate or withdraw product.
- Review plan, share corrective actions, and update plan.

Other Considerations

- Collaborate with neighboring businesses and building owners to avoid confusion and congestion during a disaster.
- Plan with suppliers, shippers, and others in your operation network.
- Share your plans and encourage other businesses to develop their own continuity planning.

- Create and test shelter and evacuation plans.
 - ◊ Does your business need a shelter for supplies and space for all employees? Designate an employee to be in charge of each room/area to ensure safety and accountability.
 - ◊ Test the emergency shelter plan and emergency evacuation plan.
- Recordkeeping is important. Keep multiple copies of important records in multiple locations. Store a set on-site in a waterproof, fireproof portable container and a set off-site (e.g., back up documents to a cloud/internet service and/or store hard copies of materials at a secure, off-site location). Designate an employee to oversee recordkeeping and data storage.
- Update employee emergency contact information annually.

ADVERSE EVENTS AND INCIDENTS

Natural and manmade disasters can include severe weather (e.g., hurricanes, tornadoes, derechos), earthquakes, floods, fires, and intentional contamination (e.g., food defense). Disruption of electrical service is the most common issue during adverse events, so we will use loss of electrical service as an example. For more details and checklists for preparing for a variety of adverse events and addressing each event in different operations, see the resources and references section.

ACTIONS DURING AN ADVERSE EVENT

During an adverse event, designated managers (e.g., food safety managers, production managers) must take specific actions. The designated manager must:

- Note the date and time of the event.
- Assess the affected operations.
- Immediately report the event to the regulatory authorities.
 - ◊ It is very important to work and communicate with your regulatory authorities (e.g., U.S. Department of Agriculture, U.S. Food and Drug Administration, Mississippi State Department of Health, Mississippi Department of Marine Resources, and/or Mississippi Department of Agriculture and Commerce).
- Immediately discontinue operations if safe operations cannot be maintained using approved alternative procedures.
- Follow appropriate emergency procedures or remain closed until granted approval by regulatory authorities to reopen.

ASSESS OPERATIONS AND PRODUCT DISPOSITION

In the event of an adverse event and/or emergency, you must assess multiple factors, including but not limited to complexity and scope of food processes and/or operations:

- Onset and duration of the emergency event.
- Impact on other critical infrastructure and services.
- Availability of alternative procedures that can be used to meet the requirements of the regulatory authorities (e.g., Mississippi Food Code, FDA Retail Food Code).

Example: Loss of Electrical Service

The average electrical power outage lasts 4 hours, but they can last multiple days or weeks. Business owners should consider alternative, reliable, and safe options for supplying electrical service. If your emergency plan includes using a generator, make sure the generator is capable of operating critical equipment (e.g., cooler/freezer units, pumps, safety lighting, water heaters). Additionally, train employees to use the equipment.

If products and ingredients are perishable, access to a refrigerated truck or outside warehouse for product storage during an emergency is an important option to consider. Also consider ice and dry ice for emergency cold storage. Will you be able to get ice when it is in high demand? Remember that it is not safe to use dry ice in enclosed spaces because it releases carbon dioxide in the environment. Additionally, employees handling dry ice must wear appropriate personal protective equipment (PPE).

Technology is an important component of preparedness planning. A technology plan should include how you will overcome the loss of heating, air conditioning, security systems, computers, lighting, and other critical systems in the event of an electrical outage. Keep a hard copy of contact information for utility companies and critical suppliers (e.g., waste disposal, ice, transportation, refrigerated truck, food warehouse, septic tank, regulatory authorities, emergency authorities, broadcast station frequency) in a safe place.

In addition, determine communication pathways between employees and external partners. Keep an updated employee contact list and employee emergency contact list accessible in all circumstances. Also consider communication and data transfer methods that are usable in emergencies and easily chargeable (e.g., solar, car charger, cell and/or satellite services, mass emails, texts, computer, fax). Develop and evaluate additional contingency plans to address and overcome obstacles.

RESOURCES AND REFERENCES

- Association of Food and Drug Officials (AFDO). Food Emergency Regulator Pocket Guide, 3rd Edition. <http://www.afdo.org/resources/Documents/Committee%20Reports%202016-2017/Food%20Emergency%20Pocket%20Guide%20-%20Final.pdf>
- Conference for Food Protection. 2014. Emergency Action Plan for Retail Food Establishments, 2nd Edition. <http://www.foodprotect.org/media/guide/Emergency%20Action%20Plan%20for%20Retail%20food%20Est.pdf>
- Extension Disaster Education Network (EDEN). <https://extensiondisaster.net/>
- Food and Agriculture Organization of the United Nations (FAO). Food Safety Emergency Response Planning. http://www.fao.org/fileadmin/templates/rap/files/meetings/2013/130617_7.1.pdf
- National Association of State Departments of Agriculture (NASDA). 2011. Food Emergency Response Plan Template. https://www.fsis.usda.gov/wps/wcm/connect/dffa9797-79bf-4ed5-991c-54f76fd7943d/NASDA_FERP_v4.pdf?MOD=AJPERES
- Penn State. ReadyAG© Disaster and Defense Preparedness for Production Agriculture. Includes commodity worksheets for cattle, crops, dairy, produce, poultry, and swine. https://extension.psu.edu/downloadable/download/sample/sample_id/2156/
- U.S. Food and Drug Administration (FDA). Food Defense and Emergency Response for Retail Food. <https://www.fda.gov/food/retail-food-protection/food-defense-emergency-response-retail-food>
- U.S. Department of Agriculture (USDA). Reference Guide – USDA Disaster Resources for Farmers, Ranchers, and Communities. <https://www.usda.gov/topics/disaster/reference-guide-usda-disaster-resources-farmers-ranchers-and-communities>
- U.S. Department of Agriculture (USDA). Disaster Resource Center. <https://www.usda.gov/topics/disaster>
- U.S. Department of Agriculture (USDA). Disaster Assistance Discovery Tools. <https://www.farmers.gov/recover/disaster-assistance-tool#step-1> and <https://www.farmers.gov/recover>

MSU EXTENSION PUBLICATIONS

- P3497 *Disaster Preparedness for Food Businesses: An Overview*. <http://extension.msstate.edu/publications/disaster-preparedness-for-food-businesses-overview>
- P3498 *Preparing to Respond: Four Steps to Developing a Crisis Communication Plan*. <http://extension.msstate.edu/publications/preparing-respond-four-steps-developing-crisis-communication-plan>
- P3542 *Developing a Food Recall Plan*. <http://extension.msstate.edu/publications/developing-food-recall-plan>
- P3546 *Financial and Risk Management Considerations for Food Businesses*. <http://extension.msstate.edu/publications/financial-and-risk-management-considerations-for-food-businesses>

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