

Retail Food Establishments Emergency Recovery: Power Outages

Regulation 61-25: Retail Food Establishments



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Severe weather or other unexpected events may cause a loss of power that could directly affect the operation of a retail food establishment. Advanced planning and quick action may limit some of the impact associated with a power outage. The goal is to keep cold foods at 41°F or less, and hot foods at 135°F or above for as long as possible.

When the Power goes Out:

- Note the date and time the power outage begins.
- Immediately relocate products from cold cases that cannot maintain safe temperatures to walk-in coolers, freezers, or refrigerated trucks.
- Use insulated covers, cardboard, plastic, or an equivalent to retain temperatures in open refrigerated, freezer, and heated cases.
- Do not put hot food into refrigeration equipment. Cool with an alternative method, such as an ice bath, prior to refrigeration.
- Keep refrigeration equipment closed as much as possible.
- As soon as the power goes out, begin monitoring and recording equipment and [Time/Temperature Control for Safety \(TCS\) Food](#) temperatures. TCS foods without proper documentation of time and temperature cannot be considered safe and must be discarded.
- An appliance thermometer should be placed inside all refrigeration units being used for food storage during the power outage.
- Discard TCS foods that were in the cooking or re-heating process but did not reach a safe final temperature.

Cold Holding of Time/Temperature Control for Safety (TCS) Foods:

If a facility intends to use [Time as Public Health Control \(TPHC\)](#) for managing cold TCS foods during a power outage, there must be a plan, written in advance, maintained at the facility available to the Department upon request.

Monitoring the temperature of cold TCS foods should be part of the written emergency plan.

Two ways to monitor time:

- “Start the clock” based on the time the power went out, or
- “Start the clock” based on when the food reaches 41°F, provided you have been checking the food temperature in accordance with your written plan.

Hot Holding of Foods:

If the time when the power outage began was noted, the following procedures may be used:

- If power returns within two hours, rapidly reheat food to 165°F within an additional two hours.
- If power does not return within two hours, any food that is below 135°F must be discarded within four hours from the time of the power outage. ([TPHC](#))
- Use an alternate heat source such as “canned or propane heat” and monitor temperatures hourly to ensure product remains 135°F or above.

Food Preparation:

All safe food practices must be in place to continue food preparation during a power outage, including:

- Must be able to maintain safe food temperatures.
- Normal water pressure and minimum hot water temperatures must be available to wash hands and properly clean utensils and equipment.
- Enough light must be available for employees to safely prepare food.

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Dishwashing:

- Use the three-compartment sink if hot water is available or if water can be heated to be used in the sink; or
- Discontinue operations that generate soiled utensils/kitchenware if they cannot be properly washed, rinsed, and sanitized; or
- Use single service tableware.

When the Power Comes Back On:

Conditions in the retail food establishment should be reviewed before resuming food preparation.

- Using a probe thermometer, check internal temperatures of hot and cold TCS foods that were not monitored using **TPHC**. Discard any product that was not maintained at a safe temperature during the outage.
- TCS foods without documentation of time and temperature cannot be considered safe and must be discarded.
- Check refrigeration and other equipment to make sure that they are operating properly.
- Ensure water is under pressure for handwashing and warewashing. Hot water must meet minimum required temperatures.
- **Local DHEC office** and/or your insurance company may request that the RFE document the type and amount of food being discarded/disposed.

Alternative Resources:

Ice or frozen gel packs: Consider storing frozen gel packs on-site to use during short term emergencies. Procedures for using ice and/or gel packs should include how to prevent cross-contamination of food.

Generators: Determine which equipment will be operated by a generator(s). An on-site generator may not have the capacity to operate critical equipment such as refrigerators and freezers. Consider additional generators for maintaining refrigeration, including portable generators that can be transported to the facility during an emergency.

Manufacturer's instructions for installation and operation should be carefully followed. Many portable generators use liquid fuels that could be dangerous under certain conditions.

- A refueling plan should be in place for generators during long term power outages.
- Make certain that individuals are trained to safely operate the generator.

Refrigerated trucks: Refrigerated trailers and trucks with insulated storage containers may be delivered to you in an emergency. Issues to consider include the time it will take for a trailer or truck to be delivered, damage to roads and infrastructure, source of fuel to maintain truck refrigeration systems, and secure storage of foods.

Dry ice: If dry ice is used, pack TCS food tightly together and place dry ice above foods to allow the cold CO₂ gas to sink and fall over the food items. Precautions, such as wearing insulated gloves, must be taken to avoid burns when handling dry ice. Do not place dry ice into a sealed room, cooler, or container without a means for the gas to escape. Dry ice in a sealed space can be dangerous.



Please see [Regulation 61-25](#), the [Emergency Action Plan](#), and the [Emergency & Recovery web page](#) or contact your [local DHEC office](#) for additional information.