

Retail Food Establishments Emergency Recovery: Power Outages

Regulation 61-25: Retail Food Establishments



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Power outages can be costly in the restaurant business. Planning in advance and quick action can limit some of the business impacts associated with power outages and emergencies. Quickly controlling temperature is key. In the event of a power outage, an evaluation will need to be made to determine if foods have remained in the safe zone and whether or not cooking operations can safely continue. The safe zone is less than or equal to 41°F and greater than or equal to 135°F.



All safe cooking practices must be in place for cooking operations to continue during an outage: temperature controls, proper food handling, and proper means of equipment cleaning.

Refrigeration — Emergency Procedures:

1. Note the date and time the power outage begins.
2. Immediately relocate product in cases that cannot maintain safe temperatures to walk-in coolers, freezers, or refrigerated trucks.
3. As soon as the power goes out, begin monitoring and recording equipment and Time/Temperature Control for Safety Food (TCS) temperatures.
4. Use insulated covers, cardboard, plastic, or an equivalent to retain cold air in open retail cases without doors.
5. Do not put hot food into refrigeration equipment. Cool with an alternative method, such as an ice bath, prior to refrigeration.
6. Discard any product that was not maintained at a safe temperature during the outage.

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

The proper cold holding temperature for TCS foods is 41°F or below.

If a facility intends to use Time as Public Health Control for managing TCS foods during a power outage, there must be a plan, written in advance, maintained at the facility and available to DHEC upon request.

Monitoring the temperature of cold TCS foods is required to be part of the written emergency plan.

Two ways to monitor time:

1. “Start the clock” based on the time when the power went out, or
2. “Start the clock” based on when the food reaches 41°F (5°C), provided you have been checking the food temperature in accordance with your written plan.



TCS foods without documentation of time and temperature cannot be considered safe and must be discarded.

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Hot Food Holding:

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 the time the food is between the temperatures of 41°F and 135°F exceeds two hours, discard.
- If power does not return within two hours, food must be discarded within four hours from the time of the power outage (unless it is kept above 135°F).
- Use an alternate heat source such as “canned or propane heat” and monitor temperatures hourly to ensure product remains above 135°F.
- Discard TCS foods that were in the cooking or re-heating process but did not reach a safe final temperature.

Dishwashing:

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

Alternative Resources:

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

1. A plan should be in place to refuel generators during long term power outages.
2. 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 food.

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.

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 [Water-Related Emergencies](#) documents located on www.scdhec.gov/food or contact your local DHEC office for additional information.