



Validating and Monitoring the Cooling Process

Importance of validating and monitoring of the cooling process

Improper cooling is recognized as one of the leading causes of foodborne illness. The effectiveness of cooling methods used in each school needs to be validated to ensure that they accomplish the *Food Code* cooling guidelines. Cooling time and temperature is an established critical control point and needs to be monitored and documented throughout the cooling process.

Validating your cooling process

Each facility should establish and follow Standard Operating Procedure(s) (SOP) for cooling foods to ensure that cooling times/temperatures comply with the critical limit for each product. Institute of Child Nutrition (ICN) has developed *USDA HACCP-Based SOPs: Cooling Time/Temperature for Safety Foods* as an example. Train all staff to know the *Food Code* time and temperature guidelines and to perform cooling as established in your SOP(s). Oversee employees to ensure that SOPs are followed.

Cooling temperatures must be verified at regular intervals. Hazard Analysis Critical Control Points (HACCP) procedures require documentation of cooling times/temperatures to verify that they meet the *Food Code* guidelines. To verify your cooling procedures, monitor and document your cooling methods hourly, using a calibrated thermometer and a variety of food items. Review the data in cooling logs, and document whether the cooling process is effectively meeting the guidelines.

Follow state or local health department requirements in your cooling SOP as well. Review and revalidate the SOPs annually or whenever equipment or other changes occur.

Monitoring

Use calibrated thermometers or data loggers to monitor time and temperature throughout the entire cooling process. Modify menus and/or staffing schedules to ensure that adequate monitoring can occur.

- Check food temperatures with a clean, sanitized, and calibrated probe thermometer.
- Take the temperature of food frequently enough during the cooling process so that corrective action can be taken if necessary.
- Record the temperature and time on the cooling temperature log.
- Take corrective actions if the temperature and time requirements are not met.



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Corrective actions

Corrective actions are planned steps that are taken if food does not meet a critical limit. Corrective actions must be measurable and specific. The corrective action will bring the critical control point within critical limits and ensure the safety of the food served. A list of corrective actions is included in your school's HACCP plan.

If a food that is being cooled does not meet the critical cooling limits of 70 °F or below within 2 hours, or if it meets the first cooling limit of 70 °F or below within 2 hours, but then fails to reach 41 °F within a total of 6 hours, then the food must be reheated to 165 °F for at least 15 seconds and the cooling process started again. If the food fails to reach the critical cooling time and temperature limits a second time, it must be discarded. Document all corrective actions.

Cooling temperature chart samples

Date	Food Item	Start Time	End Time	Initials	Verified by	Corrective Action needed
		Start Temp	End Temp			

Food Item	Time Cooking Completed	Temp	Time to 70 °F	Temp	Time to 41 °F	Temp	Initials/Date

Date	Food Item	Start TIME	TIME	TIME	TIME	End TIME	Corrective Action	Initials	Verified by
		TEMP	TEMP	TEMP	TEMP	TEMP			



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