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## SOP for Tempering/Thawing of Frozen Materials

1. Place frozen product in a tempering room or cooler that is maintained at 50°F or colder and allow product to thaw or reach desired level of tempering. The following additional time guideline will be followed:
  - If the room temperature is greater than 41°F but not above 50°F, thawed product must be cooled to 41°F or colder within 8 hours of thawing.
2. Alternatively, frozen ground beef or whole chickens may be tempered or thawed at a temperature greater than 50°F but not greater than normal room temperature (72°F) with the following restrictions:
  - Ground beef portions of at least 1 pound in size may be tempered/thawed for up to 9 hours.
  - Whole chickens of at least 3.7 pounds in size may be tempered/thawed for up to 9 hours.
  - Thawed product must be cooled to 41°F or colder within 2 hours of thawing.
3. Tempering/thawing conditions warmer than 72°F must be evaluated to ensure that the pathogenic bacterial growth will not occur on the products.
4. The tempering/thawing product will be monitored on a scheduled basis to prevent product drip and loss of package integrity, and to ensure that product drip does not contaminate other products.
5. The product surface temperature will be monitored and documented on a scheduled basis to ensure that the guidelines listed above are met.
6. When possible, the outer layer of trim and/or pieces being thawed will be removed and refrigerated. This process will be repeated as often as necessary to ensure that the outer surface of the thawing mass is not held for an unsafe length of time at temperatures that could allow pathogen growth.
7. The lot code of frozen product that has been purchased from an outside vendor will be recorded on a batch sheet (or production log) before tempering/thawing for use in product tracking if the vendor institutes a recall.

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Ingham, S.C., et al. 2005. Growth of *Salmonella* serovars, *Escherichia coli* O157:H7, and *Staphylococcus aureus* during thawing of whole chicken and retail ground beef portions at 22 and 30°C. *Journal of Food Protection* 68: 1457-1461. For more information contact: Steve Ingham, Extension Food Safety Specialist (608) 265-4801, [scingham@wisc.edu](mailto:scingham@wisc.edu) August, 2007