

PORK SAFETY

Title: Validation of Temperature Parameters as CCPs During Pork Fabrication
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Abstract:

Samples from chilled pork carcasses and subprimal cuts were taken in the university meat lab in pork fabrication areas where the carcasses were fabricated in both refrigerated and non-refrigerated areas. The presence of *Salmonella* and *Campylobacter* as well as the presence of indicator organisms was determined. Samples were collected at the beginning of the day, at mid-shift and at the end of the day. Ten carcasses/cuts per day in 3 separate sampling days during the spring, summer and fall were collected. The refrigerated meat lab area was maintained at a temperature of 50 F while non refrigerated areas were maintained at 70-75 F. Generally, in all processes, carcasses and cuts remained in the fabrication areas for less than 2 hour with most being in the area for less than 1 hour. In addition to carcass sampling, environmental samples were collected to determine if cross-contamination could occur. In the processing plant environments, there were no significant increases in indicator organisms or in pathogen loads during the processing day indicating that the environments were safe as long as the carcasses were fabricated quickly and returned to the cooler within 2 hours. There were no differences in seasonal data.

Because this information did not set a critical limit for processors with regard to processing room times/temperatures, further studies were conducted under more controlled settings in the lab environment. We determined that there were no significant increases in coliforms or total aerobic plate counts when the subprimal cuts were held in a non-refrigerated area for up to 4 hours. At 6 hours, we observed 1-2 log cycle increases on surfaces indicating that the critical limit in a non-refrigerated area should be set at 4 hours. In a HACCP plan, the critical limit when processors fabricate carcasses in non-refrigerated areas maintained at or below 75 G should be a time factor of less than 4 hours.

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