THE HAZARD ANALYSIS

In the “process approach” to HACCP, conducting a hazard analysis on individual food items is time and labor intensive and is generally unnecessary. Identifying and controlling the hazards in each food preparation process listed above achieves the same control of risk factors as preparing a HACCP plan for each individual product.

Example: An establishment has dozens of food items (including baked chicken and meatloaf) in the “Preparation for Same Day Service” category. Each of the food items may have unique hazards, but regardless of their individual hazards, control via proper cooking and holding will generally ensure the safety of all of
the foods in this category. An illustration of this concept follows:

- Even though they have unique hazards, baked chicken and meatloaf are items frequently grouped in the “Same Day Service” category (Process 2).

- *Salmonella* and *Campylobacter,* as well as spore-formers, such as *Bacillus cereus* and *Clostridium perfringens*, are significant biological hazards in chicken.

- Significant biological hazards in meatloaf include *Salmonella*, *E. coli* O157:H7, *Bacillus cereus,* and *Clostridium perfringens.*

Despite their different hazards, the control measure used to kill pathogens in both
these products should be cooking to the proper temperature. Additionally, if the products are held after cooking, then proper hot holding or time control is also recommended to prevent the outgrowth of spore-formers that are not destroyed by cooking. As with product-specific HACCP, critical limits for cooking remain specific to each food item in the process. In the scenario described above, the cooking step for chicken requires a final internal temperature of 165 ºF for 15 seconds to control the pathogen load for *Salmonella.* Meatloaf, on the other hand, is a ground beef product and requires a final internal temperature of 155 ºF for 15 seconds to control the pathogen load for both *Salmonella* and *E. coli* O157:H7. Note that there are some operational steps, such as refrigerated storage or hot holding, that have critical limits that apply to all foods.

The following table further illustrates this concept. Note that the only unique control measure applies to the critical limit of the cooking step for each of the products. Other food safety hazards and control measures may exist: