## 7. Requirement for Daily Testing

Each establishment would be expected to collect a minimum of one specimen for testing each day from each slaughter class and/or class of raw ground product, beginning 90 days following publication of the final rule. Once-a-day sampling is based on the natural daily cycle in production processes, starting with daily cleanup. Contamination builds up as operations progress throughout the day. The required sanitation/cleanup returns the level of contamination to essentially zero, thus starting a new cycle. As explained in the next section, FSIS considers one sample a day to be statistically adequate to verify process

As alternatives to the one sample per day being proposed in this document, FSIS considered requiring a sampling plan based on establishment production volume, or by lot, which would have meant, for most plants, many more than one sample per species per day. It also considered a sampling plan based on less than one sample per species per day, particularly for small plants. FSIS invites comment on its sampling plan, including the frequency of sampling.

FSIS recognizes that some establishments are currently conducting broader microbial testing than FSIS is proposing, and broader microbial testing will play an important role in an establishment's implementation of HACCP. More than once-a-day testing would have the advantage of providing more rapid analytical verification of process control. However, the Agency is proposing to require only one sample per species per day to achieve the dual purposes of using a statistically valid method and reducing the cost of testing. The Agency believes that maintaining a requirement for species-based testing is needed to provide analytical verification of process control.

Ås a general matter, single qualitative tests (positive or negative) provide adequate but minimum acceptable information regarding the level of process control. These singular results need to be accumulated over time for process verification. Daily testing (one test per day) was considered to be the minimum sampling required to deliver acceptable sensitivity for detection of process deviations within a realistic timeframe.

FSIS is not proposing at this time to use these testing results for making decisions on the disposition of specific lots of product. The amount of testing FSIS is proposing is not adequate to assure a specific lot is free of *Salmonella*. The purpose of the testing

is to verify the performance of an establishment's system of process controls. As explained below, establishments not meeting the target within the specified time will be required to take remedial measures under FSIS inspection.

As proposed, each establishment would develop a written protocol, available for review by Program employees, outlining specimen collection and handling. It would, at a minimum, include:

- Designation of a responsible individual;
- The number of specimens to be collected from each slaughter class and/or species of ground meat and/or poultry;
- Description of random sampling procedure (i.e., how to determine which carcasses are to be sampled to ensure that specimens are representative of that day's production);
- Who will conduct the analysis (e.g., in-house laboratory, commercial laboratory, etc.; and
- Moving sum verification procedure (chart or table).

The designated representative of the establishment would collect the specimen at the end of the production process. For meat this would be prior to the carcass leaving the cooler; for poultry this would be immediately post-chiller; for raw ground meat and poultry, this would be prior to packaging. Samples would be taken as follows:

*Poultry:* whole bird rinse with the carcass selected after the chiller, at the end of the drip line.

Beef: excised brisket skin tissue, 4 inches  $(10.2 \text{ cm})\times4$  inches  $(10.2 \text{ cm})\times\frac{1}{2}$  inch (1.3 cm) in depth, collected in the cooler, after chilling.

Hogs: excised belly skin tissue, 3 inches (7.6 cm)×5 inches (12.7 cm)× $\frac{1}{2}$  inch (1.3 cm) in depth, collected in the cooler, after chilling.

Raw ground meat and poultry products: 1/2-pound (0.4 kg) sample, collected prior to packaging.

The analytical sample size and the method used would give a result equivalent to the result that would be obtained using the FSIS Procedure for Isolation and Identification of Salmonella from Food. (Requests for this document should be sent to the Director, Microbiological Division, FSIS, U.S. Department of Agriculture, Washington, DC 20250.) Samples would be drawn randomly, from all product produced. Samples would be taken for regulatory purposes and, therefore, would be required to meet all of the attributes of an official method (approved for use by Association of

Official Analytical Chemists or other recognized scientific body). The method chosen must be verified by in-house data within the testing laboratory.

An establishment would be allowed to test the specimens in its own laboratory or in a commercial/contract laboratory. However, the laboratory that is selected must demonstrate experience in testing meat and poultry for Salmonella spp. Either an internal or external laboratory quality assurance/quality control (QA/QC) program with check sample analysis would be required. QA/QC records must be available to FSIS personnel, with FSIS reserving the right to send official samples to the laboratory to verify laboratory capabilities.

The laboratory would record the results and provide the results daily to the establishment, which would enter the results in a chart or table daily to determine whether the process in question is meeting pathogen reduction target levels.

The establishment would provide all the test results at least weekly to Program employees for entry into the FSIS's database. Electronic transmission of test results would be allowed.

## 8. Determining Compliance With Target Levels

In accordance with the FSIS food safety strategy of articulating what constitutes an acceptable level of food safety performance by a meat or poultry establishment and holding the establishment accountable to that performance, a moving sum statistical procedure is being proposed to evaluate whether establishments are achieving the interim targets for pathogen reduction. The moving sum procedure is a tool for evaluating whether the process control system is functioning and is designed to assess the effectiveness of a system in relation to a specified target level of performance. It focuses on a specific number of days (window) within a production process and evaluates that process to determine whether its performance meets or fails to meet that target level over that period

Using this moving sum procedure, establishments will track the results of end-product testing to evaluate the effectiveness of their production systems for controlling pathogens in relation to the interim target FSIS will be establishing for each specific commodity. This method of evaluation was chosen because it provides an effective means of utilizing the microbiological assessment of end products to verify process control, based on a single sample per slaughter class