

6330.1

OPI: SISPD/S&T

CARCASS SPRAYING DURING CHILLING

I. PURPOSE

This directive describes FSIS's policies and minimum requirements for acceptance of use of water sprays on carcasses during the chilling process.

II. CANCELLATIONS

MPI Manual, Subpart 18-P (18.91)
Guidelines for Submitting Partial Quality Control Programs
Using Alternate Procedures for Monitoring Carcass Spray Chilling,
Revision, October 1986
Interim Guidelines for "100 Percent Sampling" of Cattle Carcass Spray
Programs, 1991
Item 3(a) of Attachment to MPI Bulletin 83-14

III. [RESERVED]

IV. REFERENCES

MPI Regulations, Sections 301.2(c)(8) and 318.4(d)
FSIS Directive 6340.1, dated 11/24/92
FSIS Directive 8830.1, dated 3/1/91

V. ABBREVIATIONS

The following abbreviations will be used in this directive:

AS	Area Supervisor
CCP	Critical Control Point
CS	Circuit Supervisor
IIC	Inspector in Charge
IO	Inspection Operations
PQC	Partial Quality Control
RD	Regional Director

VI. DEFINITIONS

For purposes of this directive, the following definitions shall apply:

- A. Cold Weight. Post-chill/post-spray weight.
- B. Hot Weight. Pre-final wash/pre-chill weight.
- C. Carcass. The two sides, in whole or separate, of any slaughtered livestock.

D. Group. A shift's production of carcasses.

VII. POLICY

A. The FSIS inspection program permits spraying of carcasses with water during the carcass chilling process as long as inspection personnel can be assured that the spray equipment and its use comply with all applicable regulations. Establishments wishing to ensure that their spray systems comport with applicable regulations should ensure that it is used in accordance with a PQC program accepted by FSIS in accordance with this directive.

B. IO monitors official establishment compliance with the MPI Regulations that prohibit economic adulteration as defined in Section 301.2(c)(8). A group of sprayed carcasses may not show a gain in weight as the result of the spraying process. A carcass spray system is to be operated in a manner that does not result in the total cold weight of untrimmed carcasses from a shift's production being higher than the total hot weight of the same carcasses. However, individual carcasses may show an increase in weight.

VIII. REQUESTS FOR CARCASS CHILLING SPRAY SYSTEMS

A. Establishment management wishing to spray carcasses during the chilling process should send to the RD, through the IIC, a letter and the PQC program for the carcass spray system for acceptance, and three copies of the letter and PQC program, one each to the IIC, CS and AS.

B. The letter addressed to the RD should request provisional acceptance of the establishment's PQC program and should include:

1. Objective(s) of the system;

2. Establishment management's commitment to comply with the provisions of their accepted PQC program for a carcass spray system and with Section 318.4(d) of the MPI Regulations;

3. A statement that current approved blueprints accurately reflect establishment conditions for the carcass spray system;

4. The name of the establishment official(s) responsible for the PQC program;

5. The records that will be maintained and the length of time they will be retained; and

6. A statement of commitment that the carcass spray procedure and carcass weighing do not cause a nuisance to inspection or insanitary conditions.

C. The PQC program should be in a columnar format and contain a

written description of the following:

1. Procedure for carcass spraying;
2. Procedure for carcass weighing;
3. Procedure for random selection of carcasses;
4. Procedure for corrective actions when either the establishment's or FSIS's monitoring tests indicate that the process has produced a group of carcasses with cold weights greater than hot weights;
5. An outline of each CCP in the process;
6. A standard for each CCP;
7. Frequency of testing at each CCP;
8. A method for checking performance at each CCP to assure that the standard is met and a description of the action to be taken when the standard is not met;
9. A system of documenting the checks and actions; and
10. Procedures for the on-going monitoring of the process.

D. Establishments slaughtering different classes or species of livestock and/or using more than one cooler to chill carcasses may develop and submit separate PQC programs reflecting the differences in class, type or cooler.

E. If the PQC program is acceptable, a 30 working day provisional acceptance will be granted by the RD and the establishment may proceed with the 10 days/32 carcass test in accordance with Paragraph IX. A 10 days/32 carcass test should be conducted on each PQC program provisionally accepted by the RD.

F. Full acceptance of the PQC program by the RD will only be granted if the PQC program proves to meet all the requirements, and the 10 days/32 carcass test results are acceptable.

IX. THE 10 DAYS/32 CARCASS TEST

A. This test is used by FSIS to determine that the establishment's carcass spray system will not cause added weight gain in a group of carcasses, once the PQC program has been provisionally accepted by the RD.

B. The test should be conducted as follows:

1. Randomly select no less than 32 carcasses per day, with an equal number of carcasses within each hour of slaughter, for no less than 10 consecutive workdays.

2. Determine the total hot weight and cold weight of the 32 carcasses.

3. If the total cold weight of the 32 selected carcasses representing a group does not exceed the total hot weight, the carcasses may be further processed or shipped.

4. If the total cold weight of the 32 selected carcasses in the group is above the total hot weight, the establishment should stop all spraying operations until the spraying system is adjusted. The 10 days/32 carcass test should be repeated and be judged acceptable by the IIC within the 30 working days provisional acceptance.

C. During the 10 days/32 carcass test, the IIC should verify the establishment's tests and results. Comments should be forwarded to the RD through supervisory channels.

D. The 10 days/32 carcass test is also required when the establishment makes a change in its carcass spray system that increases the exposure of the carcasses to water (e.g., increase in the volume of water used, pressure of water used, length of time spray is administered, and/or frequency of times carcasses are sprayed).

E. If 32 carcasses represent more than 10 percent of a day's slaughter, then less than 32 carcasses a day may be sampled, but the test should continue for more than 10 days so that the total number of tested carcasses will be at least 320.

F. Establishments with spraying systems accepted before this directive was issued should submit, within a year, a letter addressed to the RD and four copies of a PQC program in accordance with the requirements of this directive for acceptance by the RD.

X. PARTIAL QUALITY CONTROL PROGRAM OPERATING GUIDELINES

A. Establishments operating a carcass spray system under an accepted PQC program should:

1. Ensure that facilities and equipment used in the carcass spray system are clean before spraying begins and are maintained in acceptable operating condition.

2. Designate an establishment official(s) to review and evaluate the PQC program for the carcass spray system and to correct deficiencies.

3. Ensure adequate training of establishment employees in the proper implementation and operation of the PQC program.
4. Keep accurate records of all equipment checks and incidents that require the PQC program to be adjusted or re-accepted.
5. Provide test results to inspection personnel, upon request.
6. Meet with the IIC periodically to discuss acceptable operating practices, problems and plans for improvements.
7. During and after the installation and 10 days/32 carcass testing of the PQC program, ensure that the carcass spray system is not interfering with the duties of inspection personnel or creating an insanitary condition.

B. Weighing of carcasses.

1. An accurate unwashed hot weight of the carcasses is determined and recorded by establishment personnel.
2. No trimming or removing of parts of test carcasses is to occur between the recording of the initial hot weight and the cold weight taken after the carcass spray procedure.
3. In lamb establishments where it is the practice to weigh two or more carcasses hung by "A" frames or similar hangers from a single trolley during spraying, it is acceptable to treat the multiple carcasses as a single unit. In such cases, the total weight of the multiple carcass unit constitutes the weight of the unit.

C. Establishment's daily monitoring test.

1. From a group, randomly select 16 carcasses.
 - a. In establishments with hot weights identified on 100 percent of the carcasses immediately before the final wash, the 16 carcasses may be randomly selected from the cooler.
 - b. In establishments without hot weights identified on 100 percent of the carcasses, the 16 carcasses should be selected on the kill floor immediately before the final wash, with an equal number of carcasses within each hour of slaughter, and each test carcass should be identified with a number, its hot weight and its date of slaughter.
2. Determine the total hot weight of the 16 carcasses.
3. After chilling and spraying, weigh the 16 sprayed carcasses and determine the total cold weight.

4. Determine if the total cold weight exceeds the total hot weight.

D. Actions.

1. If the total cold weight of the 16 carcasses does not exceed the total hot weight, the group may be further processed or shipped.

2. If the total cold weight of the 16 selected carcasses exceeds the total hot weight, the establishment should:

a. Notify the IIC immediately,

b. Stop all spraying operations until the spraying system is adjusted, and

c. Perform a 10 days/32 carcass test after the spraying system has been adjusted.

XI. INSPECTION PERSONNEL RESPONSIBILITIES

A. Develop a written plan for monitoring the PQC program that includes at least once a week verification of 20 to 100 percent of the carcasses tested during the establishment's daily monitoring test.

B. Evaluate establishment's records of carcass weights and corrective actions as the IIC deems necessary.

C. Monitor establishment's corrective actions taken in response to identified deficiencies.

D. Take formal action in accordance with MPI Regulations, Section 318.4 and FSIS Directive 8830.1 in any situation where the spraying system is found unacceptable as a result of evaluation and verification tasks performed by inspection personnel.

W. S. Horne
Deputy Administrator
Inspection Operations