Spray Chilling Frequently Asked Questions

1. If we spray different categories of stock (eg bull, cow) with different spray regimes (number of sprays/volume etc) can we treat these as a common lot?

Answer: Yes, but no individual category should gain weight.

Reason: Permitting differing spray regimes for various categories of stock within the same spray chilled "lot" is beyond the definition of lot specified in the spray chilling standard. Notwithstanding this, IS6 provides for validated alternatives that meet the required outcome (IS6 1.3.3). It is considered that permitting an alternative in this instance meets the intent of the spray chilling criteria for a nil weight gain.

Some companies have more than one category of stock in a chiller or chilling floor.
The aim is to give each category of stock the maximum possible coverage of water, targeting a common minimal weight loss for all categories of stock in the chiller. To do this different sprays/volumes may be used as different categories of stock uptake water at different rates. Generally each category should not gain weight and the company should have sufficient historical records to demonstrate this. Process control records demonstrating spray regimes applied to each category of stock, may facilitate demonstrating that a particular category of stock does not gain weight when a specified spraying regime is used. It would be expected that companies confirm that different categories of stock are not gaining weight, on a performance basis, as component of their internal verification programme.

2. What if records show different sub lots (eg classes) gain weight, but overall the "lot" has a nil weight gain.

Answer: Where sub lots have small gains in weight (eg: <0.5%), the product can be processed and the company should review its spray chilling process. If a sub lot shows a significant or routine weight gain (eg: due to spraying a category of stock with an excessive volume of water) this product cannot be mixed with other complying lots so that overall the lot complies. The sub lot with a weight gain will be treated as non-complying product

3. We process different categories of stock (e.g. bull, cow) and treat with different spray regimes (number of sprays/volume etc) and distribute these in a number of chillers. Can we consider each stock class as a lot, even though it may be in one or more chillers?

Answer: Yes as long as the definition is documented in plant procedures.

Note: A processor cannot choose both proposals outlined in 1 or 3, these options are mutually exclusive.

4. Can we include product slaughtered at different premises in a common lot.

Answer: No

Reason: Different plants operate different spray chilling processes. It is not acceptable to consider product from more than one premises as a lot.

5. Can we treat multiple boning days as a common lot?

Answer: No

Reason: The lot size definition in the AP (Specifications for Products Intended for Human Consumption) Notice 2004, requires that lots are produced within a "limited period of time". For spray chilling, a "limited period of time" would not be expected to exceed one days worth of boning.

The limitation on a lot being no more than a days worth of boning is not intended to preclude day and night shift product being treated as a common lot, or product from a shift that extends past midnight being treated as a common lot.

6. Do I need to keep records of weights pre and post spray chilling for a Type 1 Option 2 system?

Answer: Yes

Reason: It is in the interests of the operator to keep records to prove that they are complying with their validated chilling systems. As the Type 1 Option 2 system requires 100% reweighing it is expected that there will be records for cold and hot weights of all units, where practicable.

If a company has a scanning system in place that prevents any overweight units from entering the boning room, it would be expected that records are made and these would be kept.

Where scanning systems aren't in place and weights are taken manually, as a minimum, records should be written and kept at least once per run for a specified number of randomly selected units to show that the system is compliant. The number of units recorded should be justifiable in consideration of the carcass numbers processed.

In all situations overweight units that are sent back to the chiller for further drying need to be able to be identified in records, to demonstrate that the final cold weight is less than or equal to the hot weight.

7. Where I make allowances for skid weights as tare weights do these weights have to be the same for the carcasses pre and post spray chilling?

Answer: Generally, Yes

Reason: Tare weights may be used for hot weighing (to account for skid weights or similar) so long as the same tare is used when taking the cold weight of that carcass. As the skid is generally the same for the hot and cold weight measurements, tare weights must be consistent for each and every carcass weight taken to ensure that if the unit is subjected to excessive water absorption it is detected when the cold weight is taken. If the skid changes between the hot and cold weight measurement then a variable tare weight may be appropriate and justifiable.

8. Can I remove carcass parts after the hot weight has been taken and before the cold weight is taken?

Answer: Generally, No

Reason: Trimming of carcasses or the removal of parts is not allowed due to the fact that this could be used to compensate for excess water absorption.

There are some circumstances where there are justifiable reasons for removal of carcass parts between hot and cold weight measurements. For example, to remove cattle neck bones to ensure nil spinal cord or dura. In these situations, companies must have robust systems to show that an allowance is made for the weight of the removed carcass part that will not provide for masking weight gains due to water absorption.