

System of integration of measures for the animal welfare assessment protocol for cattle in slaughterhouses

1. Introduction

Animal welfare must be regarded as a multidimensional concept. It includes both the physical and mental health of the animals and comprises aspects as diverse as physical or thermal comfort, the absence of hunger or disease, the possibility of being able to engage in behaviours that are important to the species, etc. Taking this concept as the basis, the Welfare Quality assessment protocols define animal welfare on the basis of 4 principles: Good feeding, Good housing, Good health and Appropriate behaviour, in which animal welfare is guaranteed when the 4 principles are observed. Another important point to be considered in the Welfare Quality protocols are the criteria used to define these 4 principles, and which are summarised in Table 1.

Table 1. Basic principles and criteria for the Welfare Quality Assessment Protocols.

Good feeding	1.Absence of prolonged hunger
	2.Absence of prolonged thirst
Good housing	3.Comfort around resting
	4.Thermal comfort
	5.Ease of movement
Good health	6.Absence of injuries
	7.Absence of disease
	8.Absence of pain induced by management procedures
	9.Expression of social behaviours
Appropriate behaviour	10.Expression of other behaviours
	11.Good human-animal relationship
	12.Positive emotional state

The 12 animal welfare criteria into which these 4 principles are divided are common to all the protocols developed in Welfare Quality, both on the farm and in the slaughterhouse. What distinguishes the different protocols are the measures used to assess each one of the principles, which change depending on the species, site or age of the animals to be assessed. Below is the table of measures used in the Welfare Quality protocols for the assessment of animal welfare in cattle in the slaughterhouse (Table 2).

Table 2. Welfare Quality Protocol for cattle in the slaughterhouse.

Good feeding	1.Absence of prolonged hunger	Accumulated fasting at unloading, accumulated fasting at the lairage pens, feed supply during lairage.
	2.Absence of prolonged thirst	Water supply during lairage
Good housing	3.Comfort around resting	Density in the lairage pens, floor condition in the lairage pens, luminosity in the lairage pens, bedding material during lairage, the slaughterhouse's capacity and logistics
	4.Thermal comfort	Unloading dock and truck waiting area
	5.Ease of movement	Slips, falls, slope of the dock, available space and bedding material in the truck
Good health	6.Absence of injuries	Lameness, bruises on carcasses, walls, flooring and doors
	7.Absence of disease	Sick animals, mortality on arrival and mortality during lairage
	8.Absence of pain induced by management procedures	Management of sick animals, corneal reflex, eyeball rotation, spontaneous blinking, rhythmic breathing, righting reflex, re-stunning
Appropriate behaviour	11.Good human-animal relationship	Vocalisations when the animals are driven into the stunning area, coercion, material to handle animals, stops of more than 2 minutes, training in animal welfare.
	12.Positive emotional state	Freeze, trying to turn back, turning back, moving backwards, struggling in the box, kicking in the box, jumping in the box, vocalisations in the box

Therefore, the measures described in the Welfare Quality protocol can be used, defining different thresholds, both as part of an auditing system in slaughterhouses to guarantee that minimum animal welfare levels are fulfilled (including some installation-specific measures) or as a certification system of high standards in animal welfare that permits distinctive labelling intended for markets with added value.

2. Presentation of the document for auditing cattle slaughterhouses in animal welfare

The assessment of animal welfare is performed in relation to the 12 Welfare Quality criteria. Nevertheless, the following areas are distinguished inside the slaughterhouse to assess the measures: 1. Unloading area, 2. Lairage pens or area, 3. Driving into stunning area, 4. Stunning area, 5. Carcasses area. In each one of these zones, the measures are combined in the most efficient way possible until the minimum n required by the protocol are obtained. This document seeks to establish the calculation system on the basis of the thresholds of each measure separately, their combination based on criteria and finally based on principles until a final score is obtained for the protocol. It also includes some non animal-based measures that complement the measures described in the Welfare Quality.

2.1. Good feeding

2.1.1 Absence of prolonged hunger

Accumulated fasting at unloading. The time at which the unloading begins is noted, a check is performed to ensure that the carrier's documents include the time at which loading of the animals at the farm began, the approximate time at which the feed was withdrawn from them on the farm and whether they were fed in transit. If fasting times are not included, a supplier commitment stating the fasting time on the farm before loading should be available. This is done for all unloadings assessed for the rest of the measures. Only hay and animal feed are regarded as food (milk and milk substitutes in suckling animals).

When all this information is available in all the unloadings and when fasting time on the farm and fasting time in transit are added together and do not exceed 24 hours without the animals having been fed, 100 points are obtained. If there is one case in which the animals arrive having fasted for more than 24 hours (and not more than 30 h) but are fed or are slaughtered immediately, 80 points are obtained.

When a period of 24 hours is exceeded in two unloadings (without exceeding 30 hours) without the animals having been fed but the slaughterhouse provides the animals with sufficient and properly distributed feed immediately on arrival or they are slaughtered immediately, 60 points are obtained.

When in one or more unloadings the animals accumulate more than 30 hours without having received any type of feed or no information is available about accumulated fasting, but the slaughterhouse provides the animals with sufficient and properly distributed feed immediately on arrival or they are slaughtered immediately, 20 points are obtained. Moreover, 20 points are obtained when there are more than two unloadings with fasting of more than 24 hours (and up to 30 h) but they are fed or slaughtered immediately on arrival.

If in a single unloading the animals accumulate more than 30 hours without having received any type of feed or no information about the accumulating fasting is available and they are not fed or slaughtered on arrival (or any other undescribed case), 0 points are obtained.

SCORE	ASSESSMENT
100	All unloadings with ≤ 24 h fasting
80	One unloading with > 24 h and ≤ 30 h of fasting and the animals are fed or slaughtered immediately
60	Two unloadings with > 24 h and ≤ 30 h of fasting and the animals are fed or slaughtered immediately
20	Any unloading with > 30 h of fasting or without information or more than two unloadings with > 24 h and ≤ 30 h and they are fed or slaughtered immediately
0	Any unloading with > 30 h of fasting or without information and they are not fed or slaughtered immediately

Accumulated fasting at the lairage pens. In each one of the pens assessed, the existence of a record of the animals' exact arrival time and their accumulated fasting time on arrival, counting on-farm fasting and the duration of transit is checked. For the assessment of this measure, the pen in which the animals have been housed for the longest time plus eight pens selected randomly are considered. The slaughterhouse must tell the assessor in which lairage pen the animals have been housed the longest. Only hay and animal feed are regarded as food (milk and milk substitutes in suckling animals).

When all this information is available in all the pens individually, and when after the fasting time on the farm, the fasting time in transit and the lairage time in the slaughterhouse are added up and do not exceed 24 hours without the animals having received any feed, 100 points are obtained. If more than 80% of the pens assessed fulfil these requirements, 80 points are obtained. Eighty (80) points are also obtained when all the information is not in the individual pens, but it is in the lairage area on a screen or whiteboard/blackboard which shows all the pens together. When a minimum of 50% and a maximum of 80% of the pens assessed fulfil these requirements, 40 points are obtained. When this occurs in less than 50% of the pens assessed, 20 points are obtained.

When 100% of the pens assessed have all the information available and 24 hours have elapsed without the animals having been fed, if there is no information available or when any lairage pen in which the animals have been housed for more than 12 hours and have not been given any feed is identified, 0 points are obtained.

SCORE	ASSESSMENT
100	100% with ≤ 24 h and individual information available
80	$> 80\%$ with ≤ 24 h and information available individually or information about all the pens on a blackboard/whiteboard or screen
40	$\geq 50\%$ with ≤ 24 h and information available
20	$< 50\%$ with ≤ 24 h and information available
0	100% with more than 24 hours and information available, 100% without information available on any pen with animals housed for more than 12 hours without having been fed

Feed supply during lairage. Whether or not the slaughterhouse has feed or a plan to obtain it rapidly and has any device for feeding the animals that can be used in the lairage pens is assessed. In the case of feeding racks, their presence, number, state of repair and state of cleanliness are assessed.

When the slaughterhouse has a sufficient number of fixed or mobile feeding racks to be able to feed at least all the animals from a truck (taking the truck with the highest number of animals unloaded during the assessment day/s and the capacity of the lairage pens into account) as well as feed in the same facilities, or it has a plan in place to obtain it rapidly if necessary, a minimum number of 40 points is obtained, which may reach a maximum number of 100 points depending on the state of repair and cleanliness of the feeding racks. When 100% of the devices are in a good state of repair and cleanliness, 100 points are obtained. When between 60% and 100% of these devices are in a good state of repair and cleanliness and none of them are a demonstrable source of injuries to the animals, 80 points are obtained. When the same conditions are obtained in a maximum of 60% of the feeding racks, 40 points are obtained.

When the slaughterhouse does not have feeding racks, when it has feeding racks, but they are a demonstrable source of injuries to the animals or there is no plan in place for obtaining food rapidly, 0 points are obtained.

SCORE	ASSESSMENT
100	Devices available, plan available and 100% in a good state of repair and cleanliness
80	Devices available, plan available and <100% but >60% in a good state of repair and cleanliness (no demonstrable source of injuries).
40	Devices available, plan available and ≤60% in a good state of repair and cleanliness (no demonstrable source of injuries).
0	There are no feeding racks, there is no plan or the feeding racks are a demonstrable source of injuries to the animals.

The measures of the Absence of prolonged hunger criterion are combined in the following way:

$(0.40 \times \text{accumulated fasting at the time of unloading} + 0.40 \times \text{accumulated fasting in the lairage pens} + 0.20 \times \text{supply of feed during lairage}) = \text{Absence of prolonged hunger criterion score.}$

2.1.2 Absence of prolonged thirst

Water supply during lairage. The availability of water to the animals, as well as the state of cleanliness, functioning, position and maintenance of the drinking troughs is assessed. It is assessed in eight lairage pens selected at random. An individual score is obtained for each pen and the average of the eight pens is then taken. All the drinking troughs that are in an unsuitable position (too high) or do not work are omitted.

When the drinking troughs are clean (no faeces and mould in the water), operate properly, are in a suitable position (befitting the size of the animals housed in the pen, e.g., 60-80 cm from the floor is recommended in fattening calves) and in a good state of repair, the following points

are obtained: 100 points when there is a drinking trough for every 13 animals or 6 cm of linear drinking trough per animal; 80 points when there is a drinking trough for every 14 animals or 5.5 cm of linear drinking trough per animal; 60 points when there is a drinking trough for every 15 animals or 5 cm of linear drinking trough per animal.

When the drinking troughs present signs of corrosion (although they are not a demonstrable source of injuries to the animals), are dirty (presence of faeces and/or mould in water), drip heavily or have a clearly deficient flow, half of the score from the previous paragraph is obtained in relation to the number of animals per drinking trough and centimetres of linear drinking trough per animal. In other words, 50 points for 13 animals/drinking trough or 6 cm of linear drinking trough per animal; 40 points for 14 animals/drinking trough or 5.5 cm of linear drinking trough per animal; 30 points for 15 animals/drinking trough or 5 cm of linear drinking trough per animal.

When there are more than 15 and less than 20 animals per drinking trough or more than 4 cm but less than 5 cm of linear drinking trough per animal, provided that the drinking troughs do not constitute a demonstrable source of injuries to the animals, 20 points are obtained.

When there are 20 animals or more per drinking trough or a maximum of 4 cm of linear drinking trough per animal or if the drinking troughs are a demonstrable source of injuries to the animals due to lack of proper maintenance or poor design, irrespective of the ratio of the number of animals/drinking trough, 0 points are obtained.

SCORE	ASSESSMENT
100	1 drinking trough for 13 animals or 6 cm per animal, in good condition, clean and operational
80	1 drinking trough for 14 animals or 5.5 cm per animal, in good condition, clean and operational
60	1 drinking trough for 15 animals or 5 cm per animal, in good condition, clean and operational
50	1 drinking trough for 13 animals or 6 cm per animal, albeit with corrosion, dirt, significant dripping or with a clearly deficient flow
40	1 drinking trough for 14 animals or 5.5 cm per animal, albeit with corrosion, dirt, significant dripping or with a clearly deficient flow
30	1 drinking trough for 15 animals or 5 cm per animal, albeit with corrosion, dirt, significant dripping or with a clearly deficient flow
20	1 drinking trough for more than 15 animals but less than 20, or more than 4 cm but less than 5 cm per animal
0	1 drinking trough for ≥ 20 animals, < 4 cm per animal or any drinking trough is a demonstrable source of injuries to the animal

The measures of the Absence of prolonged thirst criterion are combined in the following way:

1*supply of water during lairage = Absence of prolonged thirst criterion score.

The Absence of prolonged hunger and Absence of prolonged thirst criteria are combined in the following way:

$(0.50 * \text{Absence of prolonged hunger} + 0.50 * \text{Absence of prolonged thirst}) = \text{Good feeding principle score.}$

2.2 Good housing

2.2.1 Comfort around resting

Density in the lairage pens. This is assessed on the basis of kilograms of live weight per square metre, considering that a fattening animal weighing 550 kg needs 1.87 m². In other words, the rule of 294 kg/m² is applied. It is assessed in a total of eight lairage pens selected at random. The slaughterhouse must provide an estimate of the weight of the animals in the required pens.

When 100% of the pens assessed have a maximum of 294 kg/m² per animal, 100 points are obtained.

When a maximum of two pens is above 294 kg/m² but 320 kg/m² per animal is not exceeded, 80 points are obtained; and 60 points if this happens in more than two pens.

When all the pens exceed 294 kg/m² and one at most exceeds 320 kg/m², 40 points are obtained; if this occurs in two pens, 20 points are obtained; and if it occurs in more than 2 pens, 0 points are obtained.

SCORE	ASSESSMENT
100	100% of the pens with $\leq 294 \text{ kg/m}^2$
80	Up to two pens with $>294 \text{ kg/m}^2$ but $\leq 320 \text{ kg/m}^2$
60	More than two pens $>294 \text{ kg/m}^2$ but all $\leq 320 \text{ kg/m}^2$
40	More than two pens $>294 \text{ kg/m}^2$ and up to 1 pen with $>320 \text{ kg/m}^2$
20	Up to two pens with $>320 \text{ kg/m}^2$
0	More than two pens with $>320 \text{ kg/m}^2$

Floor condition of the lairage pens. The maintenance condition of the floor of the pens is assessed taking three types of state into account: it is in perfect condition, there are areas with broken concrete or it is a demonstrable source of injuries to the animals. It is assessed in a total of eight lairage pens selected at random. When the pens have bedding material with a thickness of at least 10 cm, the floor of the pen is regarded as being in perfect condition.

When the condition of the floor of 100% of the pens is in perfect maintenance condition, 100 points are obtained.

When the maintenance condition of the floor is deficient (areas with broken concrete), albeit without being a demonstrable source of injuries in a maximum number of two pens, 80 points are obtained; if this occurs in more than two pens and up to a maximum of four, 60 points are obtained; and if this occurs in more than four pens, 40 points are obtained.

If due to the presence of holes or poor condition the floor is a demonstrable source of injuries to the animals in a maximum number of one pen, 20 points are obtained. If there is more than one pen in this situation, 0 points are obtained.

SCORE	ASSESSMENT
100	100% in good maintenance condition, 100% with bedding material 10 cm
80	Up to two pens with the floor in a deficient condition (areas of broken concrete)
60	More than two and up to four pens with the floor in a deficient condition (areas of broken concrete)
40	More than four pens with the floor in a deficient condition (areas of broken concrete)
20	A pen with a floor that is a demonstrable source of injuries
0	More than one pen with a floor that is a demonstrable source of injuries

Luminosity in the lairage pens. The degree of lighting in the lairage area is assessed. It is regarded as correct when a document in Times New Roman font size 10 on recycled paper can be read without difficulty. No distinction is made between natural or artificial light. This measure is assessed in the eight lairage pens selected at random.

When all the areas fulfil the previous condition, 100 points are obtained. When one area does not fulfil this condition, 40 points are obtained; if it occurs in two areas, 20 points are obtained; and if it occurs in more than two areas, 0 points are obtained.

SCORE	ASSESSMENT
100	In all areas, a text in Times New Roman font size 10 on recycle paper can be read
40	It is not possible in one area
20	It is not possible in two areas
0	It is not possible in more than two areas

Bedding material during lairage. The presence of bedding material in the lairage pens is assessed, be it straw, sawdust, rubber mats or of similar materials, as well as the amount. It is assessed in a total of eight pens selected at random.

When, in 100% of the lairage pens assessed, straw is available as a bedding material with a minimum height of 10 cm or a rubber mat of at least 5 cm with 5 cm of straw, 100 points are obtained. When this occurs in a minimum number of six pens, 80 points are obtained.

When sawdust is used as a bedding material in all the pens with a minimum thickness of 10 cm or a rubber mat of 5 cm with less than 5 cm of straw (or without straw), or there is a maximum of four pens with straw for bedding material with a thickness of less than 10 cm, 60 points are obtained.

If there are only two pens with straw for bedding material with a thickness equal to or greater than 10 cm or a rubber mat of 5 cm with 5 cm of straw, 40 points are obtained.

When there is a maximum number of four pens without bedding material, 20 points are obtained. If this occurs in more than four pens, 0 points are obtained.

SCORE	ASSESSMENT
100	100% with straw (≥ 10 cm) or rubber mat of 5 cm + ≥ 5 cm of straw
80	At least six pens with straw (≥ 10 cm) or rubber mat of 5 cm + ≥ 5 cm of straw
60	Up to four pens with less than 10 cm of straw; all the pens with sawdust ≥ 10 cm or rubber mat of 5 cm + < 5 cm of straw (or without straw)
40	Only two pens with straw (≥ 10 cm) or a rubber mat of 5 cm + ≥ 5 cm of straw
20	Up to four pens without bedding material
0	More than four pens without bedding material or any other situation

Slaughterhouse capacity and logistics. The lairage pens' capacity is assessed in relation to the slaughterhouse's slaughtering capacity (slaughter line speed expressed as the number of animals slaughtered per hour). It is regarded that a truck has waited to be unloaded if more than 5 minutes elapse between the moment it reaches the slaughterhouse and it is positioned in the bay.

When the pens have a minimum length of 3 metres, their dimensions make it possible to prevent animals that are unknown to each other from getting mixed up, and when the total capacity of the slaughterhouse's lairage area is at least three times the slaughterhouse's slaughtering capacity (for example, a slaughterhouse that slaughters at the rate of 40 animals/hour needs a capacity for 120 animals in the lairage pens), 100 points are obtained. If the above conditions apply but the size of the pens does not make it possible to clearly prevent animals that are unknown to each other from getting mixed up, 80 points are obtained.

When the slaughterhouse's lairage pens' capacity is three times the slaughterhouse's slaughtering capacity per hour or the length of the lairage pens is less than 3 metres, 60 points are obtained. Sixty (60) points are also obtained when any of the following situations occur once: unloading has to be halted for up to 30 minutes waiting until the lairage pens are empty, the animals are housed in areas that are not equipped to be lairage pens or the lairage pens are not cleaned between different batches of animals (due to lack of time or because it is not a routine practice in the slaughterhouse). If more than one of the previous situations or the same situation occurs more than once, 40 points are obtained.

When, during unloading, the animals have to wait more than 30 minutes to be unloaded due to a lack of space in the lairage pens, 20 points are obtained. If this occurs in more than one unloading, 0 points are obtained.

SCORE	ASSESSMENT
100	The length of the pens is at least 3 metres, the pens prevent the possibility of animals getting mixed up and the lairage area's capacity is at least three times the speed of the chain.
80	...the same, but if it is not evident that it is possible to prevent animals unknown to each other from getting mixed up
60	The capacity of the lairage area is less than 3 times the speed of the slaughter line or the length of the pens is less than 3 metres and a truck has to wait for up to 30 minutes to be unloaded because there is no room in the pens, the animals are housed in areas that are not equipped to be pens or the pens are not cleaned between the different batches
40	More than one of the aforementioned events occurs or the same event occurs more than once.
20	A truck has to wait for more than 30 minutes to be unloaded due to the lack of space in the lairage area
0	More than one truck has to wait for more than 30 minutes to be unloaded due to the lack of space in the lairage area

The measures of the Comfort around resting criterion are combined in the following way:

$(0.3 \cdot \text{density in the lairage pens} + 0.2 \cdot \text{condition of the floor in the lairage pens} + 0.2 \cdot \text{luminosity in the lairage pens} + 0.1 \cdot \text{bedding material during lairage} + 0.2 \cdot \text{slaughterhouse's capacity and logistics}) = \text{Comfort around resting criterion score.}$

2.2.2 Thermal comfort

Unloading dock and truck waiting area. The unloading dock is assessed with regard to whether it protects the animals from unfavourable atmospheric conditions, such as rain or sunlight, if there is an adequately protected waiting area for the number and size of the incoming vehicles and whether the carriers use it adequately. For both the unloading dock and the waiting area to be regarded as a protected area, the entire part of the truck where the animals are housed must be covered. It is regarded that a truck has waited to be unloaded if more than 5 minutes elapse between the moment it reaches the slaughterhouse and it is positioned in the dock.

When the unloading dock and truck waiting area are protected from unfavourable atmospheric conditions and no truck is observed waiting outside this area, 100 points are obtained. If there is an area prepared and protected for trucks to wait and a maximum number of one truck is observed outside this area, either due to a lack of space in the waiting area or through malpractice by the carrier, 80 points are obtained.

When there is no protected waiting area for trucks, but they are not seen to wait for more than one unloading before being able to access the unloading dock, 60 points are obtained. If this occurs twice, 40 points are obtained.

When the unloading bay is not covered, 20 points are obtained. If furthermore, there is at least one truck waiting to be unloaded in an uncovered area, 0 points are obtained.

SCORE	ASSESSMENT
100	The unloading dock and truck waiting area protects them from unfavourable atmospheric conditions
80	There is a covered waiting area but there is a truck waiting outside this area
60	There is no covered waiting area and one truck at most has to wait to be unloaded
40	There is no covered waiting area and two trucks at most have to wait to be unloaded
20	The dock is not fully covered
0	The dock is not fully covered and there is at least one truck waiting to be unloaded

The measures of the Thermal comfort criterion are combined in the following way:

1*unloading dock and truck waiting area = Thermal comfort criterion score

2.2.3 Ease of movement

Slipping. Slipping is defined as a loss of balance in which the animal loses its foothold or its hooves slide on the floor surface. No other body parts except the hooves are in contact with the floor surface. Slipping is noticed as a lowering of an animal's body due to the gliding or folding of leg/legs, possibly in combination with an interruption of movement. This measure is assessed in the slaughterhouse's unloading area, considering the number of slips out of the total number of animals unloaded in a minimum number of two unloadings (minimum 50 animals). This is not assessed in animals that are incapable of moving by themselves.

The unloading area is defined as the ramp of the truck and the slaughterhouse ramp, if there is one. If the slaughterhouse does not have a ramp, the unloading area is regarded as the area from the beginning of the ramp of the truck to the end of the slope of the floor or else up to about 3 m from the end of the ramp of the truck. It must be remembered that no event that occurs inside the truck is assessed, and in all cases the assessment begins when the animal has at least one extremity on the floor/ramp/bay outside the truck. The assessment should be performed as the animals make their way towards the assessor.

When the percentage of slips is less than or equal to 15%, 100 points are obtained.

When the percentage is greater than 15% but lower than 23%, each percentage point above 15% leads 10 points to be subtracted from the overall score up to the minimum number of 20 points (16% is 90 points, 17% is 80 points, 18% is 70 points, 19% is 60 points, 20% is 50 points, 21% is 40 points, 22% is 30 points and 23% is 20 points).

When the percentage is above 23%, 0 points are obtained.

SCORE	ASSESSMENT
100	≤15% of events out of the total number of animals unloaded
90	≤16% of events out of the total number of animals unloaded
80	≤17% of events out of the total number of animals unloaded
70	≤18% of events out of the total number of animals unloaded
60	≤19% of events out of the total number of animals unloaded
50	≤20% of events out of the total number of animals unloaded
40	≤21% of events out of the total number of animals unloaded
30	≤22% of events out of the total number of animals unloaded
20	≤23% of events out of the total number of animals unloaded
0	>23% of events out of the total number of animals unloaded

Falling. Falling is defined as the loss of balance in which one or more parts of the body (other than the hooves) are in contact with floor surface. The measure is assessed as the number of events out of the total number of animals unloaded. This measure is assessed in the slaughterhouse's unloading area, considering the number of falls out of the total number of animals unloaded in a minimum number of two unloadings (minimum 50 animals). This is not assessed in animals that are incapable of moving by themselves.

The unloading area is defined as the area described in the slipping measure. It must be remembered that no event that occurs inside the truck is assessed, and in all cases the assessment begins when the animal has at least one extremity on the floor/ramp/bay outside the truck. The assessment should be performed as the animals make their way towards the assessor.

When the percentage of falls is less than or equal to 5%, 100 points are obtained.

When the percentage is between 5% and 9%, each percentage point above 1% leads 20 points to be subtracted from the overall score up to the minimum number of 20 points (6% is 80 points, 7% is 60 points, 8% is 40 points, 9% is 20 points).

When the percentage is above 9%, 0 points are obtained.

SCORE	ASSESSMENT
100	≤5% of events out of the total number of animals unloaded
80	≤6% of events out of the total number of animals unloaded
60	≤7% of events out of the total number of animals unloaded
40	≤8% of events out of the total number of animals unloaded
20	≤9% of events out of the total number of animals unloaded
0	>9% of events out of the total number of animals unloaded

Slope of the unloading dock. This is defined as the maximum angle formed by the unloading bay, the truck ramp or the sum of both factors until a flat area is reached. The mean value of at least six unloadings is considered and are assessed individually.

When the maximum angle of slope does not exceed 15°, 100 points are obtained. When it exceeds 15° up to a maximum of 20°, 60 points are obtained; if it exceeds 20° up to a maximum of 25°, 20 points are obtained; and if it exceeds 25°, 0 points are obtained.

SCORE	ASSESSMENT
100	≤15° slope
60	≤20° slope
20	≤25° slope
0	>25° slope

Space allowance and bedding material in the truck. This is calculated considering the length and width of each one of the floors of the trucks and the total number of kilograms carried, besides the presence of bedding material for the animals. This measure is assessed in at least six unloadings.

The minimum available space recommended for animal carriage must be equal to or greater than 0.4 m²/animal for those weighing 50 kg, 0.70 m²/animal for those weighing 110 kg, 0.95 m²/animal for those weighing 200 kg, 1.30 m² animal for those weighing 325 kg, 1.60 m² animal for those weighing 550 kg and more than 1.80 m² animal for those weighing more than 700 kg.

When all the unloadings assessed fulfil the aforementioned conditions and sufficient bedding material is available (minimum 10 cm), 100 points are obtained. If a truck does not fulfil the condition of having bedding material or such material is insufficient in a maximum of two trucks, 80 points are obtained; if this occurs in more than two trucks and up to a maximum of four, 60 points are obtained; and if this occurs in more than four trucks, 40 points are obtained.

When the recommended minimum available space values are reduced by more than 20% (animals weighing 50 kg, less than 0.32 m²/animal, animals weighing 110 kg, less than 0.56 m²/animal, animals weighing 200 kg, less than 0.76 m²/animal, animals weighing 325 kg, less than 1.04 m²/animal, animals weighing 550 kg, less than 1.28 m²/animal, animals weighing more than 700 kg, less than 1.44 m²/animal) in a maximum number of two trucks, 20 points are obtained. If this occurs in more than two trucks, 0 points are obtained.

SCORE	ASSESSMENT
100	100% of trucks with bedding material (10 cm) and minimum recommended available space (≥0.4 m ² /50 kg animal, ≥0.70 m ² /110 kg animal, ≥0.95 m ² /200 kg animal, ≥1.30 m ² /325 kg animal, ≥1.60 m ² /550 kg animal, ≥1.80 m ² / >700 kg animal)
80	Available space correct and up to one truck without bedding or up to two with <10 cm
60	Available space correct and more than two and up to four trucks without or with insufficient bedding material
40	Available space correct and more than four trucks without or with insufficient bedding material
20	Up to two trucks with available space reduced by more than 20% (<0.32 m ² /50-kg animal, <0.56 m ² /110-kg animal, <0.76 m ² /200 kg-animal, <1.04 m ² /325-kg animal, <1.28 m ² /550-kg animal, <1.44 m ² / >700 -kg animal)
0	More than two trucks with available space reduced by more than 20%

The measures of the Ease of movement criterion are combined in the following way:

$(0.35 * \text{slips} + 0.35 * \text{falls} + 0.1 * \text{slope of the unloading bay} + 0.2 * \text{available space and bedding material in the truck}) = \text{Ease of movement criterion score.}$

The Comfort around resting, Thermal comfort and Ease of movement criteria are combined in the following way:

$(0.40 * \text{Comfort around resting} + 0.10 * \text{Thermal comfort} + 0.50 * \text{Ease of movement}) = \text{Good housing principle score.}$

2.3 Good health

2.3.1 Absence of injuries

Lameness Lameness describes an abnormality of movement and is most evident when the animal (and so the legs) is in motion. It is caused by reduced ability to use one or more limbs in a normal manner. Lameness can vary in severity from reduced mobility to inability to bear weight. This measure is assessed considering the number of animals with lameness out of the total number of animals unloaded in a minimum number of two unloadings (minimum 50 animals). The animals must be assessed in an area where they walk on a levelled surface, preferably after the unloading ramp, in the area where they are driven into the lairage pens. It is preferable to do this in an area with a minimum length of 3 metres and a maximum length of 10.

An animal is regarded as being lame when it presents an unequal support of its weight in the different legs and/or it has an irregular foot fall. Animals that are unable to move by themselves are not classified as lame, but rather in the measure with the same name in the Absence of disease criterion.

When the percentage of animals with lameness is equal to 0, 100 points are obtained, and if it is less than or equal to 2%, 80 points are obtained; if it is greater than 2% and up to 4%, 60 points are obtained; if it is greater than 4% and up to 6%, 40 points are obtained; if it is greater than 6% and up to 8%, 20 points are obtained; and if it is greater than 8%, 0 points are obtained.

SCORE	ASSESSMENT
100	0%
80	≤2%
60	≤4%
40	≤6%
20	≤8%
0	>8%

Bruises on carcasses. This measure is assessed in the animals' carcasses, preferably between the points on the chain at which the skin is taken from the carcasses and where the carcass is trimmed. A minimum number of 20 carcasses must be assessed.

Bruise is classified as slight (between 2 and 8 cm), medium (between 8 and 16 cm) and heavy (more than 16 cm) according to size; and as superficial (it does not spread beyond the surface muscle) and deep (it affects deeper layers than the surface muscle) depending on its depth. Bruises of less than 2 cm, superficial bruises located in the subcutaneous fat, those caused by shackling and those located on the tail, are not considered.

According to the number, size and depth of the bruises, carcasses may be given three scores: Score of 0, if there are a maximum of 5 slight superficial bruises on the entire carcass and there is no medium or heavy bruise; Score of 1, if there are more than 5 slight superficial bruises, a medium superficial bruise and/or a slight deep bruise; Score of 2, if there is any medium or heavy deep bruise and/or any heavy superficial bruise.

When all the carcasses have a score of 0, 100 points are obtained. If there is a maximum number of 10% of carcasses with a score of 2 and a minimum of 60% with a score of 0, 80 points are obtained.

When there is more than 10% of carcasses and up to 15% with a score of 2 and a minimum of 50% with a score of 0, 60 points are obtained. If there is more than 15% of carcasses and up to 20% with a score of 2 and a minimum of 50% with a score of 0, 40 points are obtained.

When there is more than 20% of carcasses with a score of 2 and a minimum of 50% with a score of 0, 20 points are obtained; otherwise, 0 points are obtained.

SCORE	ASSESSMENT
100	100% of the carcasses with a value of 0
80	≤10% with a value of 2 and ≥60% with a value of 0
60	≤15% with a value of 2 and ≥50% with a value of 0
40	≤20% with a value of 2 and ≥50% with a value of 0
20	>20% with a value of 2 and ≥50% with a value of 0
0	>20% with a value of 2 and <50% with a value of 0

Walls, floors and doors. This includes any wall, fence or surface that may be in contact with the animals from their arrival at the slaughterhouse until they are slaughtered. The floor of the lairage pens is excepted from this measure as it is assessed in another measure of the protocol. They are assessed to ascertain whether they are a demonstrable source of injuries to the animals.

Every element that is a demonstrable source of injuries to the animals leads 10 points to be subtracted from the total score of the Absence of Injuries criterion up to a maximum number of 50 points.

SCORE	ASSESSMENT
0	No element is a demonstrable source of injuries to the animals
-10	One element is a demonstrable source of injuries to the animals
-20	Two elements are a demonstrable source of injuries to the animals
-30	Three elements are a demonstrable source of injuries to the animals
-40	Four elements are a demonstrable source of injuries to the animals
-50	Five elements are a demonstrable source of injuries to the animals

The measures of the Absence of injuries criterion are combined in the following way:

$(0.4 \times \text{lameness} + 0.6 \times \text{bruises on carcasses}) = \text{Absence of injuries criterion score.}$

Points may be subtracted from this score depending on the score obtained in the walls, floors and doors measure.

2.3.2 Absence of disease

Sick animals. This includes any animal which, for whatever reason, is incapable of moving by itself. It is assessed during unloading based on the number of animals in this situation out of the total number of animals unloaded from all the trucks assessed for the other measures.

When no sick animal is observed, 100 points are obtained.

When there is one sick animal, 60 points are obtained; if there are two, it is 40 points; if there are 3, 20 points; and if there are more than 3, 0 points.

SCORE	ASSESSMENT
100	No sick animals
60	One sick animal
40	Two sick animals
20	Three sick animals
0	More than three sick animals

Mortality on arrival. This measure considers the number of animals that arrive dead at the slaughterhouse over the 12 months prior to the day of the assessment, and it is assessed in relation to the total number of animals received over the same period.

When the percentage of mortality is less than 0.01%, 100 points are obtained.

When the percentage of mortality is equal to or greater than 0.01% and does not exceed 0.02%, 60 points are obtained; if it is greater than 0.02% and does not exceed 0.03%, 40 points; if it is greater than 0.03% and does not exceed 0.05%, 20 points are obtained; and if it is greater than 0.05% or the slaughterhouse does not provide the data, 0 points are obtained.

SCORE	ASSESSMENT
100	<0.01%
60	≤0.02%
40	≤0.03%
20	≤0.05%
0	>0.05% or data not provided

Mortality at lairage. This measure considers the number of animals that die naturally (unlike emergency slaughter or euthanasia) in the slaughterhouse's lairage pens over the 12 months prior to the day of the assessment, and it is assessed in relation to the total number of animals received over the same period. The slaughterhouse should make a distinction between animals that die in hospital pens or infirmaries and those that die in the other pens.

When the percentage of mortality is 0%, 100 points are obtained; if it is less than 0.3%, 60 points are obtained; if it is equal to or greater than 0.3% but less than 0.5%, 40 points; if it is equal to or greater than 0.5% but does not exceed 0.8%, 20 points are obtained, and if it is greater than 0.8%, 0 points.

SCORE	ASSESSMENT
100	0%
60	<0.3%
40	<0.5%
20	≥0.5%
0	>0.8% or data not provided

The measures of the Absence of disease criterion are combined in the following way:

$(0.4 * \text{sick animals} + 0.3 * \text{mortality in transit} + 0.3 * \text{mortality during lairage}) = \text{Absence of disease criterion score.}$

2.3.3 Absence of pain induced by management procedures

Management of sick animals. The practices used to manage and house sick animals that require special care and the management of those that need to undergo emergency slaughter are assessed.

Animals with diminished capacity to move should be housed in a hospital pen annexed to the unloading bay, with a minimum available space of 2 m²/animal, with water *ad libitum* and be properly identified (e.g. ear-tag). Similarly, animals that are unable to move by themselves must be killed immediately in the place where they lie, either in the dock area or inside the truck.

When all the previous conditions are met and the animals that are incapable of moving by themselves are slaughtered in the truck, or no kind of the aforementioned animals is recorded, 100 points are obtained. If a slaughter is observed in the dock, 80 points are obtained.

When in a single case animal with diminished mobility have to move a maximum distance of 10 m to reach the hospital pen, 60 points are obtained; if more than one case is observed, 40 points are obtained.

When in a single case animals with diminished mobility are not separated from the rest, when these animals are dragged, shackled or moved by any means over distances greater than 10 m in order to house them in a hospital pen, or if any animal is killed outside the unloading dock or the truck, 20 points are obtained. If more than one case is observed, 0 points are obtained.

SCORE	ASSESSMENT
100	Animals with difficulties are housed in a pen annexed to the dock with a minimum space of 2 m ² and water ad libitum, and animals incapable of moving are slaughtered immediately in the truck.
80	The same, but if the animal is slaughtered in the dock
60	An animal moves to the hospital pen, that is not annexed to the dock with a direct access, but moves 10 m at most.
40	The same as before, but if it occurs with two animals.
20	An animal that should have been separated from the list has not been, or animals are dragged or animals with difficulties are moved more than 10 m from the unloading dock or those that are incapable of moving are slaughtered outside the truck or the dock.
0	The above occurs in more than one animal.

Corneal reflex. This is assessed by touching the animal's cornea with a blunt object. Presence of reflex, which indicates poor stunning, is deemed to exist if the animal closes the stimulated eye. If the eyelid does not close, this is regarded as absence of reflex and denotes good stunning. This measure must be assessed in at least 20 animals. Animals must never be assessed at a single point on the slaughtering chain but rather at several points.

When no animal presents corneal reflex, 100 points are obtained.

When there is a maximum of 5% of animals with presence of corneal reflex, 80 points are obtained; if there is more than 5% and up to 10%, 60 points; if there is more than 10% and up to 15%, 40 points; if there is more than 15% and up to 20%, 20 points; and more than 20%, 0 points.

SCORE	ASSESSMENT
100	0% of animals with presence of corneal reflex
80	≤5% of animals with presence of corneal reflex
60	≤10% of animals with presence of corneal reflex
40	≤15% of animals with presence of corneal reflex
20	≤20% of animals with presence of corneal reflex
0	>20% of animals with presence of corneal reflex

Eyeball rotation. Eyeball rotation is defined as when one or both eyeballs rotate so that the pupil/pupils are partly or completely hidden. The presence of this movement denotes poor stunning. This measure must be assessed in at least 20 animals. Animals must never be assessed at a single point on the slaughtering chain but rather at several points.

When no animal presents eyeball rotation, 100 points are obtained.

When there is a maximum of 5% of animals with presence of eyeball rotation, 80 points are obtained; if there is more than 5% and up to 10%, 60 points; if there is more than 10% and up to 15%, 40 points; if there is more than 15% and up to 20%, 20 points; and more than 20%, 0 points.

SCORE	ASSESSMENT
100	0% of animals with presence of eyeball rotation
80	≤5% of animals with presence of eyeball rotation
60	≤10% of animals with presence of eyeball rotation
40	≤15% of animals with presence of eyeball rotation
20	≤20% of animals with presence of eyeball rotation
0	>20% of animals with presence of eyeball rotation

Spontaneous blinking. Spontaneous blinking is defined as when the animal blinks spontaneously without physical stimulation. The presence of this movement denotes poor stunning. This measure must be assessed in at least 20 animals. Animals must never be assessed at a single point on the slaughtering chain but rather at several points.

When no animal presents spontaneous blinking, 100 points are obtained.

When there is a maximum of 5% of the animals with presence of spontaneous blinking, 60 points are obtained; if there is more than 5% and up to 10%, 20 points; and if there is more than 10%, 0 points.

SCORE	ASSESSMENT
100	0% of animals with presence of spontaneous blinking
60	≤5% of animals with presence of spontaneous blinking
20	>5% of animals with presence of spontaneous blinking
0	>10% of animals with presence of spontaneous blinking

Rhythmic breathing. It is assessed by means of movements of the animals' flank and mouth. If the trachea has been cut, glottis movements are assessed. The animal may begin to breathe immediately after it is stunned or after some time when it is shackled on the slaughter line. If this movement is detected, it denotes poor stunning, if there is a minimum of two breaths. Air filling the lungs at the moment of stunning is often expired right after the animal is stunned, which can be misinterpreted as breathing. Respiratory gasps can also occur, with or without vocalisation, which are of spinal origin and therefore do not indicate recovery. This measure must be assessed in at least 20 animals. Animals must never be assessed at a single point on the slaughtering chain but rather at several points.

When there is no animal with presence of rhythmic breathing, 100 points are obtained.

When there is a maximum of 5% of the animals with presence of rhythmic breathing, 60 points are obtained; if there is more than 5% and up to 10%, 20 points; and if there is more than 10%, 0 points.

SCORE	ASSESSMENT
100	0% of animals with presence of rhythmic breathing
60	≤5% of animals with presence of rhythmic breathing
20	>5% of animals with presence of rhythmic breathing
0	>10% of animals with presence of rhythmic breathing

Righting reflex. This is assessed by means of animal body movements. This is not to be confused with involuntary contractions of the animal's hindquarters following bolt stunning. In order to appreciate the difference, the animal's neck must be observed. If the animal moves its neck but the body is not relaxed (characteristic arching), this denotes a righting reflex. The detection of a righting reflex indicates that the animal has not been properly stunned. This measure must be assessed in at least 20 animals. Animals must never be assessed at a single point on the slaughtering chain but rather at several points.

When no animal presents righting reflex, 100 points are obtained.

When there is a maximum of 5% of the animals with presence of righting reflex, 60 points are obtained; if there is more than 5% and up to 10%, 20 points; and if there is more than 10%, 0 points.

SCORE	ASSESSMENT
100	0% of animals with presence of righting reflex.
60	≤5% of animals with presence of righting reflex.
20	>5% of animals with presence of righting reflex.
0	>10% of animals with presence of righting reflex.

Re-stunning. This assesses the slaughterhouse personnel's performance in the event of signs of stun failure. When signs of stun failure are observed around bleeding (rhythmic breathing, righting reflex and/or vocalisations), the animals must be re-stunned. Re-stunning must be performed within five seconds of the detection of any of the three aforementioned stun failure signs so that effective stunning is achieved. This measure must be assessed in at least 20 animals. Animals must never be assessed at a single point on the slaughtering chain but rather at several points. Every animal that is not properly re-stunned leads points to be subtracted from the Absence of pain induced by management procedures criterion.

For every animal effectively re-stunned, but after more than five seconds have elapsed as of the detection of any of the aforementioned three signs of stun failure, five (5) points are subtracted.

Twenty (20) points are subtracted for every animal ineffectively re-stunned or not re-stunned.

SCORE	ASSESSMENT
0	The animals are re-stunned effectively within 5 seconds
-5	One effective re-stun >5 seconds
-10	Two effective re-stuns >5 seconds
-15	Three effective re-stuns >5 seconds
-20	Animal not re-stunned or ineffectively re-stunned or four effective re-stuns >5 seconds
-40	Two animals not re-stunned or ineffectively re-stunned or eight animals effectively re-stunned >5 seconds
-60	Three animals not re-stunned or ineffectively re-stunned or twelve animals effectively re-stunned >5 seconds
-80	Four animals not re-stunned or ineffectively re-stunned or sixteen animals effectively re-stunned >5 seconds
-100	Five or more animals not re-stunned or ineffectively re-stunned or 20 or more animals effectively re-stunned >5 seconds

The measures of the Absence of pain induced by management procedures criterion are combined in the following way:

$(0.2 * \text{management of sick animals} + 0.1 * \text{corneal reflex} + 0.1 * \text{eyeball rotation} + 0.2 * \text{spontaneous blinking} + 0.2 * \text{rhythmic breathing} + 0.2 * \text{righting reflex}) = \text{Absence of pain induced by management procedures criterion score.}$

Points may be subtracted from this score depending on the score obtained in the re-stun measure.

The Absence of pain, Absence of disease and Absence of pain induced by management procedures criteria are combined in the following way:

$(0.30 * \text{Absence of injuries} + 0.30 * \text{Absence of disease} + 0.40 * \text{Absence of pain induced by management procedures}) = \text{Good health principle score.}$

2.4 Appropriate behaviour

2.4.1 Good human-animal relationship

Vocalisations in driving into the stunning area. Vocalisations are assessed on the basis of the animals' bellowing while they are driven into the stunning area, if a direct relationship between this bellowing and a factor that may have induced a response of fear or pain in the animal due to a previous contact with the operator can be identified. A minimum number of 20 animals must be assessed while they are driven into the stunning area for a maximum distance of 20 metres. The measure takes the total number of bellowing related to the total number of animals assessed into account.

When there is no animal vocalising, 100 points are obtained.

When there is a maximum of 15% of animals with a maximum of 5 vocalisations, 80 points are obtained; if there is more than 15% and up to 20%, 60 points; if there is more than 20% and up to 25%, 50 points; and if there is more than 25% and up to 30%, 40 points.

When there is more than 30% and up to 50% of animals with a maximum of 5 vocalisations and/or up to 10% with more than 5 vocalisations, 20 points are obtained. In any other case, 0 points are obtained.

SCORE	ASSESSMENT
100	0% of the animals with up to 5 vocalisations
80	≤15% of the animals with up to 5 vocalisations
60	≤20% of the animals with up to 5 vocalisations
50	≤25% of the animals with up to 5 vocalisations
40	≤30% of the animals with up to 5 vocalisations
20	≤50% of the animals with up to 5 vocalisations and/or ≤10% animals with more than 5 vocalisations
0	≤50% of the animals with up to 5 vocalisations and more than 10% animals with more than 5 vocalisations

Coercion. Coercion is defined as the use of electric prod, plastic hoses, rattles, flappers or other items (including the operator's hand) to force an animal to move, if they come into contact with the animals' body. A minimum number of 20 animals must be assessed while they are driven into the stunning area for a maximum distance of 20 metres.

When the percentage of animals with between one and three coercions or with the use of an electric prod is less than 10%, 100 points are obtained; if it is equal to or greater than 10% but lower than 20%, 80 points are obtained.

When the percentage of animals with between one and three coercions or with the use of an electric prod is equal to or greater than 20% but less than 35%, between 40 and 60 points are obtained, depending on the animals with four or five coercions or two uses of electric prod. If the percentage of animals with four or five coercions or two uses of electric prod is 0%, 60 points are obtained; if the percentage is less than 10%, 50 points; if it is equal to or greater than 10% but less than 20%, 40 points.

When the percentage of animals with between one and three coercions or with the use of an electric prod is equal to or greater than 35% and up to 50%, the percentage of animals with four or five coercions or two uses of electric prod is equal to or greater than 20% and up to 30%, or the percentage of animals with more than five coercions or more than two uses of electric prod is less than or equal to 5%, 20 points are obtained.

When the percentage of animals with between one and three coercions or with the use of an electric prod is greater than 50%, the percentage of animals with four or five coercions or two uses of electric prod is greater than 30% and the percentage of animals with more than five coercions or more than two uses of electric prod is greater than 5%, 0 points are obtained.

Zero (0) points are also obtained when an electric prod of more than 50 V is used, even if only once, or when any prod is used with animals that do not have sufficient room to move forward, if the discharges last more than one second or are repeated, are not conveniently spaced out or if they are applied to areas other than the hindquarter muscles.

SCORE	ASSESSMENT
100	<10% of the animals with 1 to 3 coercions or 1 use of electric prod
80	<20% of the animals with 1 to 3 coercions or 1 use of electric prod
60	<35% of the animals with 1 to 3 coercions or 1 use of electric prod, 0% with 4-5 coercions or up to 2 uses of electric prod
50	<35% of the animals with 1 to 3 coercions or 1 use of electric prod, <10% with 4-5 coercions or up to 2 uses of electric prod
40	<35% of the animals with 1 to 3 coercions or 1 use of electric prod, <20% with 4-5 coercions or up to 2 uses of electric prod
20	≥35% and ≤50% of the animals with 1 to 3 coercions or 1 use of electric prod, ≥20% and ≤30% with 4-5 coercions and up to 2 uses of electric prod or ≤5% with more than 5 coercions or more than 2 uses of electric prod
0	>50% of the animals with 1 to 3 coercions or 1 use of electric prod, >30% with 4-5 coercions and up to 2 uses of electric prod or >5% with more than 5 coercions or more than 2 uses of electric prod or application of a 5V electric prod or apply for more than one second or in animals incapable of moving forward

Material to handle the animals. The material used by both the slaughterhouse's personnel and carriers to move the animals is assessed. This is assessed in the entire area for driving the animals except for the area for driving them into the stun system.

When any rigid material (for example plastic) is used, whether it makes a noise or not, that does not come into direct contact with the animals, 100 points are obtained.

When a single animal is struck with the hands, 60 points are obtained; if this is observed in more than one animal, 40 points.

When any of the aforementioned materials comes into contact with a single animal, 20 points are obtained; if this is observed in more than one animal, 0 points. Zero (0) points are also obtained when an electric prod of more than 50 V is used, even if only once, or when any prod is used with animals that do not have sufficient room to move forward, if the discharges last

more than one second or are repeated, are not conveniently spaced out or if they are applied to areas other than the hindquarter muscles.

SCORE	ASSESSMENT
100	There is no material in contact with the animals
60	One animal struck with the hands
40	More than one animal struck with the hands
20	One animal is touched with a material other than the hands
0	More than one animal is touched with a material other than the hands

Stops of more than 2 minutes. The action taken by the slaughterhouse personnel in the event of a slaughtering chain stoppage lasting more than two minutes (scheduled or not) is assessed. Scheduled stoppages must be performed when there are no animals in the area where they are driven towards stunning or in the actual stunning box. In the case of unscheduled stoppages, the animals waiting to enter the stunning system should be allowed to do so as a group and should not be obliged to make any type of movement, and any animal inside the stunning box should be allowed to exit it. This measure is evaluated whenever the slaughtering chain is stopped. In such cases, vocalisations will not be assessed, although coercion is.

If any situation other than the ones described above occurs, 20 points will be subtracted from the Absence of pain induced by the management procedure criterion for each time that it occurs.

SCORE	ASSESSMENT
0	When, in a scheduled stoppage, there are no animals in the area where they are driven towards stunning or in the actual stunning box. When, in unscheduled stoppages, the animals waiting to enter the stunning system are allowed to do so as a group, are not obliged to make any type of movement, and any animal inside the stunning box is allowed to exit it.
-20	This does not happen once
-40	This does not happen twice
-60	This does not happen three times
-80	This does not happen four times
-100	This does not happen five times

Training in animal welfare. All people who come into contact with the animals must have received animal welfare training.

When there is an animal welfare officer with training (a certificate of competency and/or a specific course in animal welfare superior to the rest of the workers), the rest of the slaughterhouse personnel that deal with animals have done a course in animal welfare (which may be in-company) and the slaughterhouse has a certificate of the course in animal welfare by the carriers evaluated during unloading, 100 points are obtained. If in a single case a carrier or a slaughterhouse worker does not have training in animal welfare, 80 points are obtained.

When two carriers do not have a certificate of training in animal welfare, 60 points are obtained; if this occurs in three carriers, 50 points; if it occurs in four or more carriers, 40 points. If the animal welfare officer does not have the specific animal welfare training described in the preceding paragraph but holds a degree or diploma as a vet, 60 points are obtained.

When two slaughterhouse workers in contact with the animals do not have training, 20 points are obtained; if more than two workers or the actual animal welfare officer do(es) not have specific training or a degree or diploma as a vet, 0 points are obtained.

SCORE	ASSESSMENT
100	The slaughterhouse has a copy of the certificate of competency of all the carriers evaluated during unloading, all the workers are trained (this may be in-company) and the animal welfare officer has a certificate of competency and/or has done a specific course in animal welfare befitting their responsibilities
80	A slaughterhouse worker does not have training or a carrier's training certificate is not available
60	Training certificates for two carriers are not available or the slaughterhouse's animal welfare officer has not done a specific course in animal welfare befitting their responsibilities, but is a veterinarian
50	Training certificates for three carriers are not available
40	Training certificates are not available for four or more carriers
20	Two slaughterhouse workers do not have training in animal welfare
0	More than two slaughterhouse workers do not have training or the slaughterhouse's animal welfare officer does not have specific training or a degree or diploma as a vet

The measures of the Good human-animal relationship criterion are combined in the following way:

$(0.35 \times \text{vocalisations in the area where the animals are driven into stunning} + 0.35 \times \text{coercion} + 0.10 \times \text{material for moving the animals} + 0.20 \times \text{animal welfare training}) = \text{Good human-animal relationship criterion score.}$

Points may be subtracted from this score depending on the score obtained in the stoppage of more than two minutes.

2.4.2 Positive emotional state

Freezing. An animal is regarded as a "freeze" if, despite having free space in front of it, it refuses to move forwards or backwards for a minimum of 4 seconds after being touched or coerced by the handler. If the animal takes more than one step and stops again or moves backwards, a 'freeze' is recorded again when a new attempt at driving is made and the animal does not move for a minimum of 4 seconds. This measure is assessed in the slaughterhouse's unloading area, considering the number of events out of the total number of animals unloaded in a minimum number of two unloadings (minimum 50 animals). This is not assessed in animals that are incapable of moving by themselves.

The unloading area is defined as the area described in the slipping measure. In all cases, the assessment begins when the animal has at least one extremity on the floor/ramp/bay outside the truck (remembering that no event that occurs inside the truck is assessed).

When no animal presents a freeze event, 100 points are obtained.

When the percentage of events is less than 6%, 80 points are obtained; if it is equal to or greater than 6% but less than 8%, 60 points; if it is equal to or greater than 8% but less than 10%, 40 points; if it is equal to or greater than 10% but less than 14%, 20 points; if it is equal to or greater than 14%, 0 points.

SCORE	ASSESSMENT
100	0% of events out of the total number of animals
80	<6% of events out of the total number of animals
60	<8% of events out of the total number of animals
40	<10% of events out of the total number of animals
20	<14% of events out of the total number of animals
0	≥14% of events out of the total number of animals

Trying to turn back. An animal is regarded as trying to turn, either by itself or in response to handling, when it unsuccessfully attempts to turn round. This is not the case if the animal only turns its head. This measure is assessed in the slaughterhouse's unloading area, considering the number of events out of the total number of animals unloaded in a minimum number of two unloadings (minimum 50 animals). This is not assessed in animals that are incapable of moving by themselves.

The unloading area is defined as the area described in the slipping measure. In all cases, the assessment begins when the animal has at least one extremity on the floor/ramp/dock outside the truck (remembering that no event that occurs inside the truck is assessed).

When the percentage of events is less than 10%, 100 points are obtained; if it is equal to or greater than 10% but less than 15%, 80 points; when it is equal to or greater than 15% but less than 20%, 60 points; if it is equal to or greater than 20% but less than 25%, 40 points; if it is equal to or greater than 25% but less than 35%, 20 points; if it is equal to or greater than 35%, 0 points.

SCORE	ASSESSMENT
100	<10% of events out of the total number of animals
80	<15% of events out of the total number of animals
60	<20% of events out of the total number of animals
40	<25% of events out of the total number of animals
20	<35% of events out of the total number of animals
0	≥35% of events out of the total number of animals

Turning back. An animal is regarded as having turning back, either by itself or in response to handling, when it changes direction away from the natural exit from the truck towards the lairage pens. If the animal turns again to head towards the lairage pens, this is not regarded as turning around. This measure is assessed in the slaughterhouse's unloading area, considering the number of events out of the total number of animals unloaded in a minimum number of two unloadings (minimum 50 animals). This is not assessed in animals that are incapable of moving by themselves.

The unloading area is defined as the area described in the slipping measure. In all cases, the assessment begins when the animal has at least one extremity on the floor/ramp/dock outside the truck (remembering that no event that occurs inside the truck is assessed).

When no animal presents a turning-around event, 100 points are obtained.

When the percentage of events is less than 8%, 80 points are obtained; if it is equal to or greater than 8% but less than 12%, 60 points; if it is equal to or greater than 12% but less than 15%, 40 points; if it is equal to or greater than 15% but less than 25%, 20 points; if it is equal to or greater than 25%, 0 points.

SCORE	ASSESSMENT
100	0% of events out of the total number of animals
80	<8% of events out of the total number of animals
60	<12% of events out of the total number of animals
40	<15% of events out of the total number of animals
20	<25% of events out of the total number of animals
0	≥25% of events out of the total number of animals

Moving backwards. Moving backwards is defined as when the animal moves backwards, either by itself or as a reaction to handling. When an animal takes a few steps backwards to keep its balance or changes position in relation to other animals without crowding it is not considered as moving backwards. This measure is assessed in the slaughterhouse's unloading area, considering the number of events out of the total number of animals unloaded in a minimum number of two unloadings (minimum 50 animals). This is not assessed in animals that are incapable of moving by themselves.

The unloading area is defined as the area described in the slipping measure. In all cases, the assessment begins when the animal has at least one extremity on the floor/ramp/dock outside the truck (remembering that no event that occurs inside the truck is assessed).

When no animal presents a moving backwards event, 100 points are obtained.

When the percentage of events is less than 8%, 80 points are obtained; if it is equal to or greater than 8% but less than 12%, 60 points; if it is equal to or greater than 12% but less than 15%, 40 points; if it is equal to or greater than 15% but less than 25%, 20 points; if it is equal to or greater than 25%, 0 points.

SCORE	ASSESSMENT
100	0% of events out of the total number of animals
80	<8% of events out of the total number of animals
60	<12% of events out of the total number of animals
40	<15% of events out of the total number of animals
20	<25% of events out of the total number of animals
0	≥25% of events out of the total number of animals

Struggling in the stunning box. Struggling is defined as continuous struggling/panicking movements of escape, such as slipping, forward and backward movements and body trembling, lasting for more than 3 seconds, with no breaks. It is assessed when the animal is in the stunning box and the rear box gate is closed. The number of events per animal and the number of animals presenting struggling movements out of the total number of animals evaluated is assessed. This measure must be assessed in at least 20 animals.

When no animal presents a struggling event, 100 points are obtained.

When the percentage of animals with a single struggling event is less than 10%, 80 points are obtained.

When the percentage of animals with a struggling event is equal to or greater than 10% but less than 15%, and the percentage of animals presenting between one and five struggling events is less than 5%, 60 points are obtained. When the percentage of animals with a struggling event is equal to or greater than 15% but less than 20%, and the percentage of animals presenting between one and five struggling events is equal to or greater than 5% but less than 10%, 40 points are obtained.

When the percentage of animals with a struggling event is equal to or greater than 20% but less than 30%, the percentage of animals presenting between one and five struggling events is equal to or greater than 10% but less than 20%, or the percentage of animals with at least five struggling events is less than or equal to 10%, 20 points are obtained.

When the percentage of animals with a struggling event is equal to or greater than 30%, the percentage of animals presenting between one and five struggling events is equal to or greater than 20%, or the percentage of animals with at least five struggling events is greater than 5%, 0 points are obtained.

SCORE	ASSESSMENT
100	0% of animals with a struggling event
80	<10% of animals with an event
60	<15% of animals with one and <5% with >1 and <5 events
40	<20% of animals with one and <10% with >1 and <5 events
20	<30% of animals with one and <20% with >1 and <5 events or ≤5% of animals with ≥5 events
0	≥30% of animals with one and ≥20% with >1 and <5 events> or >5% of animals with ≥5 events

Kicking in the stunning box. Kicking is defined as hind-leg kicking by the animals in the stunning box. It is assessed when the animal is in the stun box and the rear box gate is closed. The number of events per animal and the number of animals vocalising in the box out of the total number of animals evaluated is assessed. This measure must be assessed in at least 20 animals.

When there is no animal kicking the box, 100 points are obtained.

When the percentage of animals kicking the box is less than 10%, 80 points are obtained.

When the percentage of animals with only one kick is equal to or greater than 10% but less than 15%, and the percentage of animals presenting between one and five kicks is less than 5%, 60 points are obtained. When the percentage of animals with only one kick is equal to or greater than 15% but less than 20%, and the percentage of animals presenting between one and five kicks is equal to or greater than 5% but less than 10%, 40 points are obtained.

When the percentage of animals with only one kick is equal to or greater than 20% but less than 30%, the percentage of animals presenting between one and five kicks is equal to or greater than 10% but less than 20%, or the percentage of animals with at least five kicks is less than or equal to 5%, 20 points are obtained.

When the percentage of animals with only one kick is equal to or greater than 30%, the percentage of animals presenting between one and five kicks is equal to or greater than 20%, or the percentage of animals with at least five kicks is greater than 5%, 0 points are obtained.

SCORE	ASSESSMENT
100	0% of animals with a kick event
80	<10% of animals with a kick event
60	<15% of animals with one and <5% with >1 and <5 kick events
40	<20% of animals with one and <10% with >1 and <5 kick events
20	<30% of animals with one and <20% with >1 and <5 events> or <5% of animals with ≥5 kick events
0	≥30% of animals with one and ≥20% with >1 and <5 events> or >5% of animals with ≥5 kick events

Jumping in the stunning box. Jumping in the stunning box is defined as a sudden and extreme startle flight reaction. It is assessed when the animal is in the stunning box and the rear box gate is closed. The number of events per animal and the number of animals vocalising in the box out of the total number of animals evaluated is assessed. This measure must be assessed in at least 20 animals.

When there is no animal jumping in the box, 100 points are obtained.

When the percentage of animals jumping only once is less than 10%, 80 points are obtained.

When the percentage of animals jumping only once is equal to or greater than 10% but less than 15%, and the percentage of animals presenting between one and five jumps is less than 5%, 60 points are obtained. When the percentage of animals jumping only once is equal to or greater

than 15% but less than 20%, and the percentage of animals presenting between one and five jumps is equal to or greater than 5% but less than 10%, 40 points are obtained.

When the percentage of animals jumping only once is equal to or greater than 20% but less than 30%, the percentage of animals presenting between one and five jumps is equal to or greater than 10% but less than 20%, or the percentage of animals with at least five jumps is less than or equal to 5%, 20 points are obtained.

When the percentage of animals jumping only once is equal to or greater than 30%, the percentage of animals presenting between one and five jumps is equal to or greater than 20%, or the percentage of animals with at least five jumps is greater than 5%, 0 points are obtained.

SCORE	ASSESSMENT
100	0% of animals with a jump event
80	<10% of animals with more than one jump event
60	<15% of animals with one and <5% with >1 and <5 jump events
40	<20% of animals with one and <10% with >1 and <5 jump events
20	<30% of animals with one and <20% with >1 and <5 events> or ≤5% of animals with ≥5 jump events
0	≥30% of animals with one and ≥20% with >1 and <5 events> or >5% of animals with ≥5 jump events

Vocalisations in the stunning box. Vocalisations are assessed on the basis of the animals' bellowing. It is assessed when the animal is in the stunning box and the rear box gate is closed. The number of events per animal and the number of animals vocalising in the box out of the total number of animals evaluated is assessed. This measure must be assessed in at least 20 animals.

When there is no animal vocalising in the box, 100 points are obtained.

When the percentage of animals vocalising only once is less than 10%, 80 points are obtained.

When the percentage of animals vocalising only once is equal to or greater than 10% but less than 15%, and the percentage of animals presenting between one and five vocalisations is less than 5%, 60 points are obtained. When the percentage of animals vocalising only once is equal to or greater than 15% but less than 20%, and the percentage of animals presenting between one and five vocalisations is equal to or greater than is greater than 5% but less than 10%, 40 points are obtained.

When the percentage of animals vocalising only once is equal to or greater than 20% but less than 30%, the percentage of animals presenting between one and five vocalisations is equal to or greater than 10% but less than 20%, or the percentage of animals with at least five vocalisations is less than or equal to 5%, 20 points are obtained.

When the percentage of animals vocalising only once is equal to or greater than 30%, the percentage of animals presenting between one and five vocalisations is equal to or greater than

20%, or the percentage of animals with at least five vocalisations is greater than 5%, 0 points are obtained.

SCORE	ASSESSMENT
100	0% of animals with a vocalisation event
80	<10% of animals with more than one vocalisation event
60	<15% of animals with one and <5% with >1 and <5 vocalisation events
40	<20% of animals with one and <10% with >1 and <5 vocalisation events
20	<30% of animals with one and <20% with >1 and <5 events> or ≤5% of animals with ≥5 vocalisation events
0	≥30% of animals with one and ≥20% with >1 and <5 events> or >5% of animals with ≥5 vocalisation events

The measures of the Positive emotional state are combined in the following way:

$(0.20 \cdot \text{freeze} + 0.10 \cdot \text{trying to turn} + 0.10 \cdot \text{turning around} + 0.10 \cdot \text{moving backwards} + 0.20 \cdot \text{struggling} + 0.10 \cdot \text{kicks in the box} + 0.10 \cdot \text{jumps in the box} + 0.10 \cdot \text{vocalisations in the box})$
= Positive emotional state criterion score.

The Good human-animal relationship and Positive emotional state criteria are combined in the following way:

$(0.50 \cdot \text{Good human-animal relationship} + 0.50 \cdot \text{Positive emotional state})$ = Appropriate behaviour principle score

The four principles are combined as follows:

$(0.15 \cdot \text{Good feeding} + 0.20 \cdot \text{Good housing} + 0.25 \cdot \text{Good health} + 0.40 \cdot \text{Appropriate behaviour})$ = Overall score

NOTE: Discrepancies or differences created in the translation are not binding and have no legal effect for compliance or enforcement purposes. If there is any doubt about the interpretation of this document, the original Spanish version always takes precedence.