

SNI

Indonesia National Standard

Halal slaughtering on ruminant

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Table of Content

Table of Content	i
Foreword	ii
1 Scope	1
2 Normative References.....	1
3 Terminology and Definition	1
4 The Requirement	4
4.1 The Organization	4
4.2 Procurement of live ruminant animals	7
4.3 Transportation of live ruminant animals	7
4.4 Pre Slaughtering	8
4.5 Slaughtering	11
4.6 Post Slaughtering Handling	13
4.7 Packaging and Labeling	14
4.8 Storage.....	14
4.9 Transportation	15
4.10 The Facilities	15
4.11 Handling of non-halal product	15
4.12 Traceability	15
Appendix A(informative) A guidance on stunning of non-penetrative mechanical method	18
Appendix B (informative) Images of stunning and slaughtering	17
Bibliography	20

Foreword

The Indonesia National Standard of Halal slaughtering for ruminants are arranged to provide assurance of the *halal-ness* of ruminants slaughtering product which is consumed by the community, so that comfort, safety, security and certainty of the availability of halal products for the community in consuming and using the products are achieved, as well as to improve the added values for the business in producing and selling the halal meats.

The SNI is drafted by the Technical Committee 03-08 Halal, which has been discussed through technical meeting and agreed upon in the consensus meeting on September 15, 2017 in Jakarta. The meeting was attended by the representatives of the consumers, producers, experts, and other related institutions.

This standard has been through the processes of polling on February 12, 2018 to April 13, 2018 with the final result of RASNI (final draft of the SNI).

To avoid mistakes in the use of this document, it is recommended for the standard users to use SNI documents that are printed with colored ink.

It should be noted that the possibility of some elements of this standard document can be a patent. The National Standardization Agency is not responsible for identification of one or all existing patents.

Halal slaughtering for ruminants

1 Scope

This standard determines the requirement and procedure in the management of procurement, pre-slaughtering, slaughtering, post-slaughtering, packaging, labeling, storage, transportation, facility, hygiene, and sanitation in the production process of halal ruminants including by-products, in the ruminants slaughtering house.

The organization of Slaughtering House (RPH) as referred to in this SNI doesn't include the Halal Slaughtering Place (TPH)

2 Normative References

The following document is an integral part of using this document. For the dated reference, only the edition cited is used. For undated references, the latest edition of the referenced document (including amendments) is used.

SNI 99001 *Halal management system*

3 Terminology and Definition

For the purpose of this document use, the following terms and definitions apply.

3.1

Slaughtering house (RPH)

A complex of buildings with specific design and construction that fulfills specific technical and hygiene requirements and is used as a place to slaughter animals, including public consumption ruminants.

3.2

Ruminant animals

Ruminants animals that consists of large ruminants such as cattle and buffalo, and small ruminants such as goat and sheep.

3.3

carcass

parts of the body of healthy ruminants that have been slaughtered in a halal manner, skinned, offal removed, separated from the head, legs starting from the tarsus/carpus down, reproductive organs and udder, tail and excess fat, can be in the form of hot carcass, fresh chilled (chilled carcass) or frozen carcass.

3.4

meat

part of the skeletal muscle carcass that is common, safe and fit for human consumption, consists of pieces of bone meat, boneless meat, and variety of meat, in the form of fresh meat, frozen meat, or processed meat.

3.5

fresh meat

unprocessed meat and or not added with any ingredients.

3.6

chilled fresh meat

meat that undergoes a cooling process after slaughtering, so the inner temperature of the meat is 0°C and 4°C

3.7

frozen meat

fresh meat that has undergone the freezing process in a blast freezer with a minimum internal temperature of -18°C.

3.8

Variety meats, fancy meats, co-products

parts other than carcass of healthy ruminant animal that has been slaughtered in a halal manner, consisting of tongue, tail, legs and lips which are common, safe and fit for human consumption.

3.9

edible offal

the contents of the abdominal and thoracic cavities of ruminant animals that are slaughtered in a halal manner and correctly so that it is safe, common, and fit for human consumption can be in the form of chilled or frozen offal.

3.10**ante-mortem inspection**

Inspection of ruminant animal health before slaughtering that is conducted by the authorized inspection personnel.

3.11**post-mortem inspection**

health inspection of offal and carcass ruminant animal after slaughtering that is conducted by the authorized inspection personnel.

3.12**halal butcher**

A person who slaughters ruminant animal and has fulfilled regulatory requirements.

3.13**halal supervisor**

A person who is responsible for *halal-ness* of ruminant animal slaughtering process.

3.14**Organization**

Ruminants Slaughtering House.

3.15**slaughtering**

an activity to kill animals till they reach the perfect death (system downtime cardiovascular) by way of butchering that refers to the animal welfare rule and the Shari'ah Islamic religion.

3.16**hygiene**

all efforts that are related to the health problem, as well as various efforts to maintain or improve health.

3.17**sanitation**

a preventive effort against the possibility of growth and reproduction of rotting microorganisms and pathogens in food, beverages, equipment and building that can damage animal-based food and jeopardize the human health.

3.18

Veterinary Control Number (Establishment Number)

certificate as legal written evidence that hygiene and sanitation requirements are fulfilled as a pre requisite for the food safety assurance system in the animal-based food business unit.

3.19

dirty area

areas with high levels of biological, chemical and physical pollution

3.20

clean area

areas with low levels of biological, chemical and physical pollution

3.21

disinfection

application of chemical and / or physical measures to reduce / eliminate microorganism

3.22

collection cage

a cage used to accommodate slaughtered animals before slaughtering and a place for ante-mortem inspection

3.23

restraining box

a box that its main function is to reduce animal movement before is slaughtered and facilitate slaughtering.

3.24

death of ruminant animals

complete cessation of the vital functions of the body permanently. Characterized, among others, by the absence of corneal reflex, respiration, and heart rates.

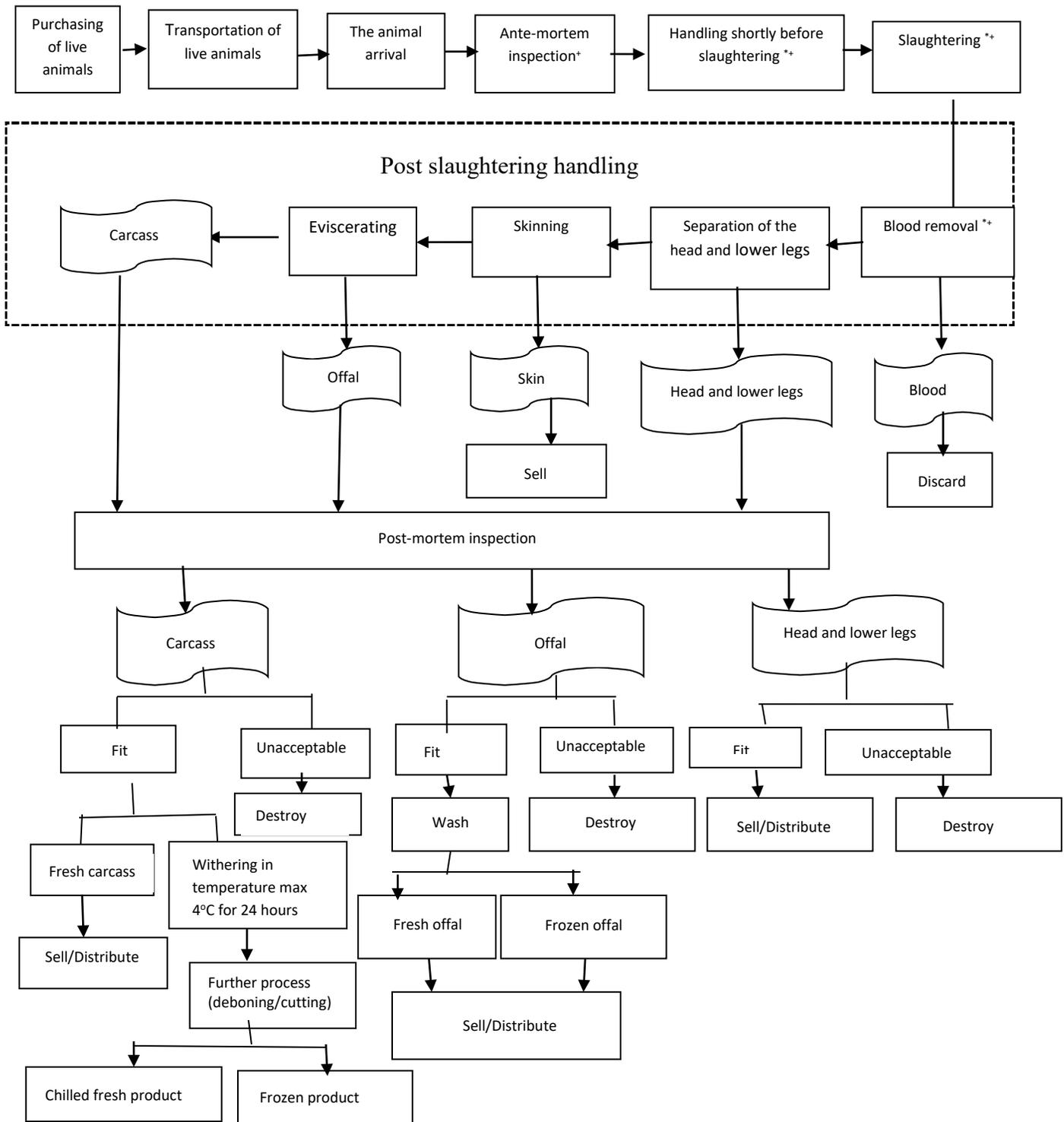
4 The Requirements

4.1 The Organization

4.1.1 The Organization must implement SNI 99001 on Halal management system

- 4.1.2 The Organization must have a commitment in implementing halal assurance system in each step of the process, which includes procurement, receiving, pre-slaughtering, slaughtering, post-slaughtering, packaging, labeling, storage, transportation, facilities, hygiene and sanitation in process of halal ruminant meat production including by-products, in ruminant slaughtering houses.
- 4.1.3 The Organization must ensure that the location, building, human resource, and facility/equipment of slaughtering process are designed for ruminant animals' halal slaughtering and oblige to be separated from the location, building, human resources and slaughtering facility/equipment which are not halal according to the legislation.
- 4.1.4 The Organization must ensure their procedure on handling of dead ruminant animals and ruminant animals carcass that do not fulfill halal slaughtering are not mixed in the halal product chain.
- 4.1.5 The Organization must understand and ensure the halal critical point in the process flow of ruminant animals slaughtering for the purpose of halal assurance, quality control, and traceability.
- 4.1.6 The Organization must provide a place of worship for Muslims.

The flow of halal slaughtering process at ruminant animals slaughtering house, in general, can be seen in the following diagram:



Note:

* Critical point of *halalness*

+ Inspection

Figure 1 – Flowchart of ruminant slaughtering process

4.2 Procurement of live ruminant animals

4.2.1 The Organization should determine the farm requirement and/or ruminant animal collector in accordance with the legislation. The ruminant animal collector can be individual.

NOTE The minimum requirement that must be fulfilled includes: (a) production/cage capacity, (b) biosecurity application and ruminant animal health status, (c) type and source of feed, including feed additives, and (d) the use of drugs and vaccines.

4.2.2 The Organization must have a list and document the information on the farm and/or the collector that supplies ruminant animals. The Organization must ensure that ruminant animals have a veterinary certificate/animal health certificate (SKKH) and especially for large female ruminants, it is equipped with a reproductive status certificate (SKSR) as required in the legislation.

4.2.3 The Organization must ensure that the feed which is given to ruminant animal fulfills the halal requirement in accordance with the legislation. The ruminant animal that is allowed to be slaughtered is the one which is fed except with pork and its derivatives.

4.2.4 The animal that is slaughtered is the ruminant animal that is allowed to be eaten (halal).

4.3 Transportation of live ruminant animals

4.3.1 The Organization must ensure that the transportation of ruminant animal must fulfill animal welfare aspect and quality in accordance with the legislation.

4.3.2 The Organization should ensure the ruminant animal that is transported is in healthy condition which is proven by the relevant document.

4.3.3 The Organization must ensure that the transportation equipment which is in direct contact with specific ruminant animal is dedicated for transporting halal animal and should not be used interchangeably with pig.

4.3.4 The means of transportation that are in direct contact with ruminants and have been used to transport pigs must be purified according to Islamic law and after that it cannot be used for transporting pigs.

4.3.5 The Organization must ensure that prior to be used, the transportation equipment which is in direct contact with ruminant animal is in good sanitary condition.

NOTE The transportation equipment that is referred to in this standard is the transport equipment which carries ruminant animal to the slaughtering house.

4.4 Pre-Slaughtering

4.4.1 Receiving of live ruminant animal

4.4.1.1 The Organization must have a ruminant animal dropping facility in accordance with the legislation.

4.4.1.2 The Organization must have adequate place and facility for temporary shelter before the ruminant animal is slaughtered in accordance with the legislation.

4.4.1.3 The Organization must ensure that the receiving area is clean before the live ruminant animal arrival.

4.4.1.4 The Organization must ensure that prior to ruminant animal dropping process, all of completed documents: veterinary certificate/animal health certificate (SKKH) and specifically for female large ruminant animals completed with the reproduction status certificate have been fulfilled.

4.4.1.5 The Organization must ensure that there is handling/treatment to prevent stressed ruminant animal and indication of illness during the dropping process until at the temporary collective cage.

4.4.1.6 The Organization must ensure that ruminants can eat, drink and rest freely while in the temporary collective cage.

4.4.1.7 The organization must ensure that ruminants are slaughtered after they have been rested for at least 48 hours after arrival and that they are properly treated during the resting process.

4.4.1.8 The Organization must ensure that all of received ruminant animals are checked visually by the competent personnel to ensure that ruminant animals are in healthy condition.

4.4.1.9 The Organization must document the number and weight of all the received ruminant animals, arrival time, the farm name of live ruminant animals, and the personnel that is assigned to do receiving.

4.4.1.10 The Organization must ensure and have the handling documentation and procedure of ruminant animals that are illness or dead.

4.4.1.11 The Organization must have an isolation cage to collective ruminant animals that are illness or need special treatments prior to slaughtering process.

4.4.1.12 The Organization must ensure and have the procedure to handle ruminant animals that are permanently injured during the dropping phase of ruminant animals.

4.4.2 Ante-mortem Inspection

4.4.2.1 The Organization must determine the procedure of ante-mortem inspection and ensure that before the slaughtering process the ante-mortem inspection has been conducted to the ruminant animal that will be slaughtered.

4.4.2.2 The Organization must have personnel who has a competence in the field of veterinary medicine and/or veterinary paramedic to conduct ante-mortem inspection in accordance with the legislation.

4.4.2.3 The Organization must ensure that an ante-mortem inspection is conducted at least 24 hours before ruminant animals are slaughtered.

4.4.2.4 The Organization must ensure that the procedure and ante-mortem inspection result are in accordance with the legislation.

4.4.2.6 The Organization must have a record of pre slaughtering, including a record of the dead animals before being slaughtered (if any) that must be kept and maintained.

4.4.3 Handling shortly before slaughtering

4.4.3.1 The objective of the handling shortly before slaughtering is to ensure that the ruminant animals are in the ready position to be slaughtered.

4.4.3.2 A preparation for direct slaughtering (without stunning and using restraining box), the organization must ensure:

- a. the officer in the slaughtering section has skills in laying down and positioning ruminants at the time of slaughter to facilitate slaughtering.
- b. if it is conducted laying down on ruminant animals, this process will not stress and injure the ruminant animals, and it is safe for the officer.
- c. ruminant animals that will be slaughtered are in a right position (to fulfill point b) and it is easy to conduct halal slaughtering.

4.4.3.3 In the event of making easier for position the animal prior to be slaughtered, the organization is allowed to use a restraining box equipment. The organization must ensure that the restraining box equipment:

- a. wherever possible should be arranged, so that the animal when being slaughtered faces the Qibla.
- b. can effectively make animals in a position that is not easy to move in order to facilitate the slaughtering process and safe for the officer.
- c. must be made of strong material, not easy to rust, not cause injury, illness, and excessive stress to the ruminant animals.
- d. must be maintained and inspected regularly and the results is documented.

4.4.3.4 The preparation for slaughtering without stunning and using the restraining box equipment, the organization must ensure:

- a. the procedure for using the restraining box equipment is available and the restraining box equipment is operated by the trained personnel.
- b. the officer in the slaughtering preparation section has skills in dropping and positioning ruminant animals when they are about to be slaughtered for facilitating the slaughtering process.

4.4.3.5 The stunning of the animal to be slaughtered is permitted in order to facilitate slaughtering and avoid the stressed animals when being slaughtered. This stunning process must use a restraining box. The used restraining box should have a head and neck brace.

4.4.3.6 The slaughtering preparation with the stunning and using restraining box, the Organization must ensure:

- a. the restraining box equipment fulfills the requirement of article 4.4.3.3.
- b. the stunning equipment is used using a non-penetrative mechanical method
- c. the stunning is conducted by a trained and competent officer.
- d. the restraining box equipment and stunning equipment that are used must be inspected regularly by the competent party to ensure both equipment function well and the result is documented.
- e. the restraining box equipment and stunning equipment are operated by a trained personnel in accordance with the procedure for using the equipment.

4.4.3.7 The Organization must ensure that the stunning officer is competent and under the supervision of the Halal Supervisor.

4.4.3.8 The Organization must ensure that the stunning equipment is in good and safe condition every time it will start the slaughtering process and is under the supervision of the Halal Supervisor.

4.4.3.9 The Organization must ensure that the stunning process does not kill the animal and does not result in permanent injury.

4.4.3.10 The slaughtering process must be conducted immediately after the ruminant animal has passed out for less than 30 seconds.

NOTE As a note, the animals positioning by hanging is only allowed for slaughtering using stunning.

4.4.3.11 The stunning animals are only permitted by non-penetrative mechanical methods using cartridges or compressed air (pneumatic) or hydraulic power. The guidelines for stunning can be seen in Appendix A.

4.4.3.12 If a non-penetrative stunning causes skull damage until it penetrates the brain then the stunning result cannot be accepted as a result of halal slaughtering.

4.4.3.13 The organization must ensure that it has at least two stunning equipment, which serve as the main and back up stunning equipment.

4.4.3.14 If an animal is found dead after stunning, the Halal Butcher or Halal Supervisor must separate it as a non-halal product.

4.4.3.15 If an animal fails to be stunned then the animal must be re-stunned immediately. The guidelines for stunning can be seen in Appendix A.

4.4.3.16 The organization must ensure that the used stunning method and equipment have been validated for compliance with the requirements in 4.4.3.9. The validation is conducted prior to be implemented and any changes in methods and equipment are made. The equipment validation uses the calibrated instruments. The records of validation results must be documented.

4.4.3.17 The organization must conduct a verification prior to the slaughtering process to ensure the stunning process in accordance with the validated method. The verification is conducted by a competent personnel at least once a year.

4.4.3.18 The organization must establish a stunning equipment maintenance plan which refers to the maintenance guidelines from the stunning equipment manufacturer. The maintenance activities for the stunning equipment must be conducted according to the schedule defined in the maintenance plan.

4.4.3.19 The organization must ensure that the Halal Supervisor (Halal Supervisor) must be a Muslim, has a healthy body and spirit, and has a good health record, as well as understand the procedures for slaughtering according to Islamic Shari'ah.

4.4.3.20 The organization must ensure that records of ruminant stunning, including those that do not fulfill the halal requirements, are kept and maintained.

4.5 Slaughtering

4.5.1 The Organization must ensure that ruminant animals slaughtering is done manually one by one by a Halal Butcher.

4.5.2 The organization must ensure that a Halal Butcher must:

- a. have a competence certificate as a Halal Butcher; or
- b. be a Muslim and pass the halal slaughtering training that is conducted by the relevant institution

4.5.3 The organization must have an adequate Halal Butcher in accordance with the number of slaughtered animals per day.

4.5.3.1 For large ruminant animals such as cattle and buffalo, if the organization slaughters more than 150 head per day in one line, so there must be at least 4 (four) Halal Butchers for each slaughtering line. The comparison of the number of animals and the Halal Butchers are shown in Table 1.

4.5.3.2 For small animals such as goat and sheep, if the organization slaughters more than 200 head per day in one line, then there must be at least 3 (three) Halal Butchers for each slaughtering line.

Tabel 1 – Comparison of the number of animals and Halal Butchers

No.	The number of slaughtered large ruminant animals per day	The minimum number of Halal Butcher in each line of slaughtering large ruminants
1	50	2
2	51 – 100	3
3	102 – 200	4

Table 2 – Comparison of the number of small ruminants and the Halal Slaughterer

No.	The number of slaughtered small ruminant animals	The minimum number of Halal Butcher in each line of slaughtering small ruminants
1	100	2
2	101 – 200	2
3	201 – 300	3

4.5.4 The organization must ensure that the Halal Butcher recites "*bismillah*allahuakbar" or "*bismillah*irrahmanirahiim" before slaughtering each animal.

4.5.5 The organization must ensure that the Halal Butcher has slaughtered each animal by cutting off the respiratory tract (trachea/hulqum), feeding tract (esophagus/mari') and two blood vessels (jugular vein and carotid artery on the left and right side/wadajain). A picture of slaughtering guidelines is shown in Appendix B.

4.5.6 The organization must ensure that the Halal Butcher conducts slaughtering on the front of the animal neck with one incision or maximum of 3 (three) times of reciprocal incision, without lifting the blade and not breaking the neck bone.

4.5.7 The organization must ensure that all stages of the slaughtering process have complied with the Islamic Sharia and under the supervision of the Halal Supervisor. If there is a slaughtering process that does not fulfill the requirements of 4.5.4 and 4.5.5, the Halal Supervisor must separate it as a non-halal product.

4.5.8 The organization must ensure that the Halal Supervisor has the ability to inspect the slaughtering process starting from pre-slaughtering to storing.

4.5.9 The organization must ensure that the Halal Supervisor) conducts:

- a. a confirmation that the stunning process, if any, does not cause pain and death to the animal.
- b. a confirmation that the slaughtering process fulfills the following requirements:
 - read tasmiyah
 - cut off the respiratory tract (trachea/hulqum), feeding tract (esophagus/mari') and two blood vessels (jugular vein and carotid artery on the left and right/wadajain)
 - blood radiates according to a heart rate.
- c. a confirmation that the animal is dead after being slaughtered before the next process is carried out.
- d. a confirmation that non-halal products do not mix with halal products during handling and storing (for example in a cold room/chiller, in a deboning room or in cold storage) as well as in the transportation process.

4.5.10 The organization must ensure that the records of the implementation of slaughtering, including the slaughtering that is not in accordance with halal requirements, must be documented.

4.5.11 Requirements for slaughtering equipment

4.5.11.1 The organization must ensure the knives that is used in the slaughtering process fulfills the requirements of:

- a. sharp, has a single blade, with an outward curved or straight and smooth tip and is not serrated, perforated, or damaged.
- b. blades are not made of bones, nails, horns and teeth/fangs.
- c. size is adjusted to the neck of the animal being slaughtered, at least equal to the width of the animal's neck.
- d. not sharpened near the animal that will be slaughtered.

4.5.11.2 The organization must ensure that every Halal Butcher is equipped with a minimum of 2 knives. If the knife is damaged it must be replaced and if it is blunt it must be sharpened.

4.5.11.3 The organization must ensure the slaughtering equipment that is used only for halal slaughtering.

4.6 Post-Slaughtering Handling

4.6.1 The Halal supervisor must ensure that the animal has died prior to further processing by observing the following characteristics: loss of pupil reflex, eyelid reflex (palpebrae), pinch reflex withdrawal reflex and the blood is no longer gushing.

NOTE In the event of a blockage of the blood vessels /the blood stopped gushing and the animal still shows signs of life, then corrective action is taken in the form of cutting the blood vessels only on the part that is blocked.

4.6.2 The organization must separate the room or location for carcass handling from the offal, skin, legs, and head.

4.6.3 The organization must ensure that the carcasses, offal, skins, legs, and heads originated from slaughtered animals in a way which does not fulfill the requirements of 4.5 are marked and treated as non-halal products.

NOTE If necessary, the Halal Supervisor conducts an inspection of broken skull if before the slaughtering there is a stunning process. The examination result is documented.

4.6.4 The organization must ensure that the offal removal process is carried out carefully in order that the abdominal cavity content and bladder do not contaminate the carcass.

4.6.5 The organization must ensure that the post mortem examination is conducted by an authorized and competent personnel.

4.6.7 The organization must document the post-slaughter handling process and maintain these documents.

4.7 Packaging and Labeling

4.7.1 Products of animal meat and by-products (offal organs) must be packaged using packaging materials which are not contaminated with unclean substances.

4.7.2 The packaging process must be carried out in a clean and hygienic area.

4.7.3 Labeling requirements on product packaging follows the legislation and at least includes:

- a. the valid halal logo,
- b. the date of slaughtering,
- c. the organizational identity.

4.7.4 For unpackaged products, it must be completed with proof of halal certificate

4.8 Storage

4.8.1 The organization must ensure that the carcass, offal, skin and head are kept separated from non-halal products.

4.8.2 The organization must ensure that the carcass and its derivatives fresh products are stored at a certain temperature which will not promote bacterial growth, that is, below 4°C (chilling) and for freezing below -18°C.

4.8.3 The organization must have a document of product storage record and maintain such documentation.

4.9 Transportation

4.9.1 The organization must ensure that the mean of transportation which is in direct contact with ruminant carcasses and their derivatives fresh products is specifically dedicated to transport the halal products and cannot be used interchangeably with non-halal products.

4.9.2 The organization must ensure that the mean of transportation which is in direct contact with ruminant carcasses and their derivatives fresh products is free from unclean and in good sanitary conditions.

4.10 The Facilities

4.10.1 The facilities of slaughtering house are only dedicated for the production of carcass and its derivatives fresh products that are halal (not mixed with non-halal cutting).

4.10.2 The location of the slaughtering house must be clearly separated from the non-halal slaughtering house and comply with the provisions of legislations.

4.10.3 If the deboning process is conducted outside the RPH (for example: Meat Handling Unit) then it must be ensured that the carcass only comes from halal RPH and the handling follows the halal provisions.

4.10.3 The organization must have a Wastewater Treatment Plant (IPAL) facility for handling waste (blood, feces) and an incinerator for handling inappropriate post mortem results.

4.11 Handling of non-halal products

4.11.1 The organization must have a procedure for dealing with non-halal products.

4.11.2 The documents of non-halal products handling must be maintained.

4.12 Traceability

4.12.1 The organization must have a written procedure to ensure a traceability of halal products.

4.12.2 The procedure must ensure that the certified products which are originated from halal animals, slaughtered according to halal requirements, and made in production facilities that fulfill the criteria for halal production facilities.

Appendix A
(Informative)

A guidance on stunning of non-penetrative mechanical method

A.1 A stunning gun and other supporting equipment (power load, compressors and others) must be in a clean condition and in a good working order.

A.2 The stunning area must be in a clean condition so that does not contaminate the ruminant animals.

A.3 The ruminants are shepherded to the restraining box with the conditions as calm as possible to avoid stress ruminant animals.

A.4 The operator must be able to decide on the bullet size that is used according to the weight of the ruminant animals or the amount of pressure depending on the type of stunning device (according to manual use of stunning tools).

A.5 The stunning should be carried out as quickly as possible in the correct position according to the species stunning device. Ruminants must be ensured that they are completely unconscious (not experiencing death).

A.6 The stunning officer checks the ear number (ear tag) beforehand perform stunning on ruminants.

A.7 Ruminants that have collapsed should be slaughtered immediately. Officer the butcher must confirm or check for completeness of the stunning.

A.8 The stunning officer records the ear number, the time of the stunning, type, number of animal teeth and verification of ear number detector checks.

Appendix B
(Informative)
Images of stunning and slaughtering

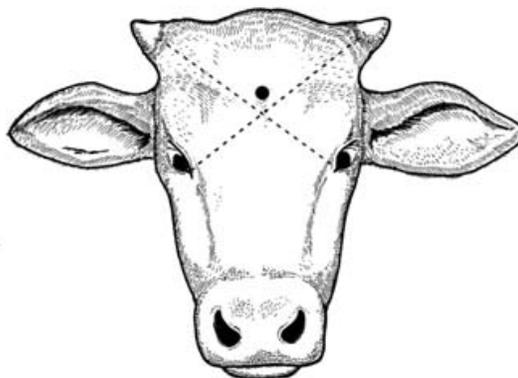


Figure B.1 - Point of stunning location, 2 cm above the cross line of the eye and horn



Figure B.2 - Point of stunning location, 2 cm above the eye crossover line and horn, side view

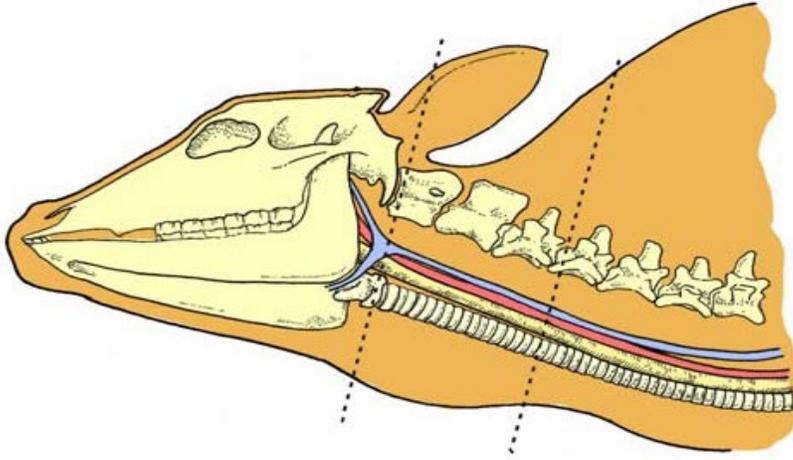


Figure B.3 - Anatomical position of C1-C3 (tracheal white, esophageal yellow, carotid artery red, jugular vein blue)

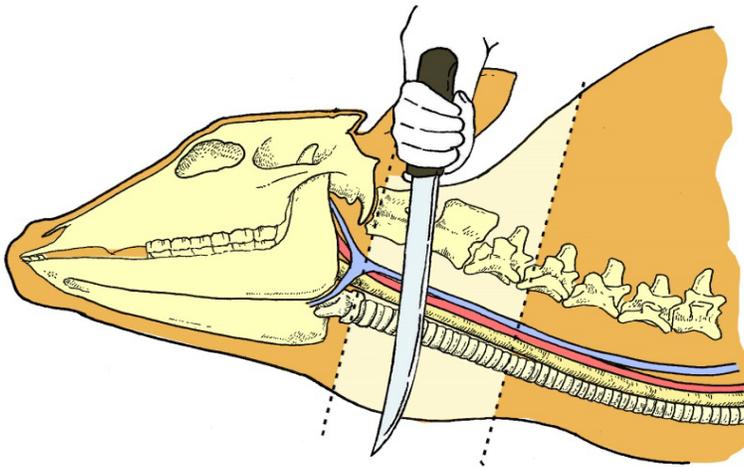


Figure B.4 - Method and position of neck incision (tracheal white, esophageal yellow, carotid artery red, jugular vein blue)

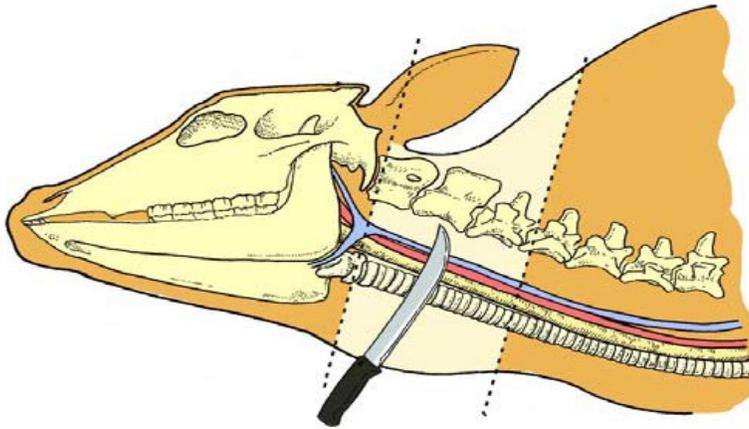


Figure B.5 - Alternative neck incisions (tracheal white, esophageal yellow, carotid artery red, jugular vein blue)

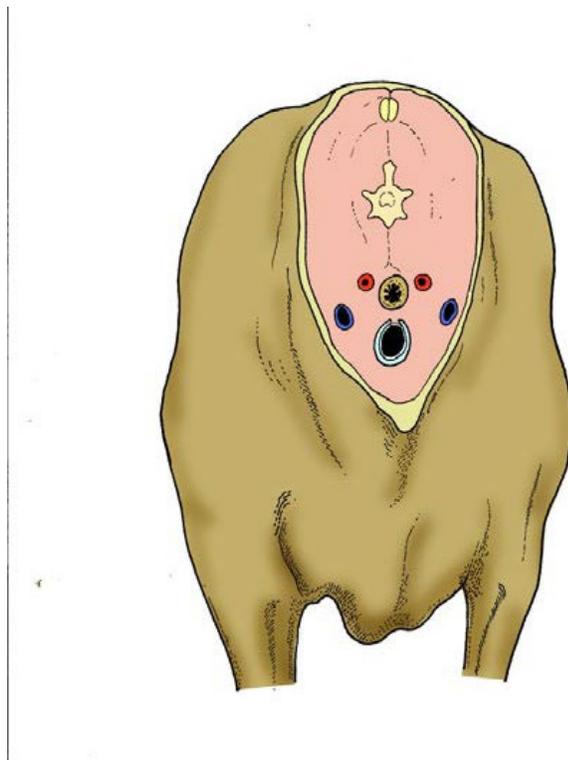


Figure B.6 - Schematic of the tracts that must be cut (tracheal white, esophageal yellow, carotid artery red, jugular vein blue)

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- [7] HAS 23103. 2012, Compliance Guidelines on the Criteria of Halal Assurance System in Slaughtering House, LPPOM MUI.

Supporting information related to the standard drafting

[1] Technical Committee of SNI Drafting

Technical Committee 03-08 Halal

[2] The membership composition of the technical committee of SNI drafting

Chairman	:	Sholahudin Al-Aiyub	Indonesian Council of Ulama
Secretary	:	Bety Wahyu	Center of Standard Drafting, the National Standardization Agency (BSN)
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