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### THE SPECIFICS OF HALAL STANDARD-HRN BAS 1049:2010

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#### **Abstract**

Nutrition is often determined by religious orders and restrictions. In Islam, what is permissible to do and use is named Halal. However, it does not involve only food, but indicates a specific relationship regarding all activities of human life, as prescribed by the Islamic law.

Increasing demand and trade in the international market for Halal products has created the need for designing the Halal standard which is the first Halal standard in the world approved by the Islamic Community-HRN BAS 1049:2010. It is registered at the Croatian Standard Institute. This enabled the countries of the region of Croatia, BIH, Serbia, Montenegro and Macedonia to establish a unique way of halal certification. In Croatia, on the basis of the Law on the Legal Status of Religious Communities, the Islamic community established the Center for Halal Quality Certification as a specialized institution for certifying halal in the Republic of Croatia. Therefore, the aim of this paper is to describe the specifics of applying the requirements of Halal standard on the livestock slaughter line. The processes control system related to the implementation of Halal products/services is done through an analysis and the HrCPP (haram critical control points) plan by keeping documents and records. Nine HrCPP have been defined. The application of halal standard is required by the implemented HACCP system and certification by the Center for Halal Quality Certification.

The successful implementation of halal standards in a livestock slaughterhouse was confirmed by the certification audit and by the halal certificate issued by the Center for Halal Quality Certification. Halal standard has always been an upgrade to the highest level of both the products and services that can be offered and that is what makes halal special in comparison with all known quality standards.

**Key words**: Halal standard, Certification, Livestock slaughter line, HrCPP.

#### 1. Introduction

Since the quality and safety of food products has become increasingly important for consumers, high demands regarding quality and food safety have been set for the food industry. Nowadays, throughout the world, a number of standards and norms have been identified their implementation and certification by the authorized bodies provide consumers with quality and health safety. One of the demands which is becoming more present is the Halal standard. Halal is a system of permissibility in Islam. It specifies requirements and measures that must be met in accordance with the Islamic religious law (sharia) to ensure the conditions for certification of halal quality. Halal standard has always been an upgrade to the highest level of both the products and services that can be offered and that is what makes halal special in comparison with all known quality standards [3], [5].

Sharia legislation is divided into two sets of law: those acts or certain product usages in everyday life that are allowed - halal, and those that are prohibited - haram. Haram, just as halal, has its foundations in the Qur'an. Everything we are not sure about which category it belongs to (haram or halal) falls into the category of doubtful -mushbooh. It is considered to be forbidden, i.e. haram, until proven permissible, i.e. halal [5].

In the course of 2007, Halal Standard BAS 1049:2010 Halal Food, Requirements and Measures was registered at the Bosnia and Herzegovina Standard Institute. In 2010, its second edition was taken over by the Croatian Standard Institute and labelledas Halal Standard HRN BAS 1049:2010.

On the basis of the Law on the Legal Status of Religious Communities (Official Gazette no. 83/02), the Islamic community in Croatia established the Centre for Halal Quality Certification as a specialized institution for certifying halal in the Republic of Croatia [7], [2]. The process of obtaining halal certification is established by the procedure for halal quality certification (Figure 1).



In the Republic of Croatia, 81 companies currently have a halal certificate (the Centre for Halal Quality Certification, 2015).

### 2. Materials and Methods

The research included the analysis of Halal norm HRN BAS 1049:2010 and the documentation which is applied during the halal slaughter of livestock and processing of halal meat, in order to show specific

qualities of applying the requirements and measures of Halal norm HRN BAS 1049:2010 in slaughterhouse for livestock, especially from the point 5 Requirements, The requirements 5.1 for animals i.e., The requirements 5.2 Rules on halal slaughter and requirements, i.e., 11.6 HrCCP (Haram Critical Control Point), analysis and plan [1], [4].

The documentation requested by the halal norm is integrated into the existing documentation requested by the HACCP system.

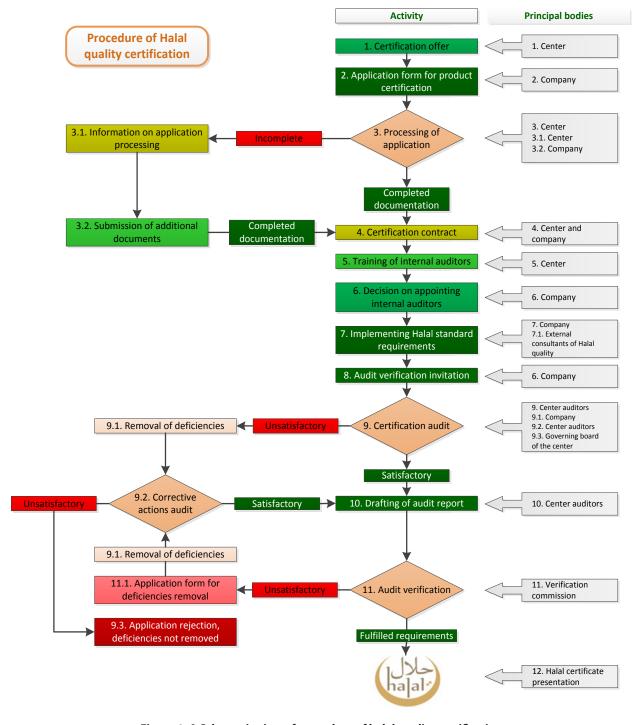


Figure 1. A Schematic view of procedure of halal quality certification



Appling the requirements of halal norm HRN BAS 1049:2010 in the slaughterhouse for livestock is conditioned by a certification issued by the Centre for Halal Quality Certification at the Islamic Community in Croatia. Ritual slaughter of such kind is also defined Act on the Implementation of EU Regulations Concerning Animal Protection (Official Gazette 125/13; 14/14; 92/14) and the Regulations on Protection of Animals in Slaughter and Killing (Official Gazette No. 39/08) where it is stated that ritual slaughter of animals is a slaughter without a previous stunning performed by the person authorized by the religious community registered in the Republic of Croatia [8], [6].

#### 3. Results and Discussion

Slaughtering spot must be intended exclusively for halal animals and halal slaughter and meet the requirements of prerequisite program defined in Codex CAC/RCP 1 or ISO 22000.

### The requirements 5.1.for animals intended for slaughter have to be halal

An animal for slaughter has to be healthy with the certificate of the examination by the competent veterinary institution; the animal for slaughter has to be alive at the moment of slaughter; the animal for slaughter has to be previously fed on the allowed feed without animal derived ingredients; the animals which were transported from far away have to be allowed to rest in conditions adequate for animals; treatment of animals in all stages has to be humane and mustnot cause their torture.

# <u>The requirements 5.2.Rules on halal slaughter and requirements</u>

The person performing a slaughtering act has to be a Muslim, mentally and qualified for that activity; the person who performs a slaughtering act must have a certificate for halal slaughtering issued by a competent institution.



Figure 2. A knife for halal slaughter

Tools and slaughtering equipment have to be clean and used for halal slaughter; slaughtering tools have to be sharp and, preferably, made of stainless steel and they have to cut with their sharpness, not their weight; bones, nails and teeth mustn't be used as slaughtering tools (Figure 2).

- During the slaughter of an animal, the person who slaughters pronounces the word "Bismillah", which means "in the name of Allah";
- The slaughter is done only once for each animal;
- The slaughter act begins by cutting the neck right before the glotis (Adam's apple) in order to improve the bleeding and the complete death of an animal (Figures 3, 4).



Figure 3. Box for halal slaughter with a tub for blood draining

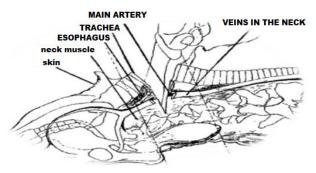


Figure 4. Halalslaughter

## 11.6 HrCCP (Haram Critical Control Point), analysis and plan

The monitoring system of processes related to the realization of halal products/services includes: the analysis of haram critical points - corrective measures of products/services (HrCCP); determining measures to prevent the possibilities for haram; defining instructions for acting at the critical point for haram control (HrCCP); acting in cases when the possibility for haram appears; documentation and records on HrCCP analysis and plan.



The analysis of hygiene and health safety is a prerequisite for defining HrCCP. HrACCP analysis of critical points for haram control has to include all the processes related to realization of halal products/services (HRN BAS 1049:2010).

The slaughterhouse has introduced and it carries out monitoring system of processes related to realization of halal products/services through the HrACPP analysis and plan haram critical control points-HrCPP that includes: analysis of haram critical control points-HrCPP for products/services; determining measures to prevent the possibilities for haram; defining instructions

for acting at the critical control point for haram control; acting in cases when the possibility for haram appears; documentation and records on HrACC analysis and plan. A total of nine HrCPP have been defined: fattening and procurement of live-stock; livestock in a depot; admission of livestock for halal slaughtering; halal slaughtering; blood draining after halal slaughtering; processing; storage; cleaning and sanitation of the facility. The treatment and prevention for each of HrCPP is also prescribed, as well as the corrective measures to be taken in case of making a food haram at defined points. Detailed records are kept on the subject (Table 1).

Table 1. HrACCPanalysis and plan

HrCCP	TERM HrCCP	PREVENTION AND TREATMENT FOR HrCCP	CORRECTIVE MEASURES (HARAM)
HrCCP1	FATTENING AND PROCUREMENT OF LIVESTOCK	Livestock allowed and approved for halal slaughtering. The livestock which comes to halal slaughtering has to be fed on feed which is in accordance with halal regulations, as well as its physical condition. Livestock supplier has to provide a statement that livestock was fed according to halal regulations and that statement with a specification, i.e. the description of ingredients of feed is sent to the Centre for certification for the record and control.	Livestock which was not fed or treated according to halal reg- ulations or is not in a physica condition according to halal reg- ulations cannot be halal.
HrCCP2	LIVESTOCK IN A DEPOT	Livestock can be fed only on feed approved by the Centre for Halal Quality Certification, i.e. on feed which doesn't contain corn meal of animal origin, pork fat as energy supplement in feed, hormones as bio stimulators, green herbage where pesticides were used and anything whose residues cause adverse effects.	If livestock was fed on forbidder feed, it is not approved for hala slaughtering. Halal slaughtering can be performed only after 45 days of quarantine on feed ap- proved by the Centre for Hala Quality Certification.
HrCCP3	ADMISSION OF LIVESTOCK FOR HALAL SLAUGHTERING	Provided veterinary supervision.	If livestock has unpermitted injuries or it is sick, it is not approved for halal slaughtering.
HrCCP4	HALAL SLAUGHTERING	Halal slaughtering is conducted in a specially adjusted box without previous stunning, and slaughtering is performed by an employee who is a Muslim (adult, mentally and physically healthy and qualified for performing halal slaughtering).  He pronounces ritual words Bismillah (in the name of Allah) and he will conduct halal slaughtering in one stroke from the front side of the neck using a special knife marked by red color, cutting four jugular veins along the way.	If the cattle are too disturbed, then a classic manner of slaugh- tering is applied with stunning. A special record is kept on that.
HrCCP5	BLOOD DRAINING AFTER CONDUCTED HALAL SLAUGHTER	After the conducted halal slaughter, blood draining takes place in the box, above the blood draining tub in the period of 3-5 minutes.	-
HrCCP6	PROCESSING	The procedure is conducted separately from haram processing so that it doesn't contaminate.  Knives, cooks and aprons with red dots are used and that equipment is stored, separately from other equipment so that it doesn't come into contact with unpermitted livestock.	If the equipment which is not intended for halal is used for meat processing according to requirements of halal norm, that meat is exempted, labelled as haram and it is used for other purposes. A special record is kept on that.
HrCCP7	STORAGE	Halal meat can be haram if it is not physically or spatially separated from haram products. For that reason it has to be stored in a special chamber (4A) which is labelled halal in red letters.	If meat becomes haram, it is ex- empted, labelled as haram and is used for other purposes. A spe- cial record is kept on that.
HrCCP8	SHIPPING	Halal meat can become haram at shipping if it is contaminated by haram meat, so one employee exclusively processes halal meat and prepares it for shipping. He doesn't handle any other meat. Except for the legally prescribed information, the declaration has to contain a sign of halal quality too.	If meat becomes haram, it is ex- empted, labelled as haram and is used for other purposes. A spe- cial record is kept on that.
HrCCP9	CLEANING AND SANITATION OF THE FACILITY	It has to be done every time after using a part of equipment and machines for processing haram meat, prior to halal processing. The head of the facility examines the facility after the washing and sanitation of the facility.	Repeat sanitation and washing.



### 4. Conclusions

- Applying halal norm HRN BAS 1049:2010 in the slaughterhouse for large livestock is conditioned by the implemented HACCP system and a certificate by the Center for Halal Quality Certification. Each such product has a declaration with a sign-Halal quality sign (Figure 6).





Figure 6. Declaration of halal meat and a halal quality sign

- While defining a HrACPP analysis and plan, a principle was taken into account that even the smallest amount of haram ingredients, products and means which were in contact with haram will impair the halal status of products/services.
- The analysis of hygiene and health safety is a prerequisite for defining a HrCPP. All the processes related to realization of halal products/services were included in the procedure of halal slaughtering of large livestock by defining and analyzing the critical control points for haram control. A total of 9 HrCPP points have been defined.
- Ritual slaughter of such type is not in contradiction with the current legislation since it is applied in an accordance with existing regulations [8], [6].
- Good manufacturing practice of halal slaughtering can be applied on very similar principles of HACCP system and, as such, it can be developed and revised to satisfactory levels, as for the needs of producers, i.e., the market, so for the legislator of the country where the facility is located.

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