Draft Indian Standard

CODE OF PRACTICE FOR ANTE-MORTEM AND POST-MORTEM INSPECTION OF MEAT ANIMALS
(Second revision of IS 1982)

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<th>Not to be reproduced without the permission of BIS or used as a standard</th>
<th>Last date for receipt of comments is 29/07/2015</th>
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Slaughter House and Meat Industry Sectional Committee, FAD 18

**FOREWORD**

(Formal clauses would be added later)

Proper ante-mortem inspection of all animals before slaughter and proper post-mortem inspection after slaughter of food animals is essential to ensure that they are not affected with any disease or other condition which may render the flesh unwholesome. There are some diseases which are communicable from animals to human by contact and, therefore, ante-mortem inspection is also necessary for safeguarding the health of the consumer as well as other meat handlers. Post-mortem inspection is essential to detect carcasses, parts of carcasses and organs which may be diseased and, thereby, rendered unfit for human consumption.

Veterinary science and the science of meat hygiene should be applied throughout the food chain, starting at the farm of origin, so that fresh meat produced from slaughtered animals is safe and wholesome. Traditional practices may permit departures from some of the requirements when fresh meat is produced for local trade.
This standard was first published in 1962. The first revision of this standard was taken up in 1971 incorporating the following modifications: (a) camel, horse, mare, ass and mule have been excluded from the scope of the standard since these animals are not slaughtered in the country; (b) the terminology has been aligned with that of the ‘The Meat Food Products Order, 1973’; and (c) detailed instructions on dealing with anthrax infected carcasses have been included.

This Second revision is undertaken to align with the Recommended International Code of Hygienic Practice for Meat (CAC/RCP 58 : 2005) and Food Safety and Standard (Licensing and Registration of Food Businesses) Regulations, 2011.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 1960 ‘Rules for rounding off numerical values (revised)’. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.
Draft Indian Standard

CODE OF PRACTICE FOR ANTE-MORTEM
AND POST-MORTEM INSPECTION OF MEAT
PRODUCING ANIMALS
(Second revision of IS 1982)

1. SCOPE
1.1 This standard prescribes the procedure for the ante-mortem and post-mortem inspection of meat producing animals.

2. REFERENCES
The following Indian Standard contains provisions which through reference in this text, constitute provision of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standard indicated below:

<table>
<thead>
<tr>
<th>IS No.</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>IS 4393:1979</td>
<td>Basic requirements for an abattoir</td>
</tr>
</tbody>
</table>

3. TERMINOLOGY
For the purpose of this standard, the following definitions shall apply.

3.1 Abattoir/Slaughter house — Any establishment where specified animals are slaughtered and dressed for human consumption and that is approved, registered and/or listed by the competent authority for such purposes.

3.2 Approved as fit for human consumption — Approved as fit for human consumption means the meat has been inspected and passed without any restrictions, and branded accordingly.

3.3 Animals — Include:
   a) Large Ruminants — Cattle (bull, bullock/steer, calf, cow, heifer, stag) ; Buffalo (bull, bullock/steer, calf, cow, heifer, stag)
   b) Small Ruminants — Sheep (lamb, ram, ewe, gimmer, wether) ; goat (doe, kid, buck) and;
   c) Pig — barrow, boar, piglet, gilt, and sow; and
   d) Poultry — chicken (domestic fowl), duck, turkey, Japanese quail, goose, guinea fowl.
3.4 **Ante-mortem inspection** — Any procedure or test conducted by a competent person on live animals for the purpose of judgment of safety and suitability and disposition.

3.5 **Branding** — means any mark or stamp approved by the controlling authority and also includes any tag or label bearing such mark or stamp.

3.6 **Carcass** — The body of any slaughtered food animal after bleeding, flaying and dressing.

3.7 **Chemical residues** — residues of veterinary drugs and pesticides and contaminants, as described in the definitions of procedural manual of the Codex Alimentarius commission.

3.8 **Competent authority** — The official authority charged by the government with the control of meat hygiene, including setting and enforcing regulatory meat hygiene requirements. In this case Food Safety and Standards Authority of India (FSSAI).

3.9 **Competent body** — A body officially recognised and overseen by the competent authority to undertake specified meat hygiene activities.

3.10 **Competent person** — A qualified veterinary doctor who has the training, knowledge, skills and ability to perform an assigned task, and who is subject to requirements specified by the competent authority.

3.11 **Condemned** — Inspected and judged by a competent person, or otherwise determined by the competent authority, as being unsafe or unsuitable for human consumption and requiring appropriate disposal.

3.12 **Dressing** — The progressive separation of the body of an animal into a carcass and other edible and inedible parts.

3.13 **Emergency Slaughter** — slaughter by necessity of any animal that:
    (a) has recently suffered traumatic injury and is judged to be in pain; or
    (b) is affected by a condition that does not preclude its partial or conditional fitness for human consumption, but that is likely to deteriorate unless slaughter takes place immediately.

3.14 **Meat** — All edible parts (including edible offal) of any food animal slaughtered in an abattoir that are intended for or have been judged as safe and suitable for, human consumption.

3.15 **Meat Inspector** — Qualified veterinary doctor

3.16 **Post-mortem Inspection** — Any procedure or test conducted by a competent person on all relevant parts of slaughtered/killed animals for the purpose of judgement of safety and suitability and disposition.

3.17 **Veterinary Inspector** — Any duly qualified veterinarian appointed or employed by a local authority or by the Central/State Government.

4. **MEAT INSPECTION PROCEDURES**

4.1 **ANTE-MORTEM INSPECTION**

4.1.1 Animals described below should be subject to special controls, procedures
or operations imposed by the competent authority (which may include denial of entry to the abattoir) when:

a. animals are not sufficiently clean;
b. animals have died in transit;
c. a zoonotic disease posing an immediate threat to either animals or humans is present, or suspected;
d. an animal health disease subject to quarantine restrictions is present, or suspected;
e. animal identification requirements are not met; or declarations from the primary producer, if required by the competent authority (including compliance with good veterinary practice in the use of animal medicines), are absent or inadequate.

4.1.2 All animals presented for slaughter should be subjected to ante-mortem inspection, by a competent person whether on an individual or a lot basis. Inspection should include confirmation that the animals are properly identified, so that any special conditions pertaining to their place of primary production are considered in the ante-mortem inspection, including relevant public and animal health quarantine controls.

4.1.3 Animals presented for slaughter should be examined and judged for general pathological conditions and symptoms of communicable diseases so that entry of such animals into the sheds is prevented.

4.1.4 Ante-mortem inspection should support post-mortem inspection by application of a specific range of procedures and/or tests that consider the behaviour, demeanour and appearance, as well as signs of disease in the live animal.

4.1.5 Such ante-mortem inspection shall be made on the premises (yards and Lairage) attached to the abattoir in which the animals are about to be slaughtered.

4.1.6 All animals meant for slaughter should be rested at least for 24 hours and should not be fed for at least twelve hours before slaughter but they should be provided with abundant water. All the precautions for animal welfare shall be followed as per FSSAI regulations, 2011

4.1.7 The format for reporting Ante-Mortem Inspection for meat animals is given at Annexure-I.

4.1.8 The following shall be followed in design of ante-mortem inspection systems;
   a) Ante-mortem inspection should be included as an integral component of an overarching risk-based system for the production of meat, with systems for process control incorporating appropriate components. Relevant information on the slaughter population, e.g., animal class,
health status, geographical region of origin, should be utilised in both the design and implementation of ante-mortem inspection systems.

b) Ante-mortem inspection, including procedures and tests, should be established by the competent authority according to a science and risk-based approach. In the absence of a risk-based system, procedures will have to be based on current scientific knowledge and practice.

c) Ante-mortem procedures and tests may be integrated and implemented together so as to achieve public health and animal health objectives. In such cases all aspects of ante-mortem inspection should be science-based and be tailored to the relevant risks.

d) Where indicated by public health concerns, measures additional to routine ante-mortem inspection may be required.

4.1.9 Characteristics of a risk-based ante-mortem inspection programme are:

a) procedures for confirmation of proper animal identification in accordance with national legislation;

b) design and application of organoleptic procedures and tests that are relevant and proportional to meat-borne risks associated with clinical signs of illness and grossly-detectable abnormalities;

c) tailoring of procedures to the spectrum and prevalence of diseases and defects reasonably likely to be present in the slaughter population, taking into account the type of animal, geographical origin and primary production system;

d) integration with HACCP-based process control to the extent practicable, e.g., application of objective criteria for ensuring appropriate cleanliness of animals presented for slaughter;

e) on-going tailoring of procedures to information received from the primary production unit, where practicable;

f) use of laboratory tests for hazards that are unaddressed by organoleptic inspection when their presence is suspected, e.g., chemical residues and contaminants; and

g) return of information to the primary producer so as to seek continuous improvement in the safety and suitability status of animals presented for slaughter.

4.1.10 The below mentioned things shall be considered while Implementation of ante-mortem inspection;
4.1.10.1 The competent authority should determine how ante-mortem inspection is to be implemented, including identification of the components that may be applied at primary production rather than the abattoir, e.g., in the case of intensively-raised poultry. The competent authority should establish the training, knowledge, skills and ability requirements of all personnel involved, and the roles of the official inspector, including the veterinary inspector. Verification of inspection activities and judgements should be undertaken as appropriate by the competent authority or competent body. The final responsibility for verifying that all regulatory requirements are met should lie with the competent authority.

4.1.10.2 The responsibilities of the establishment operator in respect of ante-mortem inspection include:

   a) providing verifiable information required by the competent authority with respect to ante-mortem inspection carried out at primary production;

   b) segregation of animals if, for example, they have recently given birth during transport or in lairages, or have recently aborted and/or show retained foetal membranes;

   c) applying identification systems for individual animals or lots of animals until the time of slaughter that document the outcome of ante-mortem inspection, and after slaughter in the case of “suspect” animals;

   d) presentation of animals that are sufficiently clean; and

   e) prompt removal of animals that have died in the lairage, e.g., from metabolic disease, stress, suffocation, with the permission of the competent person undertaking ante-mortem inspection.

4.1.11 Ante-mortem inspection at the abattoir should occur as soon, as is practicable after delivery of slaughter animals. Only animals that are judged to be sufficiently rested should proceed to slaughter, but should not be withheld from slaughter any longer than necessary. If ante-mortem inspection has occurred and there is a delay of more than 24 hours before slaughter, ante-mortem inspection should be repeated.

4.1.11.1 Ante-mortem inspection systems required by the competent authority should include the following:

   a) all relevant information from the level of primary production should be taken into account on an on-going basis, e.g., declarations from the primary producers relating to the use of veterinary drugs, information from official hazard control programmes;
b) animals suspected as being unsafe or unsuitable for human consumption should be identified as such and handled separately from normal animals;

c) results of ante-mortem inspection are made available to the competent person undertaking post-mortem inspection before animals are inspected at the post-mortem stations so as to augment final judgment. This is particularly important when a competent person undertaking ante-mortem inspection, judges that a suspect animal can proceed to slaughter under special hygiene conditions.;

d) in more equivocal situations, the competent person undertaking ante-mortem inspection may hold the animal (or lot) in special facilities for more detailed inspection, diagnostic tests, and/or treatment;

e) animals condemned as unsafe or unsuitable for human consumption should be immediately identified as such and handled in a manner that does not result in cross-contamination of other animals with food-borne hazards; and

f) the reason for condemnation should be recorded, with confirmatory laboratory tests being carried out if deemed necessary. Feed back of this information to the primary producer should take place.

4.1.12 Slaughter of animals under an official or officially-recognised programme for the eradication or control of a specific zoonotic disease, e.g., salmonellosis, should only be carried out under the hygiene conditions specified by the competent authority.

4.1.13 Ante-mortem judgment categories include:

a) passed for slaughter;

b) passed for slaughter subject to a second ante-mortem inspection, after an additional holding period, e.g., when animals are insufficiently rested, or are temporarily affected by a physiological or metabolic condition;

c) passed for slaughter under special conditions i.e. deferred slaughter as “suspects”, where the competent person undertaking ante-mortem inspection suspects that post-mortem inspection findings could result in partial or total condemnation;
d) condemned for public health reasons i.e. due to: meat-borne hazards, occupational health hazards, or likelihood of unacceptable contamination of the slaughter and dressing environment following slaughter;

e) condemned for meat suitability reasons;

f) emergency slaughter, when an animal eligible for being passed under special conditions could deteriorate if there was a delay in slaughter; and

g) condemned for animal health reasons, as specified in relevant national legislation.

4.2 POST-MORTEM INSPECTION

4.2.1 All carcasses and other relevant parts should be subjected to post-mortem inspection, which preferably should be part of an overarching, risk-based system for the production of meat.

4.2.2 Post-mortem inspection should be carried out without delay after dressing of the carcass is complete. Some lesions may fade with time. Conversely, it should be possible to set suspect carcasses aside for re-inspection later, as some lesions will intensify with time.

4.2.3 The design of Post-mortem inspection systems shall consider the following:

4.2.3.1 Post-mortem inspection of carcasses and other relevant parts should utilise information from primary production and ante-mortem inspection, together with the findings from organoleptic inspection of the head, carcass and viscera, to make a judgement on the safety and suitability of parts intended for human consumption.

4.2.3.2 Post-mortem procedures and tests may be integrated and implemented together so as to achieve public health and animal health objectives. In such cases, all aspects of post-mortem inspection should be science- based and be tailored to the relevant risks.

4.2.3.3 Relevant information on the animal population, e.g., animal type, health status, geographical region of origin, should be utilised in both the design and implementation of post-mortem inspection systems.

4.2.3.4 Where indicated by public health concerns, routine screening of carcasses and other relevant parts by methods other than organoleptic inspection may be required for suspected hazards, e.g., testing for Trichinella
spp. The format for reporting Post-Mortem Inspection for meat animals is given at **Annexure-II**.

4.2.3.5 The guideline for post mortem inspection requirements for Heads, Viscera and Carcasses in given at **Annexure-III**.

4.2.3.6 Characteristics of a risk-based post-mortem inspection programme are:

a) design and application of organoleptic procedures and tests that are relevant and proportional to meat-borne risks associated with grossly-detectable abnormalities;

b) tailoring of procedures to the spectrum and prevalence of diseases and defects reasonably likely to be present in the particular slaughter population, taking into account the type (age), geographical origin and primary production system of the slaughter animals, e.g., multiple incisions of relevant muscles in all pigs from geographical regions where Taenia solium is present;

c) procedures that minimize cross-contamination through handling to the greatest extent practicable, and may include procedures that are limited to visual observation of carcasses and other relevant parts in the first instance if justified by risk assessment;

d) inspection of non-edible parts of animals where they may play an indicator role in the judgement of edible parts;

e) modification of traditional procedures where scientific investigation has shown them to be ineffective, or, of themselves, hazardous to food, e.g., routine incision of lymph nodes of young animals to detect granulomatosus abnormalities;

f) application of more intensive organoleptic procedures on a routine basis when a disease or condition capable of general distribution is found in a single part of a carcass and other relevant parts, e.g., cysts of Taenia saginata in cattle, xanthosis;

g) application of additional risk-based inspection procedures on a routine basis when live animals are positive to a diagnostic test, e.g., tuberculin test in cattle, mallein test in horses;

h) use of laboratory tests for hazards that are unaddressed by organoleptic inspection, e.g., Trichinella spp., chemical residues and contaminants;

i) application of measurable outcomes of organoleptic inspection that reflect a risk-based approach;
j) integration with HACCP plans for other process control activities;

k) on-going tailoring of procedures to take into consideration information received from the primary producer on a lot-by-lot basis; and

l) return of information to the primary producer so as to seek continuous improvement in the safety and suitability status of animals presented for slaughter.

4.2.4 The below mentioned things shall be considered while Implementation of post-mortem inspection;

4.2.4.1 Post-mortem inspection should occur as soon as is practicable after slaughter of animals, or delivery of killed wild game animals. Inspection should take into account all relevant information from the level of primary production and ante-mortem inspection, e.g. information from official or officially-recognised hazard control programmes, information on animals slaughtered as “suspects”.

4.2.4.2 The competent authority should determine: how post-mortem inspection is to be implemented, the training, knowledge, skills and ability required of personnel involved (including the role of the official inspector, the veterinary inspector, and any personnel not employed by the competent authority), and the frequency and intensity of verification activities (refer to 9.2.4). The final responsibility for verifying that all post-mortem inspection and judgment requirements are met should lie with the competent authority.

4.2.4.3 Carcasses and other relevant parts condemned by the competent person undertaking post-mortem inspection, as unsafe or unsuitable for human consumption should be identified as appropriate and handled in a manner that does not result in cross-contamination of meat from other carcasses and relevant parts. The reason for condemnation should be recorded, and confirmatory laboratory tests may be taken if deemed necessary.

4.2.4.4 The responsibilities of the establishment operator in respect of post-mortem inspection include:

a) maintenance of the identity of a carcass and other relevant parts (including blood as appropriate) until inspection is complete;

b) skinning and dressing of heads to the extent necessary to facilitate inspection, e.g., partial skinning to allow access to sub-maxillary lymph nodes, detaching of the base of the tongue to allow access to the retropharyngeal lymph nodes;

c) skinning of heads to the extent necessary to allow hygienic removal of edible parts, when this is a processing option;
d) presentation of a carcass and other relevant parts for inspection according to the requirements of the competent authority;

e) a prohibition on establishment personnel intentionally removing or modifying any evidence of a disease or defect, or animal identification mark, prior to post mortem inspection;

f) prompt removal of foetuses from the evisceration area, for rendering or other processes as allowed by the competent authority, e.g., collection of foetal blood;

g) retention in the inspection area of all carcasses and other relevant parts required for inspection, until inspection and judgement has been completed;

h) provision of facilities for identifying and retaining all carcasses and other relevant parts that require more detailed inspection and/or diagnostic tests before a judgement on safety and suitability can be made, in a manner that prevents cross-contamination of meat from other carcasses and other relevant parts;

i) condemnation of parts of the carcass trimmed from the region of the sticking wound;

j) routine condemnation of the liver and/or kidneys from older animals where the competent authority has determined that there may be accumulation of heavy metals to an unacceptable level;

k) use of health marks (as specified by the competent authority) that communicate the outcome of post-mortem inspection; and

l) co-operation with competent persons undertaking post-mortem inspection, in all other ways necessary to facilitate effective post-mortem inspection, e.g., access to processing records, and easy access to all carcasses and other relevant parts

4.2.4.5 Post-mortem inspection systems, should include:

a) procedures and tests that are risk-based to the extent possible and practicable;

b) confirmation of proper stunning and bleeding;
c) availability of inspection as soon as is practicable after completion of dressing;

d) visual inspection of the carcass and other relevant parts, including inedible parts, as determined by the competent authority;

e) palpation and/or incision of the carcass and other relevant parts, including inedible parts, as determined by the competent authority according to a risk-based approach;

f) additional palpation and/or incisions, as necessary to reach a judgement for an individual carcass and other relevant parts, and under appropriate hygiene control;

g) more detailed inspection of edible parts intended for human consumption compared with inspection of those parts for indicator purposes alone, as appropriate to the circumstances;

h) systematic, multiple incisions of lymph nodes where incision is necessary;

i) other organoleptic inspection procedures, e.g., smell, touch;

j) where necessary, laboratory diagnostic and other tests carried out by the competent authority or by the establishment operator under instruction;

k) performance objectives or performance criteria for the outcomes of organoleptic inspection, if available;

l) regulatory authority to slow or halt processing so as to allow adequate post-mortem inspection at all times;

m) removal of specified parts if required by the competent authority, e.g., “specified risk materials” for BSE; and

n) proper use and secure storage of equipment for health marking.

4.2.5 Post-Mortem Judgement shall be made on the basis of following;

4.2.5.1 Post-mortem judgment of edible parts as safe and suitable for human consumption should primarily be based on food-borne risks to human health. Other risks to human health, e.g., from occupational exposure or from handling of meat in the home, also are an important consideration. Judgments in relation to suitability characteristics of meat should reflect consumer acceptability requirements appropriate to intended end-use.
4.2.5.2 Post-mortem inspection programmes may be utilized to identify and judge carcases and other relevant parts according to risks to animal health, as specified in relevant national legislation.

4.2.5.3 Judgement of edible parts as safe and suitable should take into account information from the following sources:

a) information from primary production;
b) observations made of animals in the lairage;
c) ante-mortem inspection; and
d) post-mortem inspection, including diagnostic tests, where required.

4.2.5.4 Judgments should be based on science and risks to human health to the greatest extent possible, with guidelines being provided by the competent authority. Judgments should only be made by competent persons. The level of training, knowledge, skills and ability required for judgment may be less in situations where edible parts demonstrating a specific abnormality are always judged to be unsafe or unsuitable for human consumption and appropriately disposed of.

4.2.5.5 Where the initial results of post-mortem inspection are insufficient to accurately judge edible parts as safe or suitable for human consumption, a provisional judgment should be followed up with more detailed inspection procedures and/or tests. Pending the outcome of more detailed inspection and/or diagnostic tests, all parts of the animal that are required for further investigation should be held under the control of the competent person undertaking these activities.

4.2.5.6 Judgement categories for edible parts include:

a) safe and suitable for human consumption;
b) safe and suitable for human consumption, subject to application of a prescribed process, e.g., cooking, freezing;
c) held on suspicion of being unsafe or unsuitable, pending the outcome of further procedures and/or tests.
d) unsafe for human consumption but able to be used for some other purpose, e.g., pet-food, feed and feed ingredients, industrial non-food use, providing there are adequate hygiene controls to prevent any transmission of hazards, or illegal re-entry to the human food chain;
e) unsafe for human consumption and requiring condemnation and destruction;

f) unsuitable for human consumption, but able to be used for some other purpose, e.g., pet-food, feed and feed ingredients, industrial non-food use, providing there are adequate controls to prevent illegal re-entry to the human food chain;

g) unsuitable for human consumption, and requiring condemnation and destruction; and

h) unsafe for animal health reasons as specified in national legislation, and disposed of accordingly.

4.2.5.7 When edible parts are judged to be safe and suitable for human consumption subject to application of a prescribed process, the specifications for that process should be verified by the competent authority as sufficient to eliminate/reduce or adequately remove the hazard or condition of concern, e.g., specifications for retorting, high temperature rendering and freezing.

4.3 DISPOSITION AND BRANDING

4.3.1 After a decision has been made by an inspector that meat is fit for human consumption, conditionally fit for human consumption or unfit for human consumption, it is necessary that it be marked in a systematic manner to show the result of inspection. This is to enable control and proper handling/disposal prior to its reaching the consumer as well as to assure consumers of the official guarantee of safety and wholesomeness of meat.

4.3.2 The size, shape, and wording of any brand, as well as the colour and composition of marking ink used for the branding of meat, should be laid down by the competent authority and should be uniform throughout the country. Consideration should be given at the design stage to the need to achieve legible impressions of brands under working conditions. Brands comprising suitable permitted ink shall be applied to the meat and the brand shall contain FSSAI License Number.

4.3.3 Carcasses, heads, organs and viscera that as a result of ante-mortem and post-mortem inspection are passed as fit for human consumption without further restrictions should be legibly and appropriately branded.

4.3.4 Any meat (including heads, organs and viscera) that requires treatment by heat or by freezing to render it fit for human consumption should be suitably identified and, if necessary, branded as such and kept under the supervision of an
inspector until the necessary treatment has been completed and the carcass and any parts can be passed as fit for human consumption.

4.3.5 All carcasses, parts of carcases, organs and viscera that as a result of ante-mortem and post-mortem inspection are found to be unfit for human consumption, and foetuses, should be held securely to the satisfaction of the inspector until they are branded, stained, rendered, denatured or otherwise destroyed, so excluding them from the human food chain.

4.3.6 Brands and stamps used to apply the marks of inspection should be kept clean while in use. They should be held under the control of an inspector and used only under an inspector's supervision.

4.3.7 The Stamping Ink may be prepared based on the following procedures;

a) A solution containing 1 to 2 percent of fuchsin in acetic acid may be used. The fuchsin is dissolved in just enough acetic acid to bring about the solution and then glycerine is added to make up the required quantity.

b) Alternatively, a stamping ink prepared according to the following formula may be used:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methyl violet</td>
<td>35 g</td>
</tr>
<tr>
<td>Cane sugar</td>
<td>450 g</td>
</tr>
<tr>
<td>Ethyl alcohol</td>
<td>1363 ml</td>
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<tr>
<td>Water</td>
<td>1636 ml</td>
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</tbody>
</table>

The sugar is dissolved in water, the alcohol, then-added and finally the methyl violet. The solution is stirred and allowed to stand for 12 hours before use. Stamps preferably bearing heads of different animals should be used.

4.4 CHEMICAL RESIDUES

4.4.1 If there is any suspicion about the chemical residues during inspection, then the sample shall be sent for residue analysis to any NABL accredited laboratory.

4.5 UTILIZATION OF MEAT INSPECTION FINDINGS

4.5.1 The controlling authority should make meat inspection findings available to assist other agencies involved in human health and animal health.

4.5.2 In meeting this objective, the controlling authority should ensure that surveillance activities are distinguished from normal meat inspection activities,
and do not jeopardize the efficient delivery of meat inspection services or the efficient operation of the meat industry.

4.5.3 Where possible the controlling authority should take an active role in animal health management programmes that assure a safe and wholesome food supply and information on zoonotic disease should be provided to the appropriate agencies.

4.5.4 The controlling authority should closely collaborate with the authorities responsible for animal disease control and with public health authorities so that the greatest possible use can be made of meat inspection findings.

4.5.5 Research and surveillance activities should be distinguished from routine meat inspection and from those laboratory examinations that may be required for the immediate purpose of decision making, and should have no delaying effect upon the normal course of post-mortem judgement.

4.5.6 Notifiable animal disease detected at ante-mortem or post-mortem inspection should be reported directly to the veterinary authority responsible for animal disease control.
# ANNEXURE- I
ANTE- MORTEM INSPECTION REPORT
(Clause 4.1.7)

<table>
<thead>
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<td>Owners Name and Address</td>
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<td>2.</td>
<td>No of Animals in the lot and Arrival Time</td>
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<td>3.</td>
<td>Species and Sex of the Animal</td>
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<tr>
<td>4.</td>
<td>Diseases and Treatment History</td>
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</tr>
<tr>
<td>5.</td>
<td>Time and Date of Ante-mortem Inspection</td>
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</tr>
<tr>
<td>6.</td>
<td>Clinical Signs and Body temperature (if relevant)</td>
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<td>7.</td>
<td>Reasons why the animal was held</td>
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<td>8.</td>
<td>Ante-mortem Inspection of Animal at Rest and Motion (Individual &amp; Collective);</td>
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<td>8.1</td>
<td>Nutritional Status</td>
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<td>8.2</td>
<td>Cleanliness</td>
<td>:</td>
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<td>8.3</td>
<td>Signs of diseases and abnormalities</td>
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<td>Abnormalities found in;</td>
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</tr>
<tr>
<td></td>
<td>a) Respiration</td>
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<td>b) Behaviour</td>
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<td>d) Posture</td>
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<td>e) Structure and Conformation</td>
<td>:</td>
</tr>
<tr>
<td></td>
<td>f) Discharge or Protrusion from body opening</td>
<td>:</td>
</tr>
<tr>
<td></td>
<td>g) Abnormal Color</td>
<td>:</td>
</tr>
<tr>
<td></td>
<td>h) Abnormal Odour</td>
<td>:</td>
</tr>
<tr>
<td>9.</td>
<td>Judgement</td>
<td>:</td>
</tr>
<tr>
<td>10.</td>
<td>Remarks (if any)</td>
<td>:</td>
</tr>
</tbody>
</table>

Place:
Date:
Signature of Meat Inspector (with office seal)
Name and Registration Number
**ANNEXURE- II**
**POST–MORTEM INSPECTION REPORT**
(Clause 4.2.3.4)

<table>
<thead>
<tr>
<th>Sl.No</th>
<th>EXAMINATION</th>
<th>REPORT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Owners Name and FSSAI License No</td>
<td>:</td>
</tr>
<tr>
<td>2.</td>
<td>Time and Date of Post-mortem Inspection</td>
<td>:</td>
</tr>
<tr>
<td>3.</td>
<td>Identity of the carcass (age and tag number)</td>
<td>:</td>
</tr>
<tr>
<td>4.</td>
<td>Condition of the carcass</td>
<td>:</td>
</tr>
<tr>
<td>5.</td>
<td>Rigor mortis</td>
<td>:</td>
</tr>
<tr>
<td>6.</td>
<td>Serous infiltration</td>
<td>:</td>
</tr>
<tr>
<td>7.</td>
<td>Colour of the carcass</td>
<td>:</td>
</tr>
<tr>
<td>8.</td>
<td>Presence of off-flavours</td>
<td>:</td>
</tr>
<tr>
<td>9.</td>
<td>Presence of external wounds</td>
<td>:</td>
</tr>
<tr>
<td>10.</td>
<td>Examination of head and tongue</td>
<td>:</td>
</tr>
<tr>
<td>11.</td>
<td>Examination of lungs</td>
<td>:</td>
</tr>
<tr>
<td>12.</td>
<td>Examination of spleen</td>
<td>:</td>
</tr>
<tr>
<td>13.</td>
<td>Examination of heart</td>
<td>:</td>
</tr>
<tr>
<td>14.</td>
<td>Examination of stomach</td>
<td>:</td>
</tr>
<tr>
<td>15.</td>
<td>Examination of liver</td>
<td>:</td>
</tr>
<tr>
<td>16.</td>
<td>Examination of mesentery</td>
<td>:</td>
</tr>
<tr>
<td>17.</td>
<td>Examination of mammary</td>
<td>:</td>
</tr>
<tr>
<td>18.</td>
<td>Examination of kidneys</td>
<td>:</td>
</tr>
<tr>
<td>19.</td>
<td>Examination of uterus</td>
<td>:</td>
</tr>
<tr>
<td>20.</td>
<td>Examination of bladder</td>
<td>:</td>
</tr>
<tr>
<td>21.</td>
<td>Examination of lymph nodes</td>
<td>:</td>
</tr>
<tr>
<td>22.</td>
<td>Judgement</td>
<td>:</td>
</tr>
</tbody>
</table>

Place:
Date:
Signature of Meat Inspector (with office seal)
Name and Registration Number
ANNEXURE III

(A) GUIDELINE POST-MORTEM INSPECTION — HEADS

These are guideline inspection requirements. Inspection can be made more intensive or less intensive depending upon the outcome of risk analysis.

<table>
<thead>
<tr>
<th>GENERAL</th>
<th>CATTLE (includes calves)</th>
<th>SHEEP &amp; GOATS (includes lambs)</th>
<th>PIGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>View external surfaces. For cattle and pigs view the oral and nasal cavities.</td>
<td>Incise (a)</td>
<td>—</td>
<td>Incise</td>
</tr>
<tr>
<td>Incise (a)</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Incise (a)</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>TONGUE</td>
<td>Palpate (a)</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>OTHER</td>
<td>Inspection for <em>C. bovis</em> (b)</td>
<td>Inspection for <em>C. cellulosae</em> (c)</td>
<td>—</td>
</tr>
</tbody>
</table>

NOTES
- "incise" as used above means to examine by viewing and multiple incision or slicing.
- "palpate" as used above means to view and palpate.
- (a) means inspection is view only in calves up to 6 weeks of age.
- except in calves up to 6 weeks of age, the oesophagus of all cattle and calves should be separated from its attachment to the trachea, and viewed;
- (b) the muscles and the lymph nodes (lymphonodi sub-rhomboidei) beneath one of the two scapular cartilages of all grey or white horses should be examined for melanosis after loosening the attachment of that one shoulder;
ANNEXURE III

(B) GUIDELINE POST-MORTEM INSPECTION — VISCERA

These are guideline inspection requirements. Inspection can be made more intensive or less intensive depending upon the outcome of risk analysis.

<table>
<thead>
<tr>
<th></th>
<th>CATTLE (includes calves)</th>
<th>SHEEP &amp; GOATS (includes lambs)</th>
<th>PIGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>LYMHP NODES</td>
<td>View</td>
<td>View</td>
<td>Palpate (b)</td>
</tr>
<tr>
<td>MESENTERIC</td>
<td>Incise (a)</td>
<td>Palpate</td>
<td>Palpate</td>
</tr>
<tr>
<td>PORTAL</td>
<td>Incise (a)</td>
<td></td>
<td>Incise</td>
</tr>
<tr>
<td>BRONCHIAL &amp; MEDIASTINAL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GASTRO-INTESTINAL TRACT</td>
<td>View (a)</td>
<td>View</td>
<td>View</td>
</tr>
<tr>
<td>SPLEEN</td>
<td>Palpate</td>
<td>View</td>
<td>View</td>
</tr>
<tr>
<td>LIVER</td>
<td>Palpate. View the gall bladder (does not apply to horses). For cattle over 6 weeks of age, incision as deemed appropriate to detect liver fluke.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LUNGS</td>
<td>Palpate. Except in sheep and goats, the bronchi should be opened up by a transverse incision across the diaphragmatic lobe. For horses, the larynx, trachea and main bronchi should be incised.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HEART</td>
<td>View after removal of the pericardium. Additional inspection requirements for cattle over 6 weeks of age are in (b). Conditional additional inspection requirements for pigs are set out in (c).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KIDNEY</td>
<td>View after enucleation.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UTERUS (ADULTS)</td>
<td>Palpate</td>
<td>View</td>
<td>View</td>
</tr>
</tbody>
</table>

NOTES
- "incise" as used above means to examine by viewing and multiple incision or slicing.
- "palpate" as used above means to view and palpate.
- (a) means inspection is view only in calves up to 6 weeks of age.
- (b) means incise if any lesions were observed in the submaxillary lymph nodes.
- (c) the hearts of all cattle and calves over the age of 6 weeks should be inspected for Cysticercus bovis either by making one or more incisions from base to apex or by evertting the heart and making shallow incisions that enable the cardiac valves and muscle tissue to be inspected — this inspection of the heart should also be undertaken in calves up to 6 weeks of age from areas where Cysticercus bovis is a common post-mortem inspection finding;
- (c) the heart of all pigs derived from areas where there is a risk of Cysticercus cellulosae being present should be opened up and a deep incision made into the septum.
ANNEXURE III

(C) GUIDELINE POST-MORTEM INSPECTION — CARCASSES

These are guideline inspection requirements. Inspection can be made more intensive or less intensive depending upon the outcome of risk analysis.

<table>
<thead>
<tr>
<th></th>
<th>CATTLE</th>
<th>SHEEP &amp; GOATS</th>
<th>PIGS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(includes calves)</td>
<td>(includes lambs)</td>
<td></td>
</tr>
<tr>
<td>GENERAL</td>
<td>Examine carcases (including musculature, exposed bone, joints, tendon sheaths etc) to determine any disease or defect. Attention should be paid to bodily condition, efficiency of bleeding, colour, condition of serous membranes (pleura and peritoneum), cleanliness and presence of any unusual odours.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LYMPH NODES</td>
<td>Palpate (a)</td>
<td>Palpate</td>
<td>Palpate</td>
</tr>
<tr>
<td>SUPERFICIAL</td>
<td>Palpate</td>
<td>Palpate</td>
<td>Palpate</td>
</tr>
<tr>
<td>INGUINAL</td>
<td>—</td>
<td>Palpate</td>
<td>—</td>
</tr>
<tr>
<td>EXTERNAL &amp; INTERNAL</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>ILIAC</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>PRE-PECTORAL</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>POPLITEAL</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>RENAL</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>OTHERS</td>
<td>Palpate</td>
<td>Palpate</td>
<td>Palpate</td>
</tr>
<tr>
<td></td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>—</td>
<td>—</td>
<td>Palpate</td>
</tr>
</tbody>
</table>

- (a) means incise as a routine when udder is, or has been, in lactation.
- (b) means iliac nodes in pigs.