

CODEX ALIMENTARIUS COMMISSION



Food and Agriculture
Organization of the
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World Health
Organization

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PROPOSED DRAFT GUIDELINES FOR THE CONTROL OF NONTYPHOIDAL SALMONELLA spp. IN BEEF AND PORK MEAT

Comments of European Union, Ghana, India, Mexico, Nigeria, Philippines, Senegal and Thailand

EUROPEAN UNION

The EUMS would like to submit the specific comments outlined below:

Specific comments

Main document

- Paragraph 4, first bullet point last sentence,
 - Proposal: "They are usually prescriptive and may differ considerably between countries."

Justification: Several other paragraphs already express the flexibility for selecting measures (e.g. paragraphs 8 and 10) and often control measures are very similar (everybody should apply most GHP measures proposed in the guidelines). Deletion of this part, or at least the word "considerably" is therefore proposed.

- Paragraph 4, second bullet point last sentence,
 - Proposal to delete: "They have an effect on consumer protection, but the actual degree of protection is unknown."

Justification: This is not only applicable to hazard-based control measures in our views and therefore does not belong here. The added value of this statement in the guidelines is not clear.

Annex I (beef)

- Title:
 - Proposal: "Specific Control Measures for Beef"

Justification: In line with paragraph 22 of the main document. It also underlines that there are general control measures to be considered e.g. in Section 11 of the main document.

- Section 7.2. table: Footnote numbers should be updated.
- Paragraph 15 (b):
 - The following change is proposed: "If food chain information is available, indicating the presence of Salmonella on the herds with a high incidence of Salmonella—appropriate measures can be considered such as segregating the animals and processing them segregated and processed at the end of the production day, reduction of the slaughter speed to better prevent faecal contamination and the application of additional hazard-based control measures on the carcasses."

Justification: Additional control measures should be recommended for this known high risk group.

- Paragraph 18:
 - The following change is proposed: 18. Routinely cleaning the unloading lairage areas, pens and water sources may help reduce cross-contamination. Cleaning of areas when stock is not in the pens and walkways could avoid contamination of cattle through aerosols.

Justification: unloading docks are already covered in the previous point (para 14), this should be about lairage.

- Paragraph 20 (a) last sentence:
 - It is proposed to put this sentence in a separate bullet point (b).

Justificaton: Segregation of dirty animals and limiting overspray of water are different measures and should be separated in the document.

- Paragraph 21:
 - The EUMS would like to request clarification on whether the reference to the reduction of the bacterial load is general or specific for *Salmonella*.

Justification: If specific, it might not be considered as a hazard-based measure.

- Paragraph 33b):
 - It is proposed to delete the term "**decontamination**" in the second sentence.

Justification: The EUMS do not understand the meaning of 'decontamination' in this paragraph.

- Paragraph 55:
 - Proposal: Merge with paragraph 53 (or put after paragraph 53).

Justification: Both paragraphs are on bung bagging, which is in our understanding a GHP-based control measure.

- Paragraph 57:
 - A new measure b) to prevent the introduction of contamination into the carcass during brisket opening could be considered:

b. If the gastrointestinal tract has been punctured causing a major contamination no further work should be carried out on the carcass until it has been removed from the slaughterline otherwise the risk of cross contamination will increase significantly.

- Paragraph 59 :
 - The following changes are proposed: Changing or ~~sanitizing~~ disinfecting the weasand rod between each carcass.
 - Cleaning the weasand to minimize cross-contamination, and chilling it quickly to prevent the growth of *Salmonella* ~~Salmonella~~.

Justification: Editorial amendment: Codex language and bacterial names in italics (also to be adjusted in other areas in the document, e.g. 61d, 97, 105, 110)

- Paragraph 65:
 - The following change is proposed: "65. This is the point in the process where detailed inspection of carcasses is carried out. ~~so it is a key point to characterize a healthy carcass.~~"

Justification: There seems to be no added value of this wording. *Salmonella* is not visual.

- Paragraph 67
 - An additional paragraph or an additional paragraph is proposed: "**The need for routine palpations and incisions, with the potential risk of *Salmonella* cross-contamination, should be weighed against the potential impact on public or animal health by hazards for whom these techniques are applied during post-mortem inspection.**"

Justification: a risk-based approach should be recommended balancing different risk depending on the epidemiological situation of different hazards.

- Section 9.13 – 9.14
 - A new section with hazard based control measures should to be added after post-mortem inspection and before chilling, following the same scheme as the previous chapters) should be added with reference that these are listed under step 8 – dehydrating.

Justification: The guidelines do not suggest hazard-based control measures (decontamination) of carcasses after evisceration and splitting. It is not clear why this is the case since scientific advice exists on decontamination at this stage (e.g. EFSA opinions) and such practice seems to be common in many countries.

- Paragraph 70:
 - The following change is proposed: "70. Implement temperature control and ~~sanitation~~ cleaning and disinfecting procedures (e.g. define and monitor refrigeration parameters so that carcasses reach a temperature that will prevent the growth of *Salmonella*)."

Justification: Editorial amendment.

- Paragraph 79:
 - The following change is proposed: "79. Equipment used for this operation should be adequately ~~maintenance~~ maintained and adjusted."

Justification: Editorial amendment.

- Paragraph 88:
 - Propose to put earlier in the document for example at step 14

Justification: The recommendation is on carcasses, while this is a section on packaging finished products.

- Paragraph 109: Proposal to delete this paragraph.

Justification: The section is about mechanical tenderization, therefore, there would not be injection of marinade or brine.

- Paragraph 113, d):
 - The EUMS propose the following addition: "thorough cooking, where appropriate."

Justification: Due to certain consumption habits, beef is not always thoroughly cooked.

Annex II (pork)

- Title
 - Proposal: "Specific Control Measures for Pork"

Justification: In line with paragraph 22 of the main document. It also underlines that there are general control measures to be considered e.g. in Section 11 of the main document.

- **General editorial comments:** put again "*Salmonella*" in italics (para 22, 27, 37, 102) vs microbial not (para 39) + replace sanitizing and similar by disinfecting and similar (para 20, 26).
- Section 7.2, table: Footnote numbers should be updated.
- Paragraph 16 last sentence:
 - The following change is proposed: "For example the establishment may choose to segregate pigs with a high known incidence of *Salmonella* at the end of the day, reduce the slaughter speed to better prevent faecal contamination and/or apply additional hazard-based control measures on the carcasses."

Justification: Additional control measures should be recommended for this known high risk group.

- Paragraph 24:
 - There is repetition; it is proposed to delete either the 1st or 2nd sentence.
- Paragraph 25:
 - The following change is proposed: "This is the point in the process where the animal is bled. Regardless of the slaughter method, it is important for the establishment to minimize contamination of the carcass during any cut made at this step, avoiding any contamination by opening where the pig is rendered unconscious."

Justification: Editorial amendment.

- Paragraph 26:
 - It is suggested to replace "limit carcass contact with the floor" by "avoid carcass contact with the floor"

Justification: A slightly stronger wording seems appropriate from a risk point of view.

- Paragraph 33:

- "33. At the end of the shift, remove all organic material and debris from de-hairing equipment. Consider the importance of mechanical action and cleaning. Chemical cleaners and disinfectants should be selected based on several factors including but not limited to the soil type, equipment materials and water hardness."
- It should be clarified, what is meant with "soil type"?
- Paragraph 75:
 - The following change is proposed: "75. This is the point in the process where inspection of carcasses is carried out. , ~~so it is a key point to characterize a healthy carcass.~~"

Justification: No added value. *Salmonella* is not visual.

- Paragraph 77
 - An additional paragraph or an additional paragraph is proposed: "The need for routine palpations and incisions, with the potential risk of *Salmonella* cross-contamination, should be weighed against the potential impact on public or animal health by hazards for whom these techniques are applied during post-mortem inspection."

Justification: a risk-based approach should be recommended balancing different risk depending on the epidemiological situation of different hazards.

GHANA

Comments: Ghana wishes to thank the eWG for developing the Guidelines. We support the adoption of the Proposed Draft Guidelines for the Control of Nontyphoidal *Salmonella* spp. in Beef and Pork Meat at Step 5/8.

Rationale

The document is comprehensive and adequately addresses important food safety issues associated with beef and pork. The Guidelines thoroughly articulate important hazard-based and GMP-based control measures which are critical for the control of nontyphoidal *Salmonella* spp in beef and pork meat. The Guidelines are therefore useful risk management tool capable of contributing to public health protection. Moreover concerns which were initially raised on formatting and clarity have also been addressed. We believe the document is now ready to be advanced in the stepwise process.

INDIA

I. Title of the document

It is proposed to amend the title of the document as under:

"PROPOSED DRAFT GUIDELINES FOR THE CONTROL OF NONTYPHOIDAL SALMONELLA SPP. IN BEEF BOVINE AND PORK MEAT"

Consequential changes will also be required to be carried out in the rest of the document including related definitions.

Rationale: The document appears to exclude buffalo meat which is traded in large quantities internationally. The guidance in this document should also be applicable to buffalo meat. The term 'Bovine' covers both cow and buffalo species. Besides, UNECE STANDARD (Edition 2013) also uses the term 'bovine' to refer to beef which covers meat of both cow and buffalo species.

II. Para 7.1 Generic flow diagram for application of control measures

Process Flow Diagram 1: Primary Production to Consumption- Beef

1. Tying of oesophagus step (Tying the Weasand) should come before dehiding and after head removal to prevent rumen contents from contaminating the carcass.

Rationale: Tying of oesophagus before dehiding and after head removal can give advantage to prevent rumen contents from contaminating the carcass. This step should, therefore, come before dehiding.

2. Include ante-mortem step at lairage level.

Rationale: Reference to Ante-Mortem benefits is included in paragraph 22 of the document. Hence, the step should be reflected in the flow diagram.

3. Include final wash of the carcass as a step in-between Post Mortem Inspection and Chilling.

Rationale: **Washing** of carcass must be added to reduce bacterial load after post mortem inspection and before chilling.

The 'Process Flow' Diagram 1: Primary Production to Consumption – Beef' should be amended suitably.

MEXICO

| Párrafo | COMENTARIOS | JUSTIFICACIÓN |
|---------|--|--|
| 7 | <p>Este formato:</p> <ul style="list-style-type: none"> Demuestra la gama de enfoques de las medidas de control para <i>Salmonella</i>. Ilustra la relación entre las medidas de control aplicadas en los distintos pasos de la cadena alimentaria. Pone de <u>en evidencia que los</u> relieve las brechas de datos <u>son insuficientes</u>, en términos de la justificación/validación científica de las medidas de control. | Proponemos las modificaciones con el objetivo de dar mayor claridad a la traducción y redacción de este párrafo. |
| 9 | <p>2. OBJETIVOS</p> <p>El objetivo de estas Directrices es proporcionar información a los gobiernos y a la industria sobre <u>las prácticas que se pueden usar para prevenir, eliminar o reducir los niveles</u> control de <i>Salmonella</i> no tifoidea en carne de bovino y de cerdo para disminuir las enfermedades transmitidas por los alimentos y garantizar, al mismo tiempo, prácticas equitativas en el comercio internacional de alimentos. (...)</p> | Méjico sugiere mover la última línea del párrafo 11 al párrafo 10, ya que en esa frase se describe mejor el objetivo del documento. |
| 10 | <p>Estas directrices no establecen límites cuantitativos para <i>Salmonella</i> en la carne de bovino y de cerdo en el comercio internacional. Más bien siguen el ejemplo del marco general del Código de prácticas de higiene para la carne (CAC/RCP 58-2005) y proporcionan un marco "<u>favorable</u>" propiciador que puede ser utilizado por los países para establecer medidas de control adaptadas a su situación nacional.</p> | Comentario a la traducción al español. México sugiere emplear el término " favorable " como traducción de "enabling", con el objetivo de dar mayor claridad a la traducción de este párrafo. |
| 11. | <p>3.1. ÁMBITO DE APLICACIÓN</p> <p>Estas Directrices se aplican a toda <i>Salmonella</i> no tifoidea que pueda contaminar la carne de bovino y de cerdo (<i>Bos indicus</i>, <i>Bos taurus</i> y <i>Sus scrofa domesticus</i>) y provocar enfermedades transmitidas por los alimentos. El objetivo principal es brindar información sobre las prácticas que se pueden usar para prevenir, eliminar o reducir los niveles de <i>Salmonella</i> no tifoidea en la carne de bovino y de cerdo fresca⁴.</p> | Méjico sugiere mover la última línea del párrafo 11 al párrafo 10 (a la sección de objetivos). |
| | <p>4. DEFINICIONES</p> <p>Ganado <u>bovino</u>: Animales de las especies <i>Bos indicus</i> y <i>Bos taurus</i>.</p> <p>Cerdos <u>Ganado porcino</u>: Animales de la especie <i>Sus scrofa domesticus</i>.</p> | <p>Méjico sugiere utilizar los términos "Ganado bovino" y "Ganado porcino" para hacer referencia a ambos grupos. Consideramos que éstos son generales y permiten referirse a las especies definidas en cada uno.</p> <p>Asimismo se sugiere homologarlos en todo el documento, ya que se usa indistintamente res o vacuno en el caso del ganado bovino, y cerdo en el caso del ganado porcino.</p> |
| | <p>ANEXO I</p> <p>MEDIDAS DE CONTROL PARA LA CARNE DE BOVINO (para las secciones 7 a 10)</p> <p>Diagrama de flujo del proceso 1: Desde la producción primaria hasta el consumo - Carne de bovino</p> <pre> graph TD A[15. Inspección post mortem] --> B[NUEVO: Lavado] B --> C[16. Enfriado] </pre> | <p>Consideramos que es importante incluir en el Diagrama de flujo del proceso un paso entre el 15 y 16 referente al <u>Lavado</u>, debido a que el lavado de la canal permite eliminar manchas de sangre y suciedad visible que pueda favorecer el desarrollo de <i>Salmonella</i>. El lavado no sustituye las buenas prácticas de higiene durante el sacrificio y el faenado.</p> |

| | | | | | | | | | | | |
|--|---|--|-----------------------------------|---|--|---|--|-------------------|---|---|---|
| | <p>Disponibilidad de medidas de control en pasos específicos del flujo del proceso</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%; text-align: center;">Paso del proceso</td><td style="width: 30%; text-align: center;">Medidas de control basadas en BPH</td><td style="width: 30%; text-align: center;">Medidas de control basadas en la peligrosidad</td></tr> <tr> <td>15. Inspección post mortem ↓ NUEVO: Lavado ↓</td><td style="text-align: center;">✓</td><td></td></tr> <tr> <td>16. Enfriado ↓</td><td style="text-align: center;">✓</td><td style="text-align: center;">✓</td></tr> </table> | Paso del proceso | Medidas de control basadas en BPH | Medidas de control basadas en la peligrosidad | 15. Inspección post mortem ↓ NUEVO: Lavado ↓ | ✓ | | 16. Enfriado ↓ | ✓ | ✓ | <p>En consecuencia de la propuesta de la inclusión del paso de Lavado en el “Diagrama flujo del proceso 1: Desde la producción primaria hasta el consumo - Carne de bovino”, se debe agregar en la tabla, entre el punto 15 y 16, y se debe marcar en “Medidas de control basadas en BPH”.</p> |
| Paso del proceso | Medidas de control basadas en BPH | Medidas de control basadas en la peligrosidad | | | | | | | | | |
| 15. Inspección post mortem ↓ NUEVO: Lavado ↓ | ✓ | | | | | | | | | | |
| 16. Enfriado ↓ | ✓ | ✓ | | | | | | | | | |
| 11 | <p>9. MEDIDAS DE CONTROL PARA EL PROCESAMIENTO (PASOS 3 A 19)</p> <p>Deberían aplicarse medidas generales de control, inclusive las establecidas en el <i>Código de prácticas de higiene para la carne</i> (CAC/RCP 58-2005), para evitar la contaminación (...)</p> <p>h. El agua que se emplee para descontaminar o limpiar y desinfectar el equipo debería debe ser potable. En pasos previos al aturdimiento, puede utilizarse agua limpia.</p> | <p>Consideramos que el uso de agua potable en este punto debe ser una actividad obligatoria en todas las fases del procesamiento, en función de que se trata de una medida de control de relevancia particular en el control de la <i>Salmonella</i>.</p> <p>En el documento en inglés sustituir <i>should</i> por <i>must</i>.</p> | | | | | | | | | |
| | <p>NUEVO. Esta es la fase del proceso en que se procede a lavar la canal para eliminar manchas de sangre y suciedad que pudiera favorecer el desarrollo de <i>Salmonella</i>. El lavado no sustituye las buenas prácticas de higiene durante el faenado y el sacrificio.</p> | <p>En consecuencia de la propuesta de agregar el paso de “Lavado” en el Diagrama de flujo del proceso.</p> | | | | | | | | | |
| | <p>9.XX.1 Medidas de control basadas en BPH</p> <p>NUEVO: Se debe lavar el interior y exterior de las canales, usando la presión de agua potable suficiente para eliminar la contaminación visible. Debería usarse equipo apropiado para asegurar el contacto directo del agua con la canal.</p> <p>NUEVO: Es importante verificar que el agua utilizada en este proceso sea potable para evitar la contaminación de las canales. Si el agua no cumple con las especificaciones sanitarias debe ser tratada para potabilizarla.</p> | <p>Se propone incluir medidas basadas en BPH para el Lavado, en función de que el siguiente paso es el enfriamiento, es conveniente realizar esta práctica, ya que no existe un tratamiento de reducción posterior.</p> | | | | | | | | | |
| | <p>ANEXO II</p> <p>MEDIDAS DE CONTROL PARA LA CARNE DE CERDO (para las secciones 7 a 10)</p> <p>Diagrama de flujo del proceso 1: Desde la producción primaria hasta el consumo - Carne de cerdo</p> <pre> graph TD A[17. Inspección post mortem] --> B[NUEVO: Lavado] B --> C[18. Enfriado] </pre> | <p>Consideramos que es importante incluir en el Diagrama de flujo del proceso un paso entre el 17 y 18 referente al Lavado, debido a que el lavado de la canal permite eliminar las manchas de sangre y suciedad visible que pueda favorecer el desarrollo de <i>Salmonella</i>. El lavado no sustituye las buenas prácticas de higiene durante el sacrificio y el faenado.</p> | | | | | | | | | |

| | <p>Disponibilidad de medidas de control en pasos específicos del flujo del proceso</p> <p>Paso del proceso</p> <p>17. Inspección post mortem ↓ NUEVO: Lavado ↓ 18. Enfriado ↓</p> <table border="1"> <thead> <tr> <th>Medidas de control basadas en BPH</th><th>Medidas de control basadas en la peligrosidad</th></tr> </thead> <tbody> <tr> <td>✓</td><td></td></tr> <tr> <td>✓</td><td></td></tr> <tr> <td>✓</td><td>✓</td></tr> </tbody> </table> | Medidas de control basadas en BPH | Medidas de control basadas en la peligrosidad | ✓ | | ✓ | | ✓ | ✓ | <p>En consecuencia de la propuesta de la inclusión del paso de Lavado en el “Diagrama flujo del proceso 1: Desde la producción primaria hasta el consumo - Carne de bovino”, se debe agregar en la tabla, entre el punto 17 y 18, y se debe marcar en “Medidas de control basadas en BPH”.</p> |
|-----------------------------------|--|--|---|---|--|---|--|---|---|---|
| Medidas de control basadas en BPH | Medidas de control basadas en la peligrosidad | | | | | | | | | |
| ✓ | | | | | | | | | | |
| ✓ | | | | | | | | | | |
| ✓ | ✓ | | | | | | | | | |
| | <p>9.X PASO NUEVO: Lavado</p> <pre> graph LR 1((1)) --> 3((3)) 3 --> 30((30)) 30 --> 36((36)) 30 --> PD[Procesamiento] PD --> 36 subgraph PD [Procesamiento] direction TB PD1[Producción primaria] --- 1 PD2[Canales de distribución] --- 36 end </pre> <p>NUEVO. Esta es la fase del proceso en que se procede a lavar la canal para eliminar manchas de sangre y suciedad que pudiera favorecer el desarrollo de <i>Salmonella</i>. El lavado no sustituye las buenas prácticas de higiene durante el faenado y el sacrificio.</p> | <p>En consecuencia de la propuesta de agregar el paso de “Lavado” en el Diagrama de flujo del proceso, respecto a agregar el paso de Lavado.</p> | | | | | | | | |
| | <p>9.XX.1 Medidas de control basadas en BPH</p> <p>NUEVO: Se debe lavar el interior y exterior de las canales, usando la presión de agua potable suficiente para eliminar la contaminación visible. Debería usarse equipo apropiado para asegurar el contacto directo del agua con la canal.</p> <p>NUEVO: Es importante verificar que el agua utilizada en este proceso sea potable para evitar la contaminación de las canales. Si el agua no cumple con las especificaciones sanitarias debe ser tratada para potabilizarla.</p> | <p>Consideramos que es importante incluir en el Diagrama de flujo del proceso un paso entre el 17 y 18 referente al Lavado, debido a que el lavado de la canal permite eliminar las manchas de sangre y suciedad visible que pueda favorecer el desarrollo de <i>Salmonella</i>. El lavado no sustituye las buenas prácticas de higiene durante el sacrificio y el faenado.</p> | | | | | | | | |

NIGERIA

Nigeria supports adoption of the Proposed Draft Guidelines of the Control of Nontyphoidal *Salmonella* spp. in Beef and Pork Meat at Step 5/8.

Rationale: The document is comprehensive and thoroughly addresses the key food safety issues associated with beef and pork.

PHILIPPINES

General Comments:

The Philippines supports the current three-part structure and format of the document. We also appreciate the provision that the developed guideline is a generic document and it provides flexibility in its use and application to national competent authorities.

We also acknowledge the effort made by the FAO/WHO for the literature review on control measures from primary production and consumption. We would continue to recommend for the development of risk profiles of nontyphoidal *Salmonella* spp. In beef and pork meat as the organism is considered globally as one of the leading causes of foodborne illness.

Finally, the Philippines recommends that the said guideline progress to Step 5.

SENEGAL

Problème et justification: Toutes les questions scientifiques relatives à la sécurité, à la fois du point de vue du format et la clarté ont été considérées, ne laissant aucune de ces questions non résolues. Même si la version finale du document de l'OIE référencé n'est pas encore prêt, il est considéré que l'OIE traite essentiellement de la santé animale et le non-achèvement du document de référence ne doit pas contrevenir à une des questions de sécurité des aliments dans l'avant-projet Lignes directrices du contrôle non typhique, *Salmonella* spp. du boeuf et la viande de porc (CX / FH 15/47/5). Le document est complet et traite de manière approfondie les questions clés de la sécurité des aliments liées à la viande bovine et de porc. La plupart, sinon la totalité, des mesures de contrôle qui sont importantes pour le contrôle de non typhirique *Salmonella* spp. dans la viande bovine et la viande de porc ont été abordées. Des mesures de contrôle à base de GMP fondées sur le danger ont été bien articulée pour assurer la protection de la santé et la sécurité publique.

Positions : Le Sénégal soutient l'adoption de l'Avant-projet du contrôle de *Salmonella* spp. non typhi dans la Viande de boeuf et de porc à l'étape 5/8.

Commentaire général: Le format actuel de trois sections principales (section commune, les mesures de contrôle sur la viande bovine et des mesures de contrôle sur le porc) rend le document convivial.

THAILAND

General comment

Thailand acknowledges the effort of the working group led by the United States and co-chaired by Denmark in preparing this document. Generally, Thailand supports the guidelines that have been developed for the Control of Nontyphoidal *Salmonella* spp. in Beef and Pork Meat for the adoption at Step 5/8.

We would like to provide some specific comments on the following issues:

3.1 Scope (paragraph 11)

We would like to seek a clarification on the word 'beef and pork meat' in paragraph 11. Does 'meat' specified in the Scope include offal as appeared in the definition of meat in accordance with Code of Hygienic Practice for Meat (CAC/RCP 58-2005) as follows:

Meat - All parts of an animal that are intended for, or have been judged as safe and suitable for, human consumption

6. Risk profiles (paragraph)

We would like to seek a clarification on the justification for the absence of risk profile.

Annex I Control Measures for Beef

Process Flow Diagram Primary Production to Consumption – Beef

We would like to add 'Ante Mortem Inspection' as an extra Step before Step 5 Stunning, or putting the following detail under GHP-based control measure of Step 4 Lairage, where appropriate.

Ante mortem inspection is the process where the animals can be observed both collectively and individually at rest and motion, so it is a key point to characterize healthy animal before entering the processing line.

Rationale: Ante-mortem inspection is an important step carried out in slaughterhouse in order to ensure animal health and identify sick animals before entering the process.

Step 3 Receive and Unload (paragraph 15)

We would like to seek a clarification on the word 'mud score' since we are not familiar with the term. Does it need to be defined in Section 4 Definitions or briefly elaborate in paragraph 15(d)?

Step 17 Carcass fabrication (paragraph 76)

We would like to propose a modification to the sentence as follows:

Prevent cross-contamination from slaughter operations by maintaining adequate airflow **a positive air pressure in carcass fabrication area relative to other areas in the slaughter operations.**

Rationale: to be more specific and clarify about adequate airflow

Annex II Control Measures for Pork

Process Flow Diagram: Primary Production to Consumption – Pork

Step 4 Lairage

We would like to add 'Ante Mortem Inspection' as an extra Step before Step 5 Stunning, or putting the following detail under GHP-based control measure of Step 4, where appropriate.

Ante mortem inspection is the process where the animals can be observed both collectively and individually at rest and motion, so it is a key point to characterize healthy animal before entering the processing line.

Rationale: Ante-mortem inspection is an important step carried out in slaughterhouse in order to ensure animal health and identify sick animals before entering the process.

Step 16 Head dropping/Removal

9.14.2 Hazard based control measure

We would like to separate the Hazard-based control measure (paragraph 74) from Step 16 Head dropping/Removal to be under an extra step of 'Carcass wash'

Rationale: we consider 'carcass wash' as one of the critical control point of the slaughter house for pig.