

ADVISORY COMMITTEE ON THE MICROBIOLOGICAL SAFETY OF FOOD**Disinfection of knives**

1. Under new EU food hygiene regulations, slaughterhouses and cutting plants must have facilities for disinfecting tools with hot water supplied at not less than 82°C, or an alternative system having an equivalent effect¹. The tools include knives for bleeding, dressing carcasses and cutting of meat. Officials carrying out post-mortem inspections will also use the facilities.
2. The flexibility for alternative equivalent methods was introduced by the European Commission to reflect the 2001 Opinion of the Scientific Committee on Veterinary Measures relating to Public Health for the Cleaning and Disinfection of Knives in the Meat and Poultry Industry (Annex 1). This paper describes the hygiene procedures and issues and considers possible alternatives. It highlights (6.1) the importance of pre-disinfection cleaning and recommends (9.3) the option of using water at temperatures lower than 82°C in combination with chemical disinfectants as a satisfactory alternative.
3. The meat industry may submit applications for alternative systems to the Agency's Veterinary Director for consideration. The British Meat Producers Association (BMPA) has made an approach following work carried out in Australia. The first paper (Annex 2)² concerns a company proposal using water at 60°C and two knives used alternatively to ensure longer immersion. It is understood that the Australian Meat Standards Committee has accepted this proposal and that the relevant State authority will audit the new arrangement. A second paper (Annex 3)³ indicates (pages 2-4) that, in laboratory trials alternative procedures such as 72°C/15 s and 75°C/10 s led to 3-4 log₁₀ reductions in *E. coli*. It suggests that different procedures may be effective at different points of the process and proposes a 3 log₁₀ reduction in *E. coli* as a performance standard for knife disinfection.
4. While it is open for any company to propose alternative procedures, if it were possible to agree a 'generic' alternative to water at 82°C, e.g. use of a two-knife system with rinsed knives immersed at a temperature x°C for y seconds; such a procedure, if included in a HACCP plan, could be agreed at local slaughterhouse level by the Official Veterinarian (taking into account any implications for meat inspection). The advice of the Committee is sought on the requirements for 'approval' of generic or case by case alternatives.

¹ EC Regulation 853/2004 – For red meat in Annex III, Chapter II, point 3 in slaughterhouses and Annex III, Chapter III, point 5 for cutting plants. For white meat in Annex III, Section II, Chapter II, point 3 for slaughterhouse and Annex III, Section II, Chapter III, point 1(e) for cutting plants.

² 'An alternative process for cleaning knives used on meat slaughter floors' by I Eustace, J Midgley, C Giarrusso, C Laurent and J Sumner.

³ 'Validation of HACCP in red meat processing' by I Jenson, T Maguire and J Sumner.

Action needed

- Does the Committee consider that a performance standard for knife sterilisation of a 3 log₁₀ reduction in E. coli is appropriate, provided that visible contamination is removed prior to immersion?
- Does the Committee agree that a generic 'approval' is an acceptable approach?
- What further data, if any, would the Committee consider it necessary for the industry to provide to support alternative time/temperature/hygiene parameters in place of water at 82° C?

**Secretariat
December 2006**

Annex 1 – Opinion of the Scientific Committee on Veterinary Measures relating to Public Health can be found at the following link:

http://ec.europa.eu/food/fs/sc/scv/out43_en.pdf