



Meat Industry Association of New Zealand (Inc)

Background Paper

The Evolution of Meat Inspection

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I. Introduction

1. This paper has been prepared to provide background information around the role of 'meat inspection' in the modern export meat processing industry. In doing so, the paper does not seek to undervalue the importance of meat inspection, but rather aims to provide a fuller picture of where the various aspects of this role sit within the New Zealand meat industry's overall quality assurance framework.
2. In order to fully appreciate this, it is necessary to understand the way in which domestic and international standards for meat inspection have evolved over the past decade and to also understand the current regulatory philosophy of our major trading partners.

II. What is Meat Inspection?

3. Traditionally, meat inspection involved two primary tasks – ante-mortem and post-mortem inspection. Formal, State-run meat inspection services covering these two tasks emerged towards the end of the 19th Century. They were in part conceived as industry was viewed as untrustworthy but they were also founded on the idea that stock displaying signs of disease should not be slaughtered (hence ante-mortem inspection) and that internal pathological or physical abnormalities indicated that meat was unsuitable for human consumption (hence post-mortem inspection).¹ Ante mortem inspection was also viewed as a safeguard against dead animals being processed for human consumption.
4. Until relatively late in the 20th Century meat inspection relied exclusively on organoleptic inspection. That is, meat inspectors relied on sight, touch and smell alone to identify and remove perceived food safety hazards. As will be seen below, however, the role and importance of meat inspection has changed significantly in the last few decades of the 20th Century due to a realisation that human senses cannot detect the presence of what are now recognised as the more significant food safety hazards.

III. International Environment

The Background to Change

5. By the early 1970's, the meat hygiene expectations of many nations, including the United States ('US') and the European Union ('EU') had begun to change in response to a heightened awareness of food safety issues. Different countries took very different approaches to regulating to achieve their expectations:

The US wanted clean meat free of residues; the EC wanted healthy meat free of disease. The US took a macroscopic 'scratch and sniff' approach to processes to achieve 'wholesome meat' whatever the species. The EC took the microscopic approach, focussing on hygienic construction, and species-specific inspections to detect disease.²

6. As discussed further below, the demands of these two markets created a huge challenge for the New Zealand export meat industry. Part of New Zealand's response was to actively encourage (and ultimately Chair) a specialist committee of the Codex Alimentarius Commission ('Codex') tasked with developing international standards for meat hygiene and trade.

¹ Robinson, D, *No News is Good News: A History of New Zealand's Meat Hygiene Service*, Wellington, 2006 at page 21.

² Calder, M and Tyson, J, *Meat Acts: The New Zealand Meat Industry 1972-1997*, Wellington 1999 at page 40.

7. In 1972 Codex established a Meat Hygiene Committee to perform this task. The Committee has met only 11 times since 1972, as it convenes only when it becomes necessary to update relevant standards and then enters into abeyance until it is again required. New Zealand has chaired the Committee since its inception, and continues to hold the Chair, although the Committee has recently entered into another period of inactivity having completed a new Code of Hygiene Practice for Meat in 2005 (which is discussed in greater detail below).
8. In large part due to frustration at significant cost of meeting meat inspection requirements imposed by our foreign markets, New Zealand began a programme of examining the scientific basis for traditional meat inspection procedures in 1985. The underlying premise was quite simple. If a procedure does not produce any meaningful benefit, requiring that task to be performed is an unnecessary expense and detracts from the resources available to address more significant food safety issues.
9. The inspection of sheep heads and tongues provides a good example of both the reasons why New Zealand embarked on such an approach and the efficiencies it can realise. The EU insisted that MAF Meat Division introduce a requirement in 1976 that all sheep heads were to be skinned and the head and tongues inspected post-slaughter. This resulted in every sheep slaughter chain needing additional manning and inspectors to meet this requirement.
10. In a changing environment with the beginning of an impetus to challenge unsustainable and unjustifiable importing country requirements, MAF Meat Division scientists undertook a study to challenge the scientific justification of the requirement, with the results of the study published in 1986. The study surveyed some 326,618 lambs and 7947 adult sheep, and ultimately concluded that in no instance did skinning heads and head inspection reveal any issues that would have led to condemnation of a carcass that was otherwise passed as fit for human consumption. Head skinning and head and tongue inspection, therefore, did not materially enhance the safety of New Zealand sheepmeat and represented an unnecessary cost.³
11. By the mid-1990s, it was becoming clear that New Zealand's science-based approach was gaining momentum. This was assisted in no small part by the emergence of broad-reaching international food safety issues such as *E-coli O157H7*, which created an environment in which the effectiveness of traditional approaches to food safety generally, and meat hygiene (including inspection) in particular, had to be questioned. In a 1995 paper on ensuring the continued relevance of New Zealand's meat hygiene, the Ministry of Agriculture and Fisheries (as it then was) noted:

Traditional meat inspection has tended to focus on organoleptic inspection and removal of visual pathological defects from the food chain. The true risk of these defects in human health terms has not been quantified in the past but is now considered to be of far less importance than the microbiological contamination with pathogens derived from the gastro-intestinal tract or skin of the animal or from the operator that occurs during the slaughter and dressing process. This fact is increasingly being acknowledged by New Zealand's major trading partners and there are moves to address this gap in meat inspection programmes internationally.⁴

12. The paper goes on to say:

It is increasingly accepted that the bulk of pathological defects are of an aesthetic nature and have no impact on public health. Regulators are therefore beginning to view these

³ Robinson, op cit, at page 113.

⁴ MAF Regulatory Authority (Meat and Seafood), *Food Safety: Maintaining a Relevant Meat Inspection Programme*, Wellington, 1995 at page 5.

defects as primarily a commercial quality problem when compared with the microbiological contamination of pathogens of gastro-intestinal/skin/operator origin. Government employed veterinarians are giving way to government lay inspectors and they are in turn giving way to industry personnel carrying out the same function, under government oversight and with technical support to a greater or lesser degree.⁵

13. In a similar vein, in a 1994 report to the then-Ministry of Agriculture and Fisheries, Price Waterhouse concluded that:

...an international climate is now emerging which will allow the devolvement from government employer inspectors (MQM MS) to other forms of controls, involving other organisational arrangements.⁶

14. As will be discussed further below, this change in international thinking was entirely complementary to New Zealand's long-standing and unwavering approach to international trade negotiations, namely that international trade should be soundly based on science and that non-scientific barriers to trade should be challenged. New Zealand also recognised that thorough scientific evaluation of traditional meat inspection practices provided an opportunity to better target regulatory resources, and to reduce costs to industry thereby making it more internationally competitive:

[MAF] and industry have a long-term strategy that has involved scientific research into risk management issues, and negotiation with the EU and US to maintain the pace of liberalisation. This has put New Zealand at the forefront of application of risk management principles to challenge and change inspection and hygiene standards and practises that have more cost-effective alternatives, or are inappropriate i.e. do not pass a cost/benefit test.⁷

Adoption of Science-based Approach by the WTO and International Standard Setting Bodies

15. The establishment of the World Trade Organisation ('WTO') on 1 January 1995 – arising out of the Uruguay Round of negotiation on the General Agreement on Tariffs and Trade – has had a significant impact on the international meat hygiene standards.
16. The primary reason for the WTO's existence is to facilitate and promote freer, rules-based global trade. Key elements of the 'rules' of international trade are contained within the WTO's Agreement on the Application of Sanitary and Phytosanitary Measures ('the SPS Agreement'), which came into force in 1995 with the establishment of the WTO.
17. The SPS Agreement recognises that individual governments have a sovereign right to set appropriate levels of health protection for their populations, while at the same time the Agreement seeks to prevent this right being exercised for protectionist purposes. Generally-speaking, the Agreement does this by requiring that any restrictions on international trading in animal and plant material must be supported by sound, objective science and a robust risk assessment.
18. While the SPS Agreement sets out the basic legal framework, other entities are charged with developing and implementing a set of international standards that give effect to the framework. These entities, often called the "Three Sisters", are:
- the Office International des Epizooties ('OIE'), which deals with matters of animal health and zoonoses;

⁵ Ibid at page 7.

⁶ Price Waterhouse, *Future Options for New Zealand's Meat Hygiene Programme*, Wellington, 1994 at page 1

⁷ MAF Regulatory Authority (Meat and Seafood), op cit, at page 18.

- the International Plant Protection Convention ('IPPC'), which deals with matters of plant health; and
 - Codex Alimentarius ('Codex'), a commission supported by the Food and Agriculture Organisation ('FAO') and the World Health Organisation ('WHO'), and which deals matters such as food safety and truthfulness in labelling.
19. The third of these institutions, Codex, sets international standards for, *inter alia*, inspection and examination of animal material destined for human consumption. As discussed below, the application of the SPS Agreement, and the standards developed by Codex to give effect to it, have fundamentally changed the way in which meat hygiene is regulated internationally.

The Impact of the SPS Agreement on Meat Hygiene

20. The introduction of the SPS Agreement was hugely important for New Zealand's primary industries. The central importance of scientific justification created significant opportunities for New Zealand to continue down its path of improving efficiency and competitiveness through the removal of unnecessary restrictions imposed by our trading partners.
21. The government immediately began to set strategic priorities with a view to leveraging off the gains made in the Uruguay GATT round. In late 1995, MAF issued a strategic direction document stating:

We want to assist and encourage the evolution of efficient, effective, primary product processing and marketing structures through considered rational debate among the affected parties.

We will amend the rules, procedures and arrangements to get the Government and MAF out of business as far as possible while maintaining the capacity to provide independent official assurances.⁸

22. Note that many of the sentiments in this quotation remain highly relevant, reflecting themes in the recently-released recommendations of the Food and Beverage Taskforce – such as the importance of efficient utilisation of resources and the implications this has in terms of improving productivity performance.
23. The focus on scientific justification also threw up a number of anomalies, the most obvious being that the level of government inspection (and supervision) of the meat sector greatly exceeded the role played by government in ensuring the fitness for human consumption of the products of other primary food industries (e.g., dairy and seafood):

Process and quality control and the conduct of inspection tasks are currently the responsibility of the processor or producer in all areas of the agricultural sector, with the exception of the meat sector.⁹

24. Over time, this line of thinking continued to evolve and by 1999 MAF's strategic priorities included:

⁸ Ministry of Agriculture and Fisheries, *Strategic Directions to the Year 2000*, Wellington, 1999 at page 16

⁹ Ministry of Agriculture, *Regulation, Biosecurity and Government: a Strategic View of MAF*, Wellington, 1997 at page 89

Reviewing and evaluating the application of the optimal regulatory model to the legislative framework in terms of the extent of application, and with particular reference to the specific roles, responsibilities and extent of government regulatory intervention, industry participation, and the contestability of verification and audit. [Emphasis added]¹⁰

Development of International Meat Inspection Standards

25. As noted in paragraph 7 above, the formation of the Codex Meat Hygiene Committee was the first major step towards the development of internationally-recognised meat hygiene standards. For several years, the Meat Hygiene Committee worked on a Recommended International Code of Hygienic Practice for Fresh Meat, and the completed Code¹¹ was accepted by the full Codex Commission in Rome in March/April 1976.
26. This Code was revised in 1993¹², and re-issued in conjunction with a Recommended International Code for Ante-Mortem and Post-Mortem Inspection of Slaughter Animals and for Ante-Mortem and Post-Mortem Judgment of Slaughter Animals and Meat.¹³ The Codes were by nature very prescriptive.
27. In 2002, as a consequence of the vastly changing environment alluded to in paragraph 10 and 11, the Codex Meat Hygiene Committee was reconvened to prepare a new meat hygiene code to replace, *inter alia*, the hygiene practice and inspection codes referred to in paragraph 26 above. The Committee met on three occasions over the period 2002-2005 as it developed a new, much more outcome-focused code. On each occasion New Zealand both chaired and hosted the Committee (in Wellington, Auckland and Christchurch).
28. The result of this process, the Code of Hygiene Practice for Meat¹⁴ ('the Hygiene Code') was adopted by Codex in 2005. The Hygiene Code further embeds the principles of science-based risk assessment as a means of effectively targeting resources to deliver the best food safety outcomes.
29. The Hygiene Code notes that regulatory authorities internationally are reviewing the delivery of meat hygiene services and 'implementing systems that redefine the respective role of industry and government in delivering meat hygiene services'¹⁵.
30. Under the code ante-mortem and post-mortem inspection activities may be performed by competent persons without defining their qualifications or profession. Ante-mortem inspection is recognised as "an integral component of the overarching risk-based system for the production of meat"¹⁶, with information derived from ante-mortem inspection fed into other aspects of the overall meat hygiene system¹⁷. In this context, information would be provided to assist with process control (as defined below).
31. Post-mortem inspection, on the other hand, is classified as a part of 'process control'. Process control is defined in the Hygiene Code as "systems and measures applied during the production process that are necessary to achieve the safety and suitability of meat"¹⁸.

¹⁰ MAF Policy Strategic Plan, Wellington, March 1999 at page 14.

¹¹ CAC/RCP 11-1976

¹² CAC/RCP 11-1976 (Rev. 1 1993)

¹³ CAC/RCP 41-1993

¹⁴ Codex Alimentarius Commission, *Code of Hygiene Practice for Meat* (CAC/RCP 58-2005)

¹⁵ *Ibid* at page 3

¹⁶ *Ibid* at page 15

¹⁷ *Ibid* at page 13

¹⁸ *Ibid* at page 6

32. In effect, the Hygiene Code says that ante and post-mortem examination should be integrated/immersed into industry's other food safety processes (in the same way as industry is responsible for developing measures to prevent cross contamination of products, and for maintaining a trace-back capability to facilitate a product re-call) and be controlled through its quality assurance function with industry meeting the outcomes set by regulators:

Effective process control requires design and implementation of appropriate systems. Industry has the primary responsibility for applying and supervising process control systems to ensure the safety and suitability of meat, and these should incorporate prerequisite GHP [Good Hygienic Practice] and HACCP [Hazard Analysis and Critical Control Point] plans as appropriate to the circumstances.

A documented process control system should describe the meat hygiene activities applied (including any sampling procedures), performance objectives and performance criteria (if set), verification activities, and corrective and preventative actions.

Competent bodies or competent persons recognised by the competent authority may be engaged by the establishment operator to undertake prescribed process control activities, including post-mortem inspection. These activities should be part of HACCP or QA systems as appropriate to the circumstances.¹⁹

33. This explicitly recognises that ante- and post-mortem inspection are activities that must be regulated by governments, but that do not need to be carried out by governments. The Hygiene Code clearly contemplates a situation whereby the government sets appropriate competency standards and an appropriate audit regime for ante and post-mortem examination, and industry acquires the services of suitably-trained inspectors either under contract or as employees.
34. In reaching this conclusion, the Codex Meat Hygiene Committee has also expressly endorsed the view put forward by MAF in 1995, as quoted in paragraph 12 above. That is, that the physical abnormalities identified and removed during post-mortem inspection are largely aesthetic problems rather than food safety issues of any real concern. The significant food safety threats are non-visible contaminants such as microbes, and traditional organoleptic meat inspection is largely ineffective against these threats.

IV. Market Access Requirements

35. The Hygiene Code is of huge importance in influencing both the way in which national governments choose to regulate for meat hygiene matters, and the extent to which governments can use meat hygiene matters as a means to restrict access for international trade. It is also significant as it has achieved a broad consensus as to the role of government in relation to inspection and aspects of meat hygiene.
36. However, while divergence from the Hygiene Code provides a strong basis for challenging unjustified market access conditions, it is also important to remember that the SPS Agreement protects the rights of nations to implement scientifically-justified measures to protect the health of their populations. Accordingly, the access conditions of individual markets remain important.
37. The conditions imposed by our two major export meat markets, the EU and the US, are discussed below – as are the implications of those conditions for meat inspection. Given the leadership role

¹⁹ Ibid at page 25

played by New Zealand in developing the Hygiene Code, it is perhaps not surprising that many aspects of the Hygiene Code already feature in these market access conditions.

38. Before looking at market access conditions, however, it is necessary to appreciate the standards New Zealand's own regulators have imposed, as they impact greatly on the conditions of access imposed by our markets.

New Zealand's Meat Hygiene Regime

The Past - Meat Acts

39. For most of the 20th Century, meat hygiene matters in New Zealand were addressed under a succession of Meat Acts (1939, 1964 and 1981). Underpinning these Meat Acts were statutory regulations setting out hygiene and inspection requirements for New Zealand meat processing and, from the late 1960's, export fish processing. The last of these was the Meat Regulations 1969 ('the Regulations'), which continued in force until quite recently²⁰.
40. The Regulations were extraordinarily prescriptive, running to 288 clauses and 7 Schedules. They effectively set out exactly how a processing company had to operate its facilities – from when workstations must be cleaned through to minimum ceiling heights and the layout of employee locker rooms. The Meat Acts even controlled whether a company could process at all, because facilities could only operate if they held a license from Minister of Agriculture.
41. The Regulations also required all processing companies to use government meat inspectors. These inspectors had a broad range of tasks, including;
- post-mortem inspection.
 - ante-mortem inspection
 - monitoring and enforcing cleaning and sterilisation of equipment
 - monitoring segregation of edible and inedible products
 - monitoring disposal of waste
 - monitoring handling and storage of potentially hazardous substances
 - monitoring the return to work of employees that had contracted certain infectious diseases
42. Meat inspectors also had a range of discretionary powers, including:
- allowing stock to be slaughtered on day of arrival at plant in certain circumstances
 - requiring carcasses to undergo bacteria tests
43. Under the Meat Acts and the Regulations, government inspectors undertook responsibility for process control and acted as the primary overseer of meat hygiene. As one would expect, this required meat inspectors to be well-trained, and meat inspectors were required to be either a veterinarian, or to have completed formal training – which for many years consisted of a two-year programme that included on the job training and a 12-week block course at Lincoln College.

The Present – The Animal Products Act

44. The Animal Products Act 1999 ('the APA') ushered in a markedly different regulatory philosophy. Rather than prescribe in detail the actions industry needed to follow, the Act requires individual operators to examine food safety risks presenting within their unique operations, and to document processes and procedures for managing those risks. Although the government still set standards, it does so more from the perspective of setting the outcome it expects to see. The onus of determining how an individual operation will achieve that outcome falls to the respective operators.

²⁰ Fully repealed on 1 July 2006 by section 5(2) of the Animal Products (Ancillary and Transitional Provisions) Act 1999

45. The purpose of the APA was quite succinctly put by Pete Hodgson (then Labour MP for Dunedin North) during his speech supporting the Animal Products Bill (as it then was) at its Third Reading:

The point I want to make is that this legislation is primarily not about home-kill. It is primarily about a change in emphasis and a change in the way we do things, for one of our most important export products and industries. It is, on the whole, very good legislation. I would be happy to support it, mainly because it shifts the way of thinking towards a risk management model. The benefits of a risk management model are twofold. Ordinarily risk management models are cheaper--more efficient, if one will--and ordinarily they are more effective. They are better on both counts than the prescriptive model, which states: "Thou shall stand on one leg and look north when one is killing or not killing or dressing or not dressing a piece of meat."

If one goes for a risk management model in the management of meat and related products, one is likely to see a higher standard for New Zealand's export products. These standards are high already, but the global community demands ever-increasing standards for meat products, and in New Zealand we demand ever-increasing standards for meat products. Consistent with a move to risk management, industry is taking on some of the work that gets to be done in respect of meat. So under this legislation, for example, front-line meat inspection would, where overseas market requirements allowed, be devolved to the industry, and inspectors would be contracted on a commercial pricing basis. [Emphasis Added]²¹

46. A key concept of the APA is the 'risk management programme' ('RMP'). Section 12 of the APA describes the purpose of an RMP:

12. What is a risk management programme?

(1) A risk management programme is a programme designed to both –

(a) Identify; and

(b) Control, manage and eliminate or minimise –

hazards and other risk factors in relations to the production and processing of animal material and animals products in order to ensure that the resulting animal product is fit for intended purpose.

...

(3) Risk management programmes are to be individually tailored for each animal product business, having regard to -

(a) Each type of animal material and animal product that the business produces or processes; and

(b) Each type of process or operation that is applied to the animal material or product; and

(c) Each set of premises or place in which the animal material or product is produced or processed.

47. All meat processing plants must have an RMP, which must document how the plant operator will manage its business to ensure product is fit for human consumption. Although the APA allows

²¹ Hansard Parliamentary Debates, 31 August 1999.

government to specify matters that must be addressed within an RMP, it is up to individual operators to determine how best to address those matters. This represents an overt shift in primary responsibility for safeguarding food safety to industry – a shift that is entirely consistent with the international acceptance of HACCP principles (refer above).

48. The APA also provides for the setting of standards that operators of processing facilities must adhere to. The standard relevant to meat inspection is set out in regulation 15 of the Animal Products Regulations 2000, which says:

15. Animal material and product to be examined, sampled and tested –

All risk management programme operators, and all other categories of person specified in regulations or specifications for the purposes of this regulation, must ensure that –

- (a) animal material, animal product, and associated things are examined, sampled, and tested in accordance with any relevant specifications that are appropriate to the class or description of the animal material or animal product or process concerned, or the risk factor to be managed, or any combination of these; and*
- (b) any necessary actions arising as a result of the examination, sampling or testing taken.*

49. The 'regulations or specifications' relevant to examination of meat products are set out in:
- (a) clauses 20 and 23 of the Animal Products (Specifications for Products Intended for Human Consumption) Amendment Notice (No. 4) 2005, which require ante- and post-mortem inspection of farmed mammals destined for human consumption; and
 - (b) the Animal Products (Ante-mortem and Post-mortem Examination of Mammal, Ostriches and Emu Intended for Human Consumption) Notice 2006, which elaborates on the requirements for ante- and post-mortem inspection of mammals
50. The actual physical tasks of meat inspection²² under the APA are substantially the same as those required under the Meat Act. For post-mortem inspection, for example, a manual that documented the required procedures under the Meat Act – Manual 16 - is wholly incorporated by reference, meaning procedures and judgements (i.e., decisions around disposition of product) under the Meat Act and APA regimes are identical. However, there are two significant changes in terms of the persons that may perform various meat inspection tasks.
51. Firstly, under the APA a distinction is made between the qualifications required of meat inspectors undertaking ante-mortem inspection and post-mortem inspection. The competency requirements of ante-mortem and post-mortem examiners (as 'meat inspectors' are termed under the APA) are set out in Schedule 3 of the Animal Products (Specifications for Products Intended for Human Consumption) Notice 2004.
52. Previous qualifications continue to be recognised (e.g., veterinary registration, MAF meat inspection certificates, or Australian meat inspection qualifications) but new 'meat inspector' trainees must obtain a National Certificate in Meat Inspection Services. Training in this National Certificate is co-ordinated by the New Zealand Industry Training Organisation (i.e. the meat industry's ITO) under the New Zealand Qualifications Authority framework.
53. There are really two tiers to the National Certificate. A basic certificate qualifies a person to undertake post-mortem examination, whereas to qualify to undertake ante-mortem inspection a trainee must also undertake an Optional Advanced Meat Inspection Service Strand. At present, less than 20% of meat

²² The APA regime uses the terms 'ante-mortem examiner' and 'post-mortem examiner' rather than 'meat inspector'. However, for issues of continuity and readability this paper continues to use the term, 'meat inspector'.

inspectors are qualified to undertake ante-mortem inspection, and the reasons for this will become apparent below.

54. The second important change to the persons that may perform meat inspection tasks is that, unlike the Meat Acts, the APA does not require that ante-mortem or post-mortem examination is undertaken by government employees or employees of government-owned entities. The operator of a meat processing facility is responsible for ensuring that ante-mortem and post-mortem examination occurs, and that it is undertaken by appropriately qualified and competent people. These examiners may be employed by any public or private entity – including the operator of the meat processing facility.²³
55. This is again entirely consistent with the philosophy of the APA in making the operators of animal product businesses primarily responsible for that ensuring food safety outcomes set (and audited) by government are achieved. This, in turn, is wholly consistent with international adoption of HACCP as the most effective means of ensuring food safety.

Overseas Market Access Requirements

56. Given that the New Zealand meat industry is overwhelmingly geared towards the export of its products²⁴, it is the meat inspection standards of our export markets that define the role of New Zealand meat inspectors in a practical sense. Despite what is permissible under the APA, the expectations of importing countries still act as a constraint on meat processing companies undertaking their own ante- and post-mortem inspection. However, the advent of the Codex Hygiene Code is an important turning point in international thinking in this regard.
57. Australia provides a useful example of why this is the case. In the late 1990s Australia developed a Meat Safety Enhancement Programme ('MSEP'), which is based around HACCP principles and assigns responsibility for post-mortem meat inspection to trained meat company employees. In 1999, the United States government recognised the MSEP as a system that was equivalent to the US domestic meat inspection regime²⁵, thereby opening the door for Australian meat companies to export product to the US that had been inspected by meat company employees – provided that company employees were directly supervised by a government inspector and that each plant also has a full-time veterinary presence..
58. Although the US had recognised the equivalence of MSEP, Australian meat companies have not made use of the MSEP partly due to conditions imposed by the US and also because it would effectively limit their output to one destination market – the US. However, with the passing of the Hygiene Code and its express recognition of post-mortem inspection undertaken by employees, one Australian meat company²⁶ has signaled its intention to utilise the MSEP to export product inspected by its own employees.
59. The requirements of our two main trading partners, the EU (for lamb) and the US (for beef) are discussed below.

European Union

60. The EU has set out rules regarding official controls on animal products intended for human consumption in European Commission Regulation No. 854/2004 ('EC 854/2004'). Article 5(1) of EC

²³ See, for example, clause 26(2) of the Animal Products (Ante-mortem and Post-mortem Examination of Mammals, Ostriches and Emu Intended for Human Consumption) Notice 2006

²⁴ StatisticsNew Zealand reports that in the year ending May 2006 New Zealand exported just under 75% of its total beef production and over 85% of its total sheepmeat production (by volume) .

²⁵ United States Federal Register, Volume 64, Number 108 at pages 30299 to 30303

²⁶ The Nolan's meat processing plant at Gympie, Queensland.

854/2004 places the responsibility for undertaking inspection tasks in slaughterhouses (including ante-mortem and post-mortem inspection and laboratory testing) on the shoulders of 'official veterinarians' although official auxiliaries' may assist official veterinarians as described below. Official veterinarians must be appointed by state regulatory authorities and are "government" personnel.

61. Article 5(4) allows for trained 'official auxiliaries' to assist official veterinarians. Annex 1, Section III, Chapter IV of EC 854/2004 sets out competency requirements for official auxiliaries. They must undertake a training programme of at least 500 hours of theoretical training and 400 hours of practical training, and must then be tested on their knowledge. Training must cover basic principles of hygiene, anatomy, pathology, microbiology, and ante and post-mortem inspection procedures. 'Official auxiliaries' must be appointed by the state regulatory authority, but need not be employees of the state (a provision designed to allow them to be employees of local government or some other such body).
62. EC 854/2004 does, in restricted circumstances, provide for company operators to perform inspection tasks. These circumstances apply to inspection of poultry and lagomorphs (rabbits) provided that certain herd health provisions have been implemented. Herd health provisions include veterinary input at the farm level. Auxillaries acting in this capacity need to be trained to the same level as outlined in paragraph 61 and must be seconded to the official veterinarian's inspection team. Auxillaries must also be directly supervised by the official veterinarian.
63. EC 854/2004 places some express limits on the areas in which official auxiliaries can assist official veterinarians:

Official auxiliaries may assist the official veterinarian with all tasks, subject to the following restrictions ...

1. *in relation to auditing tasks, official auxiliaries may only collect information regarding good hygiene practices and HACCP-based procedures;*
2. *in relation to ante-mortem inspection and checks concerning the welfare of animals, official auxiliaries may only make an initial check of animals and help with purely practical tasks; and*
3. *in relation to post-mortem inspection, the official veterinarian must regularly check the work of official auxiliaries and, in the case of animals having undergone emergency slaughter outside the slaughterhouse, carry out the inspection personally.²⁷*

64. These restrictions have important implications. The first is that, insofar as the EU legislation is concerned, ante-mortem inspection is a purely veterinary task, and auxiliaries may only perform a triage task. The second is that although auxiliaries may undertake post-mortem inspection, veterinarians remain accountable for the activity.
65. As well as setting out the 'domestic' standards for operations within the EU, countries wishing to export relevant products to the EU must maintain systems that are equivalent to those set out in EC 854/2004. Article 11 of EC 854/2004 provides that the EU will prepare lists of countries whose domestic meat hygiene and inspection standards are deemed to meet standards that are acceptable to the EU. EC 854/2004 is the bench mark for such considerations.
66. New Zealand's sanitary (hygiene) standards (included those detailed in the Export Requirements issued under the APA) have been recognised as equivalent under the NZ/EU Sanitary Agreement although the EU still requires plants exporting to them to have ante-mortem inspection undertaken by

²⁷ EC 854/2004, Annex 1, Section III, Chapter 1

official veterinarians and have post mortem inspection performed by either an official veterinarians or a meat inspector employed by a government entity.

67. In the case of lamb inspection, however, there are signals from the EU that it may be amenable to permitting post-mortem, and possibly ante-mortem, inspection by meat company personnel – although the implications of this would need to be worked through the NZ/EU Sanitary Agreement. From a New Zealand perspective, it would also require decisions regarding the relative priority to be given to progressing this issue over other matters.

United States

68. The US domestic meat hygiene system is set out in a series of regulations made pursuant to the Federal Meat Inspection Act 1906 and the Wholesome Meat Act 1967. These include the *Pathogen Reduction and Hazard Analysis Critical Control Point Final Rule*²⁸ (more commonly referred to as the 'MegaReg') and regulations focused specifically on ante- and post-mortem inspection²⁹.
69. These various sets of regulations relevant to meat hygiene generally and meat inspection in particular are consolidated as part of Title 9, Chapter III of the US Code of Federal Regulations.
70. New Zealand does not need to replicate the standards prescribed by the Mega Reg or inspection procedures where New Zealand standards or procedures have been deemed equivalent. For matters where equivalence has not been gained, the US meat inspection requirements are contained within the *Overseas Market Access Requirements: USA* ('the US OMAR').
71. Clauses 3.2.3.1 and 3.2.3.2 of the US OMAR recognise that a meat inspector may undertake ante and post-mortem inspection tasks, provided they do so under the supervision of a government veterinarian. Clause 3.2.2.3 of the US OMAR requires that a government veterinarian must make the decisions on 'ante-mortem and post-mortem "suspects"'.
72. The net result is that in plants that export to the United States, meat inspectors can identify potential problems at ante- or post-mortem inspection, but again must defer to a veterinarian for any decision on what to do with regard to that problem (unless the carcass is automatically condemned). Meat inspectors in US-listed plants, then, perform a filter or triage role.

V. Implications for Meat Inspection

73. With one minor exception³⁰ every export meat processing plant in New Zealand is listed for export to both the EU and the US. As a consequence, the access requirements of these two markets become the default conditions under which the export meat industry operates.
74. In conjunction with the strong, world-wide trend toward HACCP and processor responsibility for ensuring food safety, this has meant that the role of non-veterinary meat inspectors in the export meat industry has shifted and has become less pivotal. Importing countries hold official veterinarians ultimately accountable for ensuring that zoonotic diseases are kept out of the food chain, while the processor itself is made accountable for ensuring food safety is maintained – under the supervision of an official veterinarian.
75. That is not to say that meat inspectors do not play an important role, it is simply that this role has changed over time as across the world responsibility for maintaining food safety has shifted onto the

²⁸ United States Federal Register, Volume 61, Number 144 at pages 38806 to 38989

²⁹ United States Federal Register, Volume 34, at page 15563.

³⁰ River City Meats in Wanganui is US listed, but not EU listed.

shoulders of food processors implementing HACCP principles. Government inspectors monitoring compliance with prescriptive requirements have been replaced by government approval and auditing of risk management plans developed by industry. It is this oversight, provided by the NZFSA and the its Verification Agency, that now forms the basis of the assurances New Zealand provides to its export markets.

76. This international shift in the role of meat inspectors will continue as inspection requirements within importing countries continue to evolve in accordance with the Codex Hygiene Code. Increasingly inspection is viewed as a process control task that can be effectively and efficiently performed by as part of a wider HACCP/GHP system that is verified and audited by national regulatory authorities – rather than physically provided by those authorities.