

Equine influenza

The August 2007 outbreak in Australia

Report of the
Equine Influenza Inquiry

The Hon. Ian Callinan AC

April 2008

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Equine Influenza Inquiry

23 April 2008

The Hon. Tony Burke MP
Minister for Agriculture, Fisheries and Forestry
Parliament House
Canberra ACT 2600

Dear Minister

In accordance with my appointment on 25 September 2007 under s. 66AY of the *Quarantine Act 1908*, I have inquired into and prepared a report on the August 2007 outbreak of equine influenza.

I present to you my report.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Ian Callinan', with a long horizontal stroke extending to the right.

The Hon. Ian Callinan AC

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Summary and recommendations

This Inquiry examined the circumstances that contributed to the outbreak of equine influenza in Australia in August 2007. My findings as to those circumstances follow. The Inquiry also examined whether there is a need for strengthened biosecurity measures in relation to the importation of horses. In my view, there is such a need. My reasons for holding that view and the recommendations I make also follow.

Summary

How the virus entered Australia

In August 2007 there was an intake of 52 horses into the Eastern Creek Quarantine Station in New South Wales and 27 horses into the Spotswood Quarantine Station in Victoria. Thirteen of the horses were from Japan. They arrived at Tullamarine Airport in Melbourne on 8 August. Nine of them were received into Spotswood; the remaining four were taken to Sydney (Kingsford Smith) Airport and from there were transported to Eastern Creek.

Subsequent analyses of blood samples taken from the horses at Eastern Creek and Spotswood established that one of the four Japanese horses at Eastern Creek and seven of the Japanese horses at Spotswood had become infected with equine influenza at some stage before 13 August, when blood samples were first taken while they were in post-arrival quarantine. Analyses of the blood samples of the other horses at Eastern Creek—from Ireland, the United Kingdom and the United States—did not establish that any of them were infected with the virus on arrival in quarantine.

On 17 August one of the horses at Eastern Creek, the Irish stallion Encosta De Lago, was observed to have some symptoms consistent with equine influenza. On 20 August another Irish stallion, in the stall next to Encosta De Lago, was observed to have similar symptoms. Nasal swabs and blood samples were then taken from a number of the Eastern Creek horses; analyses of the swabs and samples revealed that five of the horses were infected with the virus.

Subsequent analysis has established that the virus (described as Eastern Creek/07) is identical to the virus that infected horses in Centennial Parklands Equestrian Centre (Sydney/07) (see the next section). It is an H3N8 sub-type of the equine influenza virus and is almost identical to the virus responsible for an

outbreak in Japan in August 2007 (Ibaraki/07) and a virus isolated in Pennsylvania in the United States in late August 2007 (Pennsylvania/07).

The best explanation for the simultaneous presence of infected horses at Eastern Creek and Spotswood Quarantine Stations is that there was a common source of infection and that it came with the horses from Japan rather than the United States. That conclusion is consistent not only with the analyses of blood samples taken from the horses but also with the fact that the horses from Japan underwent pre-export quarantine on the island of Hokkaido between 17 July and 6 August, where subsequently there were several notifications of outbreaks of equine influenza, among them outbreaks at places where three of the stallions and six of the mares had undergone pre-export quarantine.

It is for these reasons that I concluded that one of the four horses from Japan received into Eastern Creek on 8 August, the stallion Snitzel, was likely to have been infected with equine influenza on arrival there and that one or more of the other horses from Japan that arrived in Sydney with Snitzel might also have been contaminated with the virus but not infected by it. I also concluded that some of the horses from Japan received into Spotswood on 8 August were infected with the virus.

Discovery of the virus inside Australia

On 22 August two horses at the Centennial Parklands Equestrian Centre, in the eastern suburbs of Sydney, showed symptoms of equine influenza. On 25 August testing of nasal swabs taken from those horses showed they had equine influenza. At about that time a number of other cases of equine influenza were reported in places such as Cooranbong, Arcadia and Tamworth in New South Wales and in the outskirts of Brisbane in southern Queensland. All these horses had attended a 'one-day event' at Anambah, near Maitland in New South Wales, which began on 17 August. A rapid outbreak of equine influenza in New South Wales and Queensland followed. By 10 October there were about 4500 infected premises in an area of 278 000 square kilometres.

There had been no reports of equine influenza in the general horse population in New South Wales before the Maitland event, and the high probability is that an infected horse or horses attended the event and infected other horses there. The infected horse or horses have not been identified, although I heard evidence, conflicting in its detail, of the presence at the event of a coughing horse or horses.

Escape of the virus into the general horse population

There is no evidence of any contamination of horses in the general horse population in Victoria, and the likelihood that the virus was carried out of

Spotswood to horses in New South Wales by grooms or veterinarians or by vehicles used to carry the horses to Spotswood is not supported by the evidence. Further, such a scenario would not explain the absence of any report of the virus in the general horse population in New South Wales until 21 or 22 August.

There are four ‘most likely’ scenarios that might explain where and how the virus escaped into the general horse population—by airborne spread from Sydney (Kingsford Smith) Airport; by contaminated people, equipment or vehicles associated with the arrival of the horses at that airport and their transport to Eastern Creek Quarantine Station; by airborne spread from Eastern Creek; or by contaminated people or equipment or by some other means from that Quarantine Station. Two other means suggested in evidence were cross-infection by dogs or birds or by some vector such as straw carried by a bird.

Contamination by airborne spread, either from the airport or from Eastern Creek, can be rejected as a likely cause for a number of reasons. First, the Japanese horses were not exhibiting clinical signs of infection at the time they arrived. If any of them had been shedding the virus in nasal discharge or aerosolised droplets it was not doing so in any noticeable volume. Secondly, the weather conditions at the airport and at Eastern Creek would not have permitted the survival of the exposed virus for any significant period. Thirdly, the part of Sydney Airport where the horses were unloaded from the aircraft and then loaded into vehicles is inside the perimeter of the airport and some distance from industrial and residential areas. The evidence does not suggest that there were any horses in that area likely to be infected by airborne spread. Although Eastern Creek is in a semi-rural area, the fact that only a small number of the 52 horses in the Quarantine Station eventually became infected also makes it improbable that a horse outside the station would have been infected by airborne spread when those inside it were not.

Contamination by means of people, equipment or vehicles associated with the arrival of the horses at the airport and their transport to Eastern Creek is also unlikely. The absence of any reported cases of equine influenza in the general horse population before 21 August is not consistent with the contamination of a naive (previously unexposed) horse in that population on 8 or 9 August and its later attendance at the Maitland event. The incubation and infectious periods for the disease suggest that such a horse would have become infected by about 13 August and would have remained infected for up to 10 days. If the horse were to have competed in the Maitland event, in all probability it would have undertaken preparation and training and probably would have had contact with other horses during the time it was infected. It is most unlikely that the horse could have done the necessary preparation and training without exhibiting signs of equine influenza or respiratory illness. At the same time, it is likely

that other horses would have become infected and that the infection would have been noticed.

The evidence before me was that none of the people and equipment that had, or were likely to have had, contact with the infected horses subsequently had contact with a horse in the general horse population that contracted the disease before 24 August. Specifically the evidence of the movements of the truck drivers and the vehicles used to carry the horses to Eastern Creek does not establish that any horses transported in the period after 8 August became infected before the Maitland event.

I am aware that this evidence alone might not exclude the possibility that the virus escaped from the airport or during transport by one of these means. I am particularly conscious that a person who might have unintentionally facilitated the escape of the virus would not necessarily be aware of, or be prepared to admit, that fact. There is a possibility that some evidence before the Inquiry was not accurate or given truthfully or that the extensive inquiries made by those assisting me failed to uncover a probable route of contamination. Nevertheless, the fact that there were no reported cases of equine influenza in the general horse population before 21 August makes it most unlikely that the virus escaped from the airport or that the contamination was caused by the vehicles transporting the horses to Eastern Creek.

The remaining possible explanations are that a person or equipment or a dog or a bird from Eastern Creek in some way contaminated a horse or horses outside the Quarantine Station.

The scientific and other evidence clearly excludes the possibility that contamination occurred through dogs or birds. In the case of dogs, this is so for two reasons. First, although there have been some reported instances of infection of dogs when they have had direct or indirect contact with horses experiencing the acute stages of their infection, the dogs at Eastern Creek were kept apart from the horses. Because the infected horses shed relatively small amounts of the virus, the virus is unlikely to have come into contact with the dogs. Secondly, there have been no reported instances of dogs infected with the virus passing it on to horses. In relation to birds, the evidence is that it is most unlikely that they played any part in the transmission of the virus, either as a vector physically carrying droplets containing it or by becoming infected with the virus and then shedding it so as to infect other horses.

The most likely explanation remains that the virus escaped from Eastern Creek on the person, clothing or equipment of a groom, veterinarian, farrier or other person who had contact with an infected horse and who then left the Quarantine Station without cleaning or disinfecting adequately or at all. The timing of the Maitland event and the emergence of clinical signs in Eastern

Creek strongly suggest that this is most likely to have occurred in the period after 10 August 2007.

From 10 August a number of the horses in Eastern Creek were attended to by grooms, farriers and veterinarians. The movements of those people in and out of the Quarantine Station and their activities in the equine enclosure were not rigorously supervised or monitored by anyone from AQIS or by any of the other people at Eastern Creek during the period of the intake. I make the following findings in relation to these people:

- (a) A number of the grooms—especially those looking after the Coolmore and Arrowfield horses—had contact with a horse that was or horses that were likely to be shedding the virus on and after 10 August.
- (b) On occasions, some of the grooms left the Quarantine Station without showering and changing their clothes. The making of this statement does not involve a finding—the available evidence does not enable me to do so—that any particular groom left the Quarantine Station without showering and changing after having had contact with a horse that was shedding the virus at that time.
- (c) On 13 August the farrier Mr Scott Barlow attended horses in the Quarantine Station and failed to clean or disinfect his farrier's tools and apron before leaving Eastern Creek.
- (d) On 14 August the farrier Mr Brad Hinze attended the Coolmore horses in the Quarantine Station and left without showering or changing his clothes or cleaning and disinfecting his farrier's tools and apron.
- (e) Various private veterinarians—among them Drs Denis Crowley, John Bruyn, James Whitfeld and Andrew Argyle—attended horses in the Quarantine Station between 10 and 18 August. None of them showered out before leaving the station. Drs Bruyn, Whitfeld and Argyle wore overalls and gumboots that they removed before they left the station and did wash their hands; Dr Bruyn and Dr Whitfeld also washed their faces.

None of the grooms admitted to any contact with a horse outside the Quarantine Station. The movements of the veterinarians and farriers were also carefully examined. Although some had contact with horses on the day they attended the station and in the days immediately afterwards, the evidence does not establish that any of the horses they had contact with outside Eastern Creek became infected before or attended the Maitland event.

The only other person the evidence establishes had contact with the horses between 10 and 18 August was Dr Widders, the government veterinarian, who took blood from the four horses from Japan on 13 August. The evidence does

not, however, show that he had contact with horses outside the Quarantine Station.

In the circumstances, the finding I make is that the most likely explanation for the virus's escape from infected horses at Eastern Creek is that it did so by means of a contaminated person or equipment leaving the Quarantine Station. The contaminated person or persons or equipment are most likely to have been those associated with the care of the horses while in quarantine.

The absence of fundamental biosecurity measures at Eastern Creek

The objective of biosecurity measures at a post-arrival quarantine station for animals, such as Eastern Creek, is to prevent the escape of disease that might be present in the station. It is therefore essential that people and equipment having contact with the animals are adequately decontaminated before leaving the station. That was not happening at Eastern Creek in August 2007. Had such biosecurity measures been in place, it is most unlikely that there could have been any escape of equine influenza from the Quarantine Station.

That such measures were not being implemented was a consequence of a number of acts and omissions on the part of various employees and officers of AQIS at different levels of that organisation and over a number of years.

Fundamental biosecurity measures were not being implemented in the largest government-operated animal quarantine station in Australia. This constituted a serious failure by those within the Department of Agriculture, Fisheries and Forestry and AQIS who were and had been responsible for the management of quarantine risks and, in particular, the management of post-entry quarantine arrangements. Among the people who ultimately must take responsibility for that failure were the Secretary of the department as the Director of Animal and Plant Quarantine and the person who, under the Minister, is charged with execution of the *Quarantine Act 1908*, the Executive Director of AQIS and the Executive Manager of Quarantine within AQIS. Various people have held those positions in recent years.

The Inquiry's examination of other aspects of the process of importation of horses—which starts with the issue of an import permit and the vaccination of the horses, and includes pre-export quarantine, the transport of the horses to an airport, their air carriage to Australia, their unloading at an airport in Australia, subsequent transport to a quarantine station, and post-arrival quarantine—revealed a number of other deficiencies in the biosecurity measures in existence, the way in which those measures are formulated, reviewed and implemented, and the way their implementation is monitored.

A number of those deficiencies operated, in some cases separately and certainly collectively, to increase the likelihood that a horse infected with equine

influenza would enter Australia, with the consequent risk that the virus would escape from post-arrival quarantine, as is most likely to have occurred. Others of those deficiencies increased the risk that the virus might escape into the general horse population at some point in the importation process leading to post-arrival quarantine.

First I summarise my findings in relation to the failure to implement properly biosecurity measures at Eastern Creek Quarantine Station. Then I summarise my findings in relation to the other deficiencies that I have identified.

Before I do so, however, I should briefly describe the structure of AQIS so as to assist in understanding of what follows.

AQIS's quarantine activities and functions are divided among a number of 'national programs', which have responsibility for developing and promulgating operating procedures, and geographic regions of Australia (including New South Wales and Victoria), which are responsible for program activities in each region.

Four AQIS national programs have a role in the clearance of horses when they arrive in Australia and are transported to a quarantine station—the Live Animal Imports Program (responsible for clearance of the horses and review of the associated paperwork), the Airports Program (responsible for clearance of the crew and passengers and their personal baggage), the Import Clearance Program (responsible for clearance of the horse stalls), and the Post-Entry Animal Quarantine Program (responsible for managing the horses and transport vehicles when they arrive at the quarantine station).

Circumstances that contributed to the virus's escape

The circumstances that contributed to the failure to require that people and equipment having contact with the horses be adequately decontaminated before leaving Eastern Creek Quarantine Station are as follows:

- (a) In August 2007 and before that, the Quarantine Station was open and staffed from Monday to Friday from 8.00 am to 4.30 pm. There was no security guard present at the station after hours or at weekends, and security measures consisted essentially of fencing and locked gates. Grooms, private veterinarians and caterers were given access cards and keys that allowed them to enter and leave the Quarantine Station and the equine enclosure at will. There was no continuous or close monitoring of the movements of these people. Nor was there any monitoring to ensure that the grooms, private veterinarians, farriers and others who had contact with the horses were showering and changing their clothes before they left the station. The officer at Eastern Creek who had specific responsibility for the horses believed, erroneously, that grooms and veterinarians and others

were wearing protective clothing and showering before they left the station. She did not, however, consider it any part of her responsibility to check that this was in fact occurring and made no attempt to do so.

- (b) At August 2007 the national manager of the Post-Entry Animal Quarantine Program, who was responsible for promulgating nationally applicable work instructions and operating procedures, auditing (that is, checking) to see that those procedures were being implemented, and providing any necessary initial training with respect to them believed that a Work Instruction for the Clearance of Live Horses issued in May 2004 laid down the relevant procedures for the quarantine stations and that those procedures were being followed. In reality, they were not being followed. The instruction and its attached forms required that grooms, private veterinarians and farriers wear dedicated clothing and footwear while in contact with the horses and shower out and that horse equipment remain in the Quarantine Station for the duration of the quarantine period, or be disinfected before its removal. They did not, however, expressly require AQIS staff or anyone else to take steps to ensure that the grooms, private veterinarians and farriers were complying with the procedures.
- (c) None of the Eastern Creek officers who had responsibility for management of the quarantine of horses—these being, the Manager, the Supervisor of Animal Quarantine and the Senior Quarantine Officer having some responsibility for horses—had received any training or instruction from the relevant national program or the regional office as to the existence of any work instructions governing the clearance and quarantine of horses or as to their implementation. At the time of the outbreak those officers were aware of the existence of the Work Instruction for the Clearance of Live Horses issued in May 2004 and a draft Operations Manual for Horses released in March 2004, but none of them understood that either of the documents set out instructions or procedures with which they were obliged to comply.
- (d) At August 2007 the Live Animal Imports and Post-Entry Animal Quarantine Programs had not carried out any checks to see that the Work Instruction was being implemented in New South Wales or Victoria. Although it was required to do so, it had not, according to the evidence, because it lacked the financial resources to do that as a priority to other tasks for which it was responsible.
- (e) At August 2007 the national manager of the Post-Entry Animal Quarantine Program regarded the AQIS intranet as the means by which nationally applicable work instructions and operating procedures were published and made known to regional staff. At the same time, none of the AQIS officers at Eastern Creek who had responsibility for management of the quarantine of horses regarded the AQIS intranet as the place where relevant and

applicable work instructions and operating procedures could easily be located.

- (f) At the New South Wales regional level, the officer responsible for implementing the national program's work instructions in relation to horses was aware of the Work Instruction for the Clearance of Live Horses but did not regard it as sufficient and satisfactory. The officer accepted that he had some responsibility to see that the Work Instruction was being complied with at Eastern Creek, but he did not know, at August 2007, whether it was being complied with in a number of important respects.
- (g) The assistant New South Wales regional manager responsible for management of the Live Animal Imports and Post-Entry Animal Quarantine Programs at August 2007 was aware of the existence of the Work Instruction but had not looked at it and did not know if it was being implemented in the region. Nor did she regard it as part of her duties or those of her immediate superior, the New South Wales regional manager, to see that it was being implemented.
- (h) The Work Instruction nominates the manager of a region as the person who should ensure that quarantine officers involved in the import of horses are aware of the instruction and have access to it. At August 2007 the New South Wales regional manager was not aware of the existence of that instruction and was not aware that he had any responsibility to see that it was being implemented in the state.
- (i) The fact that the manager and staff at Eastern Creek were unaware of any documented procedures they were required to follow was brought to the attention of the national manager of the Live Animal Imports and Post-Entry Animal Quarantine Programs in April 2007. That fact notwithstanding, the national manager did nothing to investigate how that state of affairs could have come about, or to institute any measures to avoid a recurrence of it. Nor did he take any steps to bring the matter to the attention of New South Wales regional management, who were responsible for seeing that any procedures published by the national programs were being implemented. Nor did he instigate any audit to see that the procedures were being implemented.
- (j) Within the AQIS management structure there was no person in the regional offices who was responsible for identifying and reporting to the national program the work instructions and operating procedures that were being implemented in the region.
- (k) No one in the Live Animal Imports Program took effective steps to finalise the draft Operations Manual for Horses between February 2005 and the

equine influenza outbreak in August 2007. One reason given for this was a lack of resources to perform this task, having regard to priorities.

- (l) The existing systems in AQIS—including business plans, business plan reviews and any requirements for audit—did not bring to the attention of senior management the fact that nationally promulgated and documented work instructions for the quarantine of horses were not being implemented in the regional quarantine stations, or the fact that no audits had been carried out to see whether the instructions were being implemented.

What I describe bespeaks an organisation that lacked clear lines of communication between those responsible for formulating procedures and work instructions and those responsible for implementing them; one in which there was insufficient training and education in relation to the procedures and instructions to be followed; one in which there was no checking to ensure that those procedures and instructions were being implemented; and one in which any business plan or other reporting system did not alert senior management to these failures.

In addition to these systemic failures in AQIS, other factors contributed to the lack of effective supervision and monitoring of people entering and leaving Eastern Creek Quarantine Station:

- (a) The Quarantine Station was not adequately funded to enable it to discharge properly its quarantine management functions, and the national program was not adequately funded and resourced to enable it to discharge its responsibilities to check that work instructions were being implemented. The evidence is that budgets for the Post-Entry Animal Quarantine Program were prepared within the department annually on the assumption that the existing human and other resources were sufficient for the Quarantine Station to discharge its functions. That was an unsound assumption. After the outbreak in August 2007 the Quarantine Station was manned by a security guard 24 hours a day, and an additional quarantine officer was employed to take day-to-day responsibility for horse quarantine. There was evidence that, had a cogent case been made for additional funding, the Government would probably have provided it.
- (b) The Quarantine Station was understaffed. It was not staffed 24 hours a day and was closed during the weekends. Only one officer had been allocated any particular duties in relation to horses. She was also responsible for helping with the quarantine management of cats and dogs, and that took most of her time. In 2006 and 2007 there were already insufficient quarantine staff to manage the cats and dogs. In 2006 that officer was instructed by the station manager to spend time in the equine enclosure only if it was necessary for her to do so. She was told to attend to her other duties and that there were 'budgetary restraints' on her doing otherwise.

- (c) The facilities and arrangements at Eastern Creek in August 2007 were not conducive to effective implementation of biosecurity measures. There was no showering or changing facility at the point of entry to and exit from the equine enclosure or at the point of entry to and exit from the Quarantine Station. Nor was there any effective system for recording and monitoring entry to and exit from the Quarantine Station or the equine enclosure 24 hours a day. Veterinarians were required to shower out in the grooms' quarters, and their access to another shower, which could be entered from the equine enclosure, was restricted. In fact, they were not showering out by 2007.

Finally, I accept that those who treated and cared for the horses in Eastern Creek—especially the grooms, private veterinarians and farriers—and the import agents and studs who employed or retained them, must take some responsibility for the failure of quarantine. Their failure to decontaminate themselves and their equipment contributed to the probable means of the virus's escape from Eastern Creek.

Other inadequacies

The Inquiry identified deficiencies that increased the likelihood that a horse infected with equine influenza might be imported into Australia, as well as ones that increased the risk that the virus would escape into the general horse population at some point before post-arrival quarantine. It is convenient to consider these inadequacies in relation to import conditions and pre-export quarantine, arrival at an Australian airport and transfer to a quarantine station and post-arrival quarantine.

Import conditions and pre-export quarantine

Biosecurity Australia formulates policy advice for the importation of horses from particular countries or regions. For the most part, the advice is adopted by AQIS as conditions to be satisfied for the importation of horses from those countries or regions. The conditions deal with vaccination, pre-export quarantine, some activities to the point of loading on to an aircraft for carriage to Australia, and some aspects of post-arrival quarantine.

Those policies have been developed over time. Never has there been any formal analysis by Biosecurity Australia that in one document identifies the risks associated with the importation of horses and describes the ways those risks are dealt with by the imposition of import conditions so that the 'level of quarantine risk' is sufficiently low to allow importation to proceed. Such an analysis should be done. It should be a rigorous review of the current import conditions and their adequacy in the light of current scientific and other

information. Once completed, it would provide a vantage point from which policy could be the subject of regular scrutiny.

The evidence before me about events in pre-export quarantine premises in Japan and elsewhere was only general. Nevertheless, it does suggest that there were opportunities for the horses in quarantine there to have had contact with the virus by means of contaminated people or equipment entering the quarantine area without proper decontamination procedures being followed; for example, it is not always the case that grooms or farriers in those places are required to change and shower in.

In Australia, the policies current at August 2007 did not provide for premises to be inspected and approved by AQIS, Biosecurity Australia or another qualified person before they could be used for pre-export quarantine. Nor did they require that such premises have fully documented procedures drawn up in accordance with a HACCP (hazard analysis critical control point) system. Nor were there any arrangements for implementation of those procedures to be audited from time to time by AQIS, Biosecurity Australia or another qualified person. Introduction of these measures would reduce the risk of infection of horses during pre-export quarantine.

The current conditions do not deal exhaustively with the movement of the horses from the pre-entry quarantine premises to the point where they are loaded on to an aircraft for carriage to Australia. There are during this period opportunities for infection by contaminated people, vehicles, equipment or other horses that have not been subject to the pre-export quarantine regime. These risks should be identified and dealt with by the introduction of appropriate conditions. For that to occur, though, an inspection and review of the importation process that takes place outside Australia to identify any biosecurity risks and formulate policies to meet them should be undertaken and kept under review by a qualified person or persons.

In relation to vaccination, the current import conditions do not specify that any particular vaccine or vaccines containing representative strains be used. A surveillance panel representing the World Organisation for Animal Health (generally known as the OIE) has recommended the use of vaccines containing currently circulating strains—specifically the North American isolates of the variant American sub-lineage. When such vaccines become available they should be used. In addition, if some currently available vaccines are known to be less effective than others, they should not be used.

In the recent outbreak in Australia authorities experienced difficulty in gaining access to blood samples taken in pre-export quarantine for the purpose of identifying horses that might have been infected and managing any outbreak of equine influenza in the Quarantine Station. The import conditions should require that such samples be taken and made available in Australia. The

conditions current at August 2007 did not require that horses be tested for equine influenza whilst in pre-export quarantine. Horses should be tested for the virus in pre-export quarantine, as late as is practicable before their release.

Finally, the health and other certificates required by the import conditions are checked on the arrival of a horse in Australia. That check is usually carried out after the horse has entered the quarantine station. These checks could be done before the horse is transported to Australia. This would give further assurance that horses that do not satisfy the import conditions with respect to vaccination, equine influenza testing and other matters may not enter Australia.

Arrival at an Australian airport and transport to a quarantine station

The sequence of activity that begins with the arrival of an aircraft in Australia and concludes with the departure of the horses to a quarantine station and the cleaning of the transfer facility and airstalls involves handling of and contact with the horses by numerous people—grooms and veterinarians who might have travelled with the horses by air, import agents, grooms and veterinarians meeting the horses at the airport, transport drivers, representatives of studs and owners, and waste disposal, cleaning, security and other subcontractors. Because of the number of people involved and the number of AQIS officers responsible for the various associated tasks (sometimes in relation to the same people at the same or different times), it is critical that there be a single person who is familiar with the entire process and is responsible for supervising and coordinating the various clearance procedures and biosecurity tasks. Before August 2007 there was no such person.

In December 2007 AQIS issued revised standard operating procedures applying to the clearance and quarantine of horses. Those procedures deal with the clearance of the horses at the airport, their transport to the quarantine station, and the management of their quarantine. Notwithstanding that officers of Biosecurity Australia had some involvement in the formulation of some of the procedures, the sequence of activity I have just described should be examined and reviewed by Biosecurity Australia, or some other qualified body, in order to identify the biosecurity risks and be satisfied that they are being adequately dealt with in the revised procedures.

At present, the airports where imported horses land are Sydney (Kingsford Smith) Airport and Tullamarine Airport in Melbourne. At Sydney Airport there is a fenced area in which the horses are unloaded and transferred to the waiting transport vehicles. At Tullamarine there is no such enclosure. At each airport there should be an enclosure and facilities for loading and transferring the horses that allow biosecurity procedures to be carried out effectively and that minimise any danger or risk to the horses and those handling them. Because people who have contact with the horses at the airport might be required to

shower and change their clothes, there should be amenities at the airports that allow this to occur in a supervised way.

The evidence before the Inquiry made it apparent, particularly in relation to activities at airports, that there was uncertainty about AQIS officers' power to establish or control the area in which the horses are to be unloaded and transferred to the waiting transporters. The *Quarantine Act 1908* should be reviewed with a view to ensuring that AQIS officers have all the necessary powers in this regard.

Post-arrival quarantine

Biosecurity Australia has not conducted any inspection or analysis to review the standard operating procedures issued in December 2007. This should occur. The reviewer should also review the current import conditions dealing with biosecurity risks in the quarantine stations after the reviewer has inspected and analysed activities there.

The standard operating procedures issued in December 2007 regulate the movement of veterinarians, farriers and others entering and leaving quarantine stations. To ensure that the quarantine responsibility is a reasonably shared one, a condition of the entry to the quarantine stations should be insistence on an obligation to report suspected breaches of quarantine procedures.

The layout and structures at Eastern Creek Quarantine Station, and to a lesser extent Spotswood, are not conducive to effective implementation of biosecurity measures. They need to be reviewed and improved. Such a review should have regard to a number of factors:

- (a) the necessity for a point of entry and exit at which people who are authorised to enter can be monitored, can shower in and out and can comply with other biosecurity requirements
- (b) the need for suitable means of electronic surveillance, including closed-circuit television
- (c) the need for a secure place to store chemicals, drugs, instruments and equipment for use by people attending the quarantined horses
- (d) the desirability of having horse stalls and yards that are separated from the main stalls and yards in the horse enclosure, to enable isolation of horses suspected or found to be suffering from contagious or infectious diseases
- (e) the desirability of having separate areas in the quarantine station to hold horses forming part of a single quarantine intake but that have been imported from different regions or have undergone pre-export quarantine in different places.

The adequacy of staffing at the stations for the quarantining of horses must be reviewed to take account of the activities and procedures contained in or required by any operating procedure that is finally adopted. Budgets for the quarantine stations must then be prepared to fund fully that level of staffing without in any way adversely affecting any other activities and functions of the quarantine station.

As to the various matters I consider must be reviewed, some of the complete solutions might take some time to be devised. Many of the recommendations I make, however, can, and should, be implemented now and adapted as and when the results of detailed reviews emerge.

Recommendations

In the foregoing summary I have identified many matters that are the subject of recommendations. There are two further matters that must be covered by my recommendations. They are that there be someone who has overall responsibility for the implementation of biosecurity measures that are put in place, and that there be someone whose responsibility is to check that those measures are being implemented.

As to the first matter, there is a need within the structure of AQIS for one person in senior management to be made expressly responsible and accountable for the importation of horses. That is particularly so because of the number of different AQIS national programs and regions engaged in the formation or implementation of policy for the importation of horses and the position and role of Biosecurity Australia. The exposure recommendations proposed that this person head a new section within AQIS. I accept that at the present time this may not be practical having regard to AQIS's current structure and the fact that it is the subject of a review by the Quarantine and Biosecurity Review Panel chaired by Mr Roger Beale AO. I do recommend, however, that a person be given that responsibility and that, at least pending the outcome of the review, that person be at the level of Senior Executive Service within the existing structure. The identity and position of the person to be made so accountable and responsible is a matter for the Secretary of the department but nonetheless urgent.

As to the second matter, there are three areas in which the implementation of biosecurity measures must be checked on a regular basis. They are the proposed written procedures for pre-export quarantine facilities; the other requirements imposed by the import conditions before a horse is transported to Australia; and the operating procedures for the clearance and quarantine of horses once they arrive in Australia.

Compliance in each of these areas must be the subject of regular checking and reporting to the Minister. The person or body to undertake that function should not be AQIS or Biosecurity Australia, or an officer of either organisation, because of the need for independence, detachment and the restoration of industry and public confidence. I recommend that an Inspector General of Horse Importation be appointed to carry out those functions.

The reasons for most of my recommendations and the form they take should be obvious from the account of the events contributing to the outbreak of equine influenza that occurred in Australia in August 2007. Some of the other recommendations, including those in relation to the appointment of an Inspector General, are deserving of further discussion: that occurs in Chapter 14.

I make the following recommendations.

The officer responsible for importation of horses

- 1 That the Secretary of the Department of Agriculture, Fisheries and Forestry designate, without delay, a Senior Executive Service officer to be primarily responsible and accountable for the importation of horses into Australia and to that end to have the power to exercise all necessary authority.

An Inspector General of Horse Importation – External Auditor

- 2 That there be established the position of Inspector General of Horse Importation, the duties of that position being:
 - (a) to check, by inspection and audit at least once every 30 months, that operations and procedures at each approved pre-export quarantine premises are documented and being complied with
 - (b) to check, by inspection and audit from time to time at the Inspector General's discretion, that import conditions covering the period until horses arrive at an airport in Australia are being complied with
 - (c) to check, by inspection and audit at least once every 30 months, that operations and procedures applying from when horses arrive at an airport in Australia until the completion of post-arrival quarantine are documented and being complied with
 - (d) to report in writing at least once every 12 months to the Minister responsible for quarantine on the results of such inspections and audits and such other related matters as the Inspector General thinks necessary.

- 3 That the position of Inspector General of Horse Importation:
 - (a) have such powers and authority and be subject to all protections necessary to enable the performance and discharge of the duties set out above
 - (b) be terminated after five years
- 4 That the person holding the position of Inspector General of Horse Importation:
 - (a) be appointed by the Governor-General in Council following public advertisement
 - (b) be appointed for a term of five years only or for such lesser term as may remain at the time of appointment
 - (c) receive such remuneration and other benefits as fixed or recommended by the Remuneration Tribunal
 - (d) be a person with expertise in equine affairs and with such other qualifications and experience as the Governor-General in Council considers appropriate
 - (e) not hold or take other employment or consultancies that might give rise to an actual or perceived conflict of interest with the duties of Inspector General
 - (f) be obliged to submit to any medical examination reasonably required by the Minister responsible for quarantine before or during the term of appointment for the purpose of assessing his or her suitability for the position
 - (g) shall not be, or have been within the two years immediately preceding the appointment, employed or engaged by the Department of Agriculture, Fisheries and Forestry.
- 5 That the person holding the position of Inspector General of Horse Importation may be removed in the following circumstances only:
 - (a) automatically
 - (i) on bankruptcy or on an application to take the benefit of a law for the relief of bankruptcy
 - (ii) on conviction for an indictable offence

or

- (iii) on loss or suspension of any licence or authority to practise his or her regular profession
- (b) by dismissal by the Governor-General in Council for proved misconduct in or relating directly or indirectly to the performance of his or her duties
- (c) by resignation in writing to the Minister responsible for quarantine
- (d) on certification by two medical practitioners of mental or physical incapacity to perform the duties of Inspector General.

Pre-export quarantine

- 6 That premises be used for pre-export quarantine only if they have been approved by the officer responsible for the importation of horses and only if they have adequate biosecurity precautions that are the subject of documented procedures that can be audited. The import conditions for horses shall include a requirement that pre-export quarantine premises have been so approved.
- 7 That the officer responsible for the importation of horses arrange for Biosecurity Australia or another qualified body to inspect and review the activities and events that occur from the time horses enter pre-export quarantine until the time they arrive at an airport in Australia, in order to identify any biosecurity risks and recommend any necessary changes to import conditions or other requirements. This inspection and review shall be performed without delay for each country or region from which horses are imported to Australia, and it should take account of my other recommendations and comments in this report.
- 8 That the import conditions for horses include that a blood sample be taken while a horse is in pre-export quarantine. Part of the sample is to be retained in the country of export and another part of that sample is to be transported to Australia, preferably with the horse. Both parts are to be retained for at least three months.
- 9 That the import conditions for horses include that the horse be tested for equine influenza at a time as close as practicable to the end of the pre-export quarantine period. Until more sensitive and specific detection tests become available, an agent test for influenza A—either a quantitative PCR or an antigen-capture ELISA test—should be used.
- 10 That the import conditions for horses include that the operations and procedures at the pre-export quarantine premises may from time to time, be inspected and audited by or on behalf of the Australian Government.

- 11 That the import conditions for horses specify, based on advice from Biosecurity Australia that is reviewed at least annually, the vaccines for equine influenza to be administered to horses before they are exported, taking account of the countries or regions from which the horses are exported. If there are commercially available vaccines that contain representatives of currently circulating strains, the import conditions should specify that the horses be vaccinated using that vaccine or one of those vaccines. Otherwise, the conditions should specify the vaccine or vaccines that may be used, based on the advice of Biosecurity Australia.
- 12 That the import conditions for horses specify that there be available for inspection at the port of loading and produced on the horse's arrival in Australia, certification (including in electronic form) that the horse has been vaccinated, has had a blood sample taken during pre-export quarantine, and has passed a suitable detection test, currently either a quantitative PCR or an antigen-capture ELISA test for influenza A.
- 13 That, before a horse is loaded on to an aircraft or vessel for carriage to Australia, AQIS verify that there exists such certification as is required by its import conditions up to the time the horse arrives at the airport of departure and that the horse complies with those conditions. This could be done by facsimile or electronic communication with AQIS officers in Australia.

Airport facilities

- 14 That the facilities for unloading and transferring of horses at Sydney (Kingsford Smith) Airport be upgraded without delay, following the advice of experts in biosecurity containment, so as to enable appropriate biosecurity precautions to be taken effectively and to minimise the risk of injury to horses and those handling them. The facilities should include at least one padded box or stall sound-proofed to the extent that it is reasonable to do so.
- 15 That facilities for the unloading and transferring of horses at Tullamarine Airport in Melbourne be constructed urgently, upon advice of experts in biosecurity containment, to enable adequate biosecurity precautions to be taken effectively and to minimise the risk of injury to horses and those handling them.
- 16 That there be provided without delay at Sydney (Kingsford Smith) and Tullamarine Airports facilities to enable people who might have had contact with imported horses to shower and change their clothes, under supervision, before leaving the airport.

- 17 That there be similar facilities for the unloading and transfer of horses at any other airport in Australia that might receive horses imported from places other than New Zealand.

Post-arrival quarantine stations

- 18 That there continue to be in Australia government controlled and operated post-arrival quarantine stations for horses.
- 19 That, in the absence of other satisfactory government controlled and operated post-arrival quarantine stations becoming available before the options to renew the leases of Eastern Creek and Spotswood Quarantine Stations expire, those options be exercised.
- 20 That the facilities at Eastern Creek and Spotswood Quarantine Stations be reviewed by AQIS in consultation with experts in biosecurity and interested parties including state and territory governments, import agents, veterinarians, farriers, operators of private quarantine stations, and representatives of horse owners, horse racing organisations and equestrian organisations. There should in any event be constructed without delay, an adequate supply of hygienic, modern showering facilities and places of entry and exit to the stations and the horse sections of them that can be supervised and monitored continually. There should also be provided at those stations as soon as is practicable suitable means of electronic surveillance, including closed-circuit television; a secure place to store chemicals, drugs, instruments and equipment for use by people attending the quarantined horses, and a set of horse stalls and yards separate from the main stalls and yards to enable isolation of horses suffering from contagious or infectious diseases. These reviews should also consider the desirability of separate areas in quarantine stations to hold horses forming part of a single quarantine intake but that have been imported from different regions or have undergone pre-export quarantine in different places. The reviews should be carried out without delay, and the two quarantine stations should be upgraded in accordance with the recommendations of the reviews.
- 21 That each government controlled and operated quarantine station have sufficient staff to carry out properly all activities and measures required by the current operating procedures dealing with the quarantine of horses.
- 22 That the budgets for airport reception of horses and government controlled and operated quarantine stations be determined so as to be sufficient to fund the operations of the Quarantine Stations in accordance with these recommendations and any further procedures and requirements that are laid down from time to time.

Operating procedures for clearance and quarantine of horses

- 23 That the officer responsible for the importation of horses arrange for Biosecurity Australia to conduct within six months, an inspection and review of the process of horse importation from the time horses arrive in Australia until the completion of their post-arrival quarantine in order to:
 - (a) identify all relevant biosecurity risks
 - (b) review the standard operating procedures for clearance and quarantine of horses, as issued on 5 December 2007
 - (c) recommend any changes that should be made to those operating procedures, after taking account of my other recommendations and comments in this report.
- 24 That the operating procedures require that there be identified a person who has overall responsibility for the various clearance procedures and biosecurity tasks to be performed in the course of unloading horses at an airport and transferring them to a quarantine station.
- 25 That the operating procedures require that the manager of a quarantine station be responsible for ensuring that a written report on compliance with procedures is prepared and reviewed daily and that any non-compliance and corrective action are recorded.
- 26 That the operating procedures require that the duties of any people responsible for maintaining 24 hour security at a quarantine station (whether they be AQIS officers or private contractors) are recorded in writing and that those people have received training in relation to biosecurity risks sufficient to instil an appreciation of such acts or circumstances as might give rise to biosecurity risks.
- 27 That the operating procedures require, as a condition of entry for all non-AQIS personnel to a quarantine station, that each person report any suspected breach (by that or any other person) of quarantine procedures in the quarantine station and that a person may be excluded from entry to a quarantine station in the event of a breach of such procedures by that person or in the event of a failure of that person to report any suspected breach.
- 28 That the officer responsible for the importation of horses arrange for Biosecurity Australia to review, at least once every two years, the operating procedures to ensure that they adequately identify and manage the risk of entry and spread of equine influenza associated with the importation of horses into Australia. The outcome of each such review should be the subject of a written report and recommendations to the person responsible

for the importation of horses and the Executive Director of AQIS. A determination should then be made as to whether any, and if so what, changes should be made to the operating procedures.

- 29 That there be prepared operating procedures or a manual that:
 - (a) clearly sets out the procedures to be implemented by AQIS personnel at each stage of the importation process, including the documentation that must be completed at each stage
 - (b) describes the potential hazards and risks in sufficient detail to enable a quarantine officer to understand why particular actions or processes are necessary and to appreciate what actions or circumstances might give rise to biosecurity risk
 - (c) sets out the powers available to quarantine officers (under legislation and otherwise) in particular places or circumstances to ensure that adequate biosecurity precautions are taken.
- 30 That the officer responsible for the importation of horses ensure that:
 - (a) up-to-date copies of operating procedures or manuals setting out the procedures to be implemented are available both in soft-copy form on the AQIS intranet site and in hard-copy form at any premises where tasks associated with horse importation are ordinarily performed
 - (b) AQIS personnel involved in the importation of horses are trained in all relevant aspects of procedures relating to the importation of horses
 - (c) AQIS personnel taking up duties involving tasks related to horse importation and not having performed such tasks for more than 12 months undergo proper training in the relevant procedures before commencing their duties.
- 31 That the officer responsible for the importation of horses prepare a report to the Executive Director of AQIS that:
 - (a) identifies (by category) all non-AQIS personnel involved in the importation of horses, including post-arrival quarantine, from countries other than New Zealand
 - (b) identifies the requirements in respect of biosecurity that AQIS has of those people
 - (c) identifies the source of those requirements—for example, by import conditions, agreement or understanding, whether formal or informal, with AQIS, and compliance agreement under s. 66B of the *Quarantine Act 1908*

- (d) assesses whether compliance with those requirements can be and is adequately being enforced
- (e) recommends measures to be taken to rectify any shortcomings.

Post arrival quarantine

- 32 That the import conditions for horses include that the nasopharyngeal swabs taken within 24 hours of arrival and five days after the last horse arrives in post-arrival quarantine be divided and the swabs made subject to a quantitative PCR test and a 'rapid' immuno-assay test to detect influenza A. The operating procedures should also require that these additional tests be conducted.
- 33 That the import conditions for horses include that each horse be tested for equine influenza as close as practicable before the end of the quarantine period and that a negative result for that test be available before the horse may be released from quarantine. Until more sensitive and specific detection tests become available, an agent detection test for influenza A - either a quantitative PCR test or an antigen-capture ELISA test - should be used for that purpose.

Biosecurity Australia

- 34 That Biosecurity Australia undertake and complete within 12 months a non-regulated but formal import risk analysis relating to the importation of horses from the countries and regions from which Australia currently permits such importation, and make such recommendations for any changes to policies for importation as are warranted by its risk analysis to the officer responsible for the importation of horses and the Executive Director of AQIS.
- 35 That Biosecurity Australia review that formal import risk analysis at least once every two years to take into account any relevant developments in scientific knowledge—specifically testing methods, vaccines, vaccination procedures and other matters that affect biosecurity. Reports on the reviews should be provided to the officer responsible for the importation of horses and should contain recommendations for any necessary changes to policies for importation.

Review of the Quarantine Act

- 36 That the *Quarantine Act 1908* be reviewed in order to identify amendments necessary to ensure that the Act clearly and adequately confers all relevant powers to ensure the biosecurity of horse importation and quarantine and to give effect to these recommendations.

Recovery of quarantine expenses

- 37 That the fees charged in relation to the importation and quarantining of horses be reviewed and fixed without delay having regard to the following factors:
- (a) the cost of the drafting, preparation, printing, distribution, publishing, collection, checking, recording and filing of all documents, questionnaires, certificates and forms concerning the importation and quarantining of horses
 - (b) the cost of employing all people paid by the Commonwealth and engaged in work concerning the importation and quarantining of horses, including the Inspector General and the officer responsible for the importation of horses and their staff
 - (c) a risk factor that has regard to risks to the Commonwealth, its employees, contractors and all other people, things and animals arising out of, or such as could arise out of, any act or omission for which the Commonwealth might be held liable concerning the importation and quarantining of horses and to the costs that might be incurred by an event or events of the kind that occurred in August 2007
 - (d) the costs of all drugs, implements, tools, laboratories, establishments, lands, places, buildings and things used or held, licensed or leased or owned by the Commonwealth for or in respect of the importation or quarantining of horses. Depreciation, amortisation, holding and all other costs should be taken into account in calculating these costs
 - (e) costs and fees charged by other individuals (if any) carrying out the same or similar work to that done by AQIS
 - (f) any costs of preparing, auditing, reviewing, checking or training in relation to the work instructions and standard operating procedures
 - (g) an additional and reasonable cost for contingencies of not less than 10 per cent of the sum of all other costs.

- 38 That, until the review of those fees has been completed, the fee charged by the government controlled and operated quarantine stations for thoroughbred stallions temporarily imported into Australia be not be less than \$165.00 plus GST a day and the fee for all other horses be not less than \$65.00 plus GST a day. No discount is to be allowed for the number of horses in a consignment.

1 Background

1.1 This Inquiry and its terms of reference

Commissions of inquiry are creatures of the executive, appointed more often than not to inquire into a branch of the executive when it appears that there may have been a failure in administration or misconduct within it, especially if there have been, in consequence, financial cost and damage to the public and public confidence. At the beginning, the person conducting the inquiry cannot know along which paths the evidence will lead, and the end that will be reached. Sometimes evidence has to be considered in some detail with a view to excluding possibilities, a course that would not always be available in a conventional adversarial proceeding. That certainly happened here. To some extent it shaped the form this report takes.

In September 2007 the Commonwealth Parliament amended the *Quarantine Act 1908* to enable the Minister for Agriculture, Fisheries and Forestry to appoint a person to conduct a commission of inquiry into the August 2007 outbreak of equine influenza in Australia.¹ On 25 September I was appointed under s. 66AY of the Act to inquire into and report with respect to the following:

- (a) The circumstances that have contributed to the outbreak of equine influenza in Australia;
- (b) The need for any strengthened biosecurity procedures for quarantine management of imported horses.

I was also authorised, as I deemed necessary during the course of the Inquiry, to inquire into such other matters incidental to those just cited as might assist the Minister in considering my report.²

It is important to note that the terms of reference do not require me to be concerned with questions of how the virus spread once it was in the general horse population or with the losses that might have been suffered. The terms of reference make it clear that the Inquiry is concerned only with identifying how the virus initially came to enter the general horse population and with making recommendations to ensure, as far as possible, that such a situation does not

¹ Section 66AY.

² A copy of the instrument appointing me under s. 66AY and containing my terms of reference is reproduced at Appendix A.

arise again. In relation to the latter, it seemed to me that it was pertinent to have regard not only to the relevant conduct of the Australian Quarantine Inspection Service and Biosecurity Australia before the outbreak but also their conduct and attitudes in response to it, in order to assess the extent to which AQIS and Biosecurity Australia have learnt from the outbreak.

That is not to say that events outside quarantine have no relevance. It was necessary, for example, to try to identify the first horse in the general horse population to contract the virus. Obviously, had I been able to do so the chances of identifying the precise means of escape of the virus would have greatly increased.

The Inquiry that I have been required to conduct is a little different from an inquiry under the *Royal Commissions Act 1902*, although s. 66AZE of the Quarantine Act confers on me almost all the powers the Royal Commissions Act confers on commissioners appointed under that Act.

Sections 66AZB, 66AZC and 66AZD were innovative provisions enacted to ensure prompt attention to the emergency that had arisen and full cooperation by all the staff of AQIS. These sections provide that the Director of Quarantine may arrange for the secondment of officers to the Inquiry subject to appropriate protections. Such an arrangement was made, and the Inquiry had the assistance of investigators from the Compliance and Investigation Program of AQIS. Most of those investigators had previously trained and worked with either state or federal police forces. Their usual duties involve the investigation of quarantine breaches, the taking of statements and the preparation of briefs for the Commonwealth Director of Public Prosecutions where appropriate.

Immediately following the outbreak of equine influenza, officers from the Compliance and Investigation Program had been instructed to investigate how the virus might have escaped from a place or premises under quarantine control. It was after that investigation had begun that I was appointed to conduct this Inquiry. A written protocol was then agreed between the Secretary of the department and me to ensure the independence of the staff and the confidentiality of information they obtained whilst seconded to the Inquiry.³ They interviewed witnesses, obtained documents, analysed telephone records, made fresh investigations as directed by Counsel Assisting, and participated in the preparation of the statutory declarations or statements of relevant witnesses.

The Australian Government Solicitor was engaged as solicitor assisting the Inquiry and Counsel Assisting were appointed. I also had the assistance of experienced and efficient administrative and support staff. Those involved are identified in Appendix B. Their contribution was crucial to the completion of

³ The members of the investigation team are identified in Appendix B.

the Inquiry and its report within the time provided by my instrument of appointment.

The Inquiry conducted public hearings over 44 days. Thirteen parties were given leave to appear and were represented by legal advisors.⁴ Evidence was taken from more than 260 witnesses.⁵ The parties were permitted to cross-examine the witnesses who were called. Counsel Assisting examined witnesses in chief and re-examined them after all other questioning had concluded. Of those who were represented, the practice was to allow the legal advisors appearing in the interest of the witness to cross-examine last.

About 80 000 documents were produced to the Inquiry and about 2000 of those documents were in evidence before me. Written and oral submissions were received from the represented parties as well as from a number of other persons and organisations who either did not seek to attend or were not formally represented at the hearing.⁶ I read, listened to and considered all of those submissions.

The Inquiry was fortunate in obtaining the expert advice of Dr James Gilkerson of Melbourne University and Dr Richard Newton of the Animal Health Trust at Newmarket in the United Kingdom. Each of these men is a highly qualified veterinary scientist pre-eminent in his field. Many of the matters I have had to consider are very technical and required the attention and explanation of experts.

I had the advantage of inspecting the reception area for horses at Kingsford Smith Airport in Sydney and the Quarantine Station at Eastern Creek, as well as the area where horses are disembarked at Tullamarine Airport in Melbourne. I also inspected Spotswood Quarantine Station in Victoria and the two quarantine compounds at Sandown Racecourse, which are operated by Racing Victoria Limited. All inspections were particularly informative.

During November 2007, at the beginning of the Inquiry, I had the opportunity to visit and interview Dr Newton at the Animal Health Trust at Newmarket. I was accompanied by a First Secretary at the Australian High Commission, who helped me prepare a record of the information gained from Dr Newton.⁷

The evidence does not enable me to make a precise finding as to how equine influenza escaped into the general horse population. It has enabled me, however, to reach clear conclusions concerning, principally, inadequacies and

⁴ See Appendix C.

⁵ See Appendix D.

⁶ A list of the individuals and organisations providing submissions is contained in Appendix E.

⁷ EII.0008.001.0150.

breakdowns in the practices and procedures relating to the importation and quarantining of horses. In order to explain those conclusions, it has been necessary for me to summarise the evidence about the virus and describe the events surrounding the outbreak in this country. In the course of that summary I comment where appropriate on the conduct of people, principally officers of AQIS, import agents, owners and operators of studs, grooms, private veterinarians and farriers.

Those whose conduct is the subject of adverse comment were given notice that their conduct was to be examined and that it might be the subject of adverse comment and criticism. This was provided, among other things, by the opening of Counsel Assisting⁸, questions asked during the course of the hearing, Counsel Assisting's detailed final submissions⁹, the publication of exposure recommendations¹⁰, notice of possible adverse findings¹¹ and the published issues paper.¹²

During the Inquiry I was conscious of the possibility that not all the staff and management of AQIS necessarily had the same interests, particularly in circumstances in which their recollections varied as to the occurrence of material events, and they occupied positions of varying levels of authority. I raised that matter with counsel representing the Commonwealth more than once.¹³

There is one further point to make about commissions of inquiry. In them, interested individuals and organisations are given the opportunity to participate by providing submissions or other information. Parties before the inquiry may examine witnesses, both those appearing voluntarily and those appearing under compulsion, offer evidence and make submissions. All this was done publicly in this Inquiry. During the course of an inquiry those whose performance might be under examination have the opportunity to offer their views and opinions about the matters under consideration. Those views and opinions can be, and were here, forensically tested, challenged or accepted and therefore evaluated publicly and those whose conduct might have come into question had the opportunity to say what they wished to say.

Public inquiries provide a rare opportunity for direct participation by the public. Their purpose is not only exposure of shortcomings and the remediation of them, but also the restoration of public confidence. Public confidence is

⁸ T7–T13.

⁹ SUBS.INQ.001.0001.

¹⁰ EIL.DOCS.002.0001.

¹¹ EIL.DOCS.004.0001 (Confidential); EIL.DOCS.005.0001 (Confidential).

¹² EIL.DOCS.001.0001.

¹³ T18–T19; T918–T982.

unlikely to be restored if recommendations made after a full public inquiry and participation are allowed to be disregarded or amended by those whose failures have caused or contributed to the damage to public confidence.

I emphasise that what I say on this applies to non-elected officials, and not to members of the executive, who, of course, will consult and formulate policy as they see fit.

Finally, I refer to the wider review of AQIS, which was announced after I began this Inquiry.¹⁴ I am conscious of the subject matter of that review, which includes to provide recommendations on the appropriateness, effectiveness and efficiency of governance and institutional arrangements to deliver biosecurity, quarantine and export certification services. That does not absolve me of my responsibility to report, but it does oblige me to make clear that it is only with horse importation, biosecurity and quarantine that I am concerned and that—except for the recommendations I make with respect to procedures and the appointment and role of an Inspector General of Horse Importation, which is a separate and, I believe, crucial role—those of my recommendations having structural implications might need to be reshaped in a manner that is compatible with any recommendations resulting from the wider review and accepted by the executive.

I now turn to the outbreak of equine influenza that occurred in Australia in August 2007 and its social and economic effects.

1.2 The equine influenza outbreak in Australia

Equine influenza is a virus that causes acute respiratory disease in horses, donkeys, mules and zebras. Before August 2007 Australia was free of the virus, as was New Zealand. That country maintains high standards of biosecurity, and until August 2007 the movement of horses between it and Australia was generally unrestricted.

The virus is endemic in Europe (apart from Iceland) and in North and South America. Sporadic outbreaks occur in these areas, but they are usually minor because of the practice of vaccination. Epidemics do occur, though: in the past 20 or so years there have been serious ones in South Africa (1986 and 2003), India (1987), Hong Kong (1992), Dubai (1995) and the Philippines (1997). Most of these epidemics were associated with the arrival by air of sub-clinically infected horses and inadequate post-arrival quarantine procedures. Each was widely discussed, both publicly and in scientific circles.

¹⁴ The Quarantine and Biosecurity Review was announced on 19 February 2008 by the Minister for Agriculture, Fisheries and Forestry, the Hon. Tony Burke MP.

Australia has a long history of importing horses. The earliest recorded imports came with the First Fleet, in 1788. Air importation began in 1973. Since that time the number of horses imported by air has increased markedly: in each of the past 10 years the number imported by air from countries other than New Zealand exceeded 500; in 2006 it was 897. Those horses included thoroughbred and standardbred stallions imported for the Australian breeding season, which begins on 1 September each year. At the end of the season most of the stallions are exported to Northern Hemisphere countries to participate in breeding seasons there. Such stallions are commonly referred to as ‘shuttle’ stallions.

With the exception of horses from New Zealand, horses brought into Australia for release into the general horse population must comply with conditions imposed by their import permits, before and after entry. Among these are vaccination against equine influenza and the undergoing of a period of pre-export quarantine, or PEQ, and a further period of post-arrival quarantine, or PAQ. In August 2007 PAQ for horses took place at Eastern Creek Quarantine Station in New South Wales and at Spotswood Quarantine Station or at the two quarantine compounds adjacent to Sandown Racecourse in Victoria. There are no other quarantine stations for horses in Australia.

Eastern Creek receives up to 14 intakes of imported horses a year. In August 2007 each intake was required to spend no fewer than 14 days in PAQ, beginning after the arrival of the last horse in the intake. Two of the annual intakes, scheduled for July and August, usually exclude mares in order to facilitate importation of the shuttle stallions. In 2007 the horses for the second of those intakes arrived at Eastern Creek between 3 and 8 August. Fifty-two horses arrived in six consignments—two consignments from the United States, two from the United Kingdom, one from Ireland, and one from Japan. The consignment from Japan, which arrived on 8 August, consisted of nine horses that were offloaded in Melbourne and quarantined at Spotswood and four horses that were flown on from Melbourne to Sydney. Most of the 52 horses were shuttle stallions destined for the Coolmore or Darley Studs in the Hunter Valley of New South Wales. One was to stand at Arrowfield Stud, near Scone. A number of the horses were extremely valuable, attracting in aggregate service fees that could exceed \$40 million a year.

Each of the 52 horses was certified as having been vaccinated against equine influenza in May, June or July 2007. On 17 August, whilst in quarantine at Eastern Creek, the Coolmore stallion Encosta De Lago, in a stall in row E of the stables, was observed to have a slight cough, some nasal discharge and an

elevated temperature. At the time it was thought the stallion probably had a low-grade upper respiratory tract infection.¹⁵

On 20 August another Coolmore stallion, Danehill Dancer, stalled next to Encosta De Lago, was observed to have a slight nasal discharge and an elevated temperature. Two other Coolmore horses in the same row, Aussie Rules and Oratorio, were also observed to have a slight nasal discharge¹⁶ and Elusive Quality, one of the Darley stallions in row B, was observed to have an elevated temperature but no nasal discharge or coughing.¹⁷

On the same day nasal swabs and blood samples were taken from all the stallions in rows E and B of the stables at Eastern Creek. The swabs and serum were sent for analysis to the CSIRO Australian Animal Health Laboratory, at Geelong in Victoria. On 23 August five of them returned positive results for equine influenza on a real-time polymerase chain reaction, or qPCR, test. In addition, a serological analysis of blood taken from the stallions on 24 and 25 July and 8, 13 and 20 August using a haemagglutination inhibition assay showed that Encosta De Lago, Snitzel, Fox & Firkin, and Antonius Pius had been infected with the equine influenza virus.¹⁸

On 21 and 22 August horses outside Eastern Creek Quarantine Station began to show symptoms of equine influenza. On 21 August horses at Cooranbong on the Central Coast of New South Wales, at Arcadia, near Galston, north-west of Sydney, and at Tamworth in north-western New South Wales showed symptoms of the virus. On 22 August two horses in the Centennial Parklands Equestrian Centre, in Sydney's eastern suburbs, showed symptoms. On 24 August nasal swabs and blood samples were collected from 11 horses at the Centennial Parklands site. The nasal swabs were sent to the Elizabeth Macarthur Agricultural Institute in New South Wales for testing. The blood was sent to the Australian Animal Health Laboratory. On the evening of 25 August the results of the qPCR testing of the nasal swabs were positive for equine influenza.

The horses in the Centennial Parklands Equestrian Centre were the first horses in the general Australian horse population ever to test positive to equine influenza. On 25 August, pursuant to its obligations as a member of the World Organisation for Animal Health (generally known as the OIE¹⁹), Australia

¹⁵ AQIS.1000.044.0004 at 0019.

¹⁶ AQIS.1000.044.0004 at 0022.

¹⁷ WIT.REX.001.0001 at para. 26.

¹⁸ CI.0001.046.0004; AHT.0001.001.0026; WIT.AAHL.001.0244 . The sero-conversions of Wells High Class, Librettist, Country Reel and Jorrit fan Stal Redia between PEQ and the first PAQ serum samples was probably caused by the horses' vaccination just before PEQ and not by any active infection.

¹⁹ It was formerly known as the Office International des Epizooties.

notified that organisation of the outbreak of equine influenza at the Centennial Parklands site. Because this was Australia's first outbreak of the virus, the horse population was especially susceptible (or naive), with the result that the infection spread very quickly throughout the communities in contact with it.

The cases of equine influenza at Cooranbong, Arcadia, Tamworth and Centennial Parklands, and another 30 or so cases reported during the next few days, had a common link: each of the horses involved had attended an equestrian competition near Maitland, in New South Wales, that had been organised by the Ranch Riding Club and was held over three days starting on Friday 17 August. More than 200 horses competed at the event, which took place at two locations—Carroll's Ranch and Rutherford polocrosse ground, both at Anambah Road, Anambah. A number of the horses that attended the event developed symptoms of equine influenza within a week of attending and were later diagnosed as infected. The extent of the spread of the virus among the horses attending the event is consistent with the presence of an infected horse that infected other horses. Anecdotal evidence of the presence of a coughing horse—the identity and owner of which I was unable to establish—would appear to confirm that this is likely to have occurred.

Subsequent analyses established that the virus that infected the horses at Eastern Creek and the general horse population was the same strain of equine influenza virus A sub-type H3N8. That virus, isolated from a sample from Centennial Parklands, is described as A/equine/Sydney/2888-8/2007 H3N8 (abbreviated to A/eq/Sydney/07 or Sydney/07). An isolate from Eastern Creek is described as A/equine/Eastern Creek/2834/2007 H3N8 (abbreviated to A/eq/Eastern Creek/07 or Eastern Creek/07). The strains are identical.

1.3 An outbreak of equine influenza in Japan

On 15 August 2007 a racehorse at the Miho Training Centre in Ibaraki prefecture, on the Japanese island of Honshu, tested positive to equine influenza. Bans on movement were introduced for racecourses and training centres where thoroughbred and pleasure horses were located. On 16 and 17 August further horses tested positive, and during the weekend of 18 and 19 August six race meetings scheduled at racecourses on the island of Hokkaido were cancelled.²⁰

Japan notified the OIE of the outbreak on 28 August. The notification records that the first outbreak occurred on 14 August, in 21 horses at a racehorse farm

²⁰ EII.0006.003.0272.

in Ritto City in Shiga prefecture, on Honshu.²¹ The following day the disease was identified in nine horses in Miho Training Centre.²² Outbreaks also occurred on the island of Hokkaido, the earliest being reported as starting on 14 August in the town of Urakawa. Other outbreaks occurred among racehorses at the Sapporo and Hakodate racecourses.²³ The five PEQ premises where the 13 horses that arrived in Australia on 8 August underwent quarantine are on the island of Hokkaido.

The Japanese virus is also an H3N8 virus. Its shorthand description is Ibaraki/07 (sometimes Japan/07). Analysis of the HA1 genes of the Sydney/07 and Ibaraki/07 viruses shows that they are identical and have only a single nucleotide sequence difference when compared with a virus strain isolate obtained on 29 August in Pennsylvania in the United States.²⁴ That strain is described as Pennsylvania/07 (sometimes Philadelphia/07).²⁵

1.4 The social and economic effects of the outbreak

The social and economic effects of an outbreak of equine influenza virus in the Australian horse population were predictable and foreseen. The possibility of an outbreak itself was also foreseen but, as will appear, the Department of Agriculture, Fisheries and Forestry assured the Minister, effectively, that it would not happen here. As to the consequences in the event that it did, the third version of the Australian Veterinary Emergency Plan (AUSVETPLAN) for equine influenza, a draft of which had been published by the Department of Agriculture, Fisheries and Forestry and Animal Health Australia before August 2007, stated:

EI is likely to result in few adult horse deaths and will not lead to a dramatic long-term export ban. The major impact of the disease will arise from disruption to the use of horses for racing, breeding, recreation and tourism. The overall impact will depend to a great extent upon the time of the year when particular events normally take place, relative to the time of the outbreak.²⁶

Regardless of its timing, an outbreak would still have major financial and social impacts by disruption of employment in the racing business. Other

²¹ Japan subsequently notified the OIE in a follow-up report of an earlier outbreak amongst racehorses at a farm in Kitakyushu City, Fukuoka, on 12 August 2007.

²² DAFF.0001.051.3163 at 3186.

²³ DAFF.0001.526.0319; AHT.0001.001.0001 at 0021–0022.

²⁴ AHT.0001.001.0001 at 0021–0022.

²⁵ CORR.0005.004.0062.

²⁶ DAFF.0001.463.0197 at 0233–0234.

equestrian activities of economic significance were also likely to be postponed or cancelled, with consequent loss and social disruption.

Following confirmation of the presence of equine influenza in the general horse population on 25 August, an immediate 72-hour nationwide ‘horse standstill’ was imposed, in keeping with a recommendation of the Consultative Committee on Emergency Animal Disease, as part of a coordinated response plan consistent with AUSVETPLAN. Racing clubs and other equine associations were asked to cancel or postpone meetings and events.²⁷ By 31 August the standstills had been lifted in Western Australia, South Australia, Tasmania, the Northern Territory and Victoria because no equine influenza cases had been detected there. By that time 58 infected premises had been identified in New South Wales and Queensland.²⁸

The national standstill caused widespread economic and financial hardship for horse owners and associated businesses. Statewide bans on horse movement were maintained in New South Wales, Queensland and the Australian Capital Territory. Some four weeks after equine influenza was first detected in New South Wales, a four-colour zoning system was introduced as a means of controlling the spread of the virus and to enable some movement within affected areas. The zones were drawn according to the level of infection found, and movement was restricted both within and between zones.²⁹ By 30 September 2007, 3193 infected premises had been notified in New South Wales and Queensland.

On 17 September the National Management Group overseeing the response to the outbreak had granted approval of vaccination as a means of control in nominated buffer zones across New South Wales and Queensland³⁰; approval was subsequently extended to industry groups and owners of susceptible horse populations of high socio-economic value in New South Wales, Queensland and Victoria.

By 29 October 2007 the number of infected premises had more than doubled, to 7058.³¹ The last reported detection of equine influenza occurred on 25 December 2007.³² By this time over 8000 properties had been reported infected.³³

²⁷ AQIS.0002.004.0319.

²⁸ DAFF.1000.050.0224.

²⁹ DAFF.0001.214.0028.

³⁰ DAFF.0001.051.5980.

³¹ DAFF.0001.540.5490.

³² EIL.0008.001.0005.

³³ EIL.0008.001.0007.

By 31 January 2008, 50 000 horses in New South Wales and 62 000 horses in Queensland had been vaccinated.³⁴

The presence of equine influenza affected Australia's horse export markets: by 6 September 2007 Hong Kong, New Zealand, the Philippines, Singapore, the United Arab Emirates and Malaysia had suspended imports of horses from Australia³⁵; by 20 September 2007 Macau, France and Qatar had also notified Australia of their decision to suspend horse imports.³⁶ By March 2008 some degree of trade had resumed with Japan, Hong Kong, Macau, the Philippines and the United Arab Emirates.³⁷

Modelling carried out by the Australian Bureau of Agricultural and Resource Economics estimated that the costs resulting from the equine influenza outbreak during the period of the initial response, involving containment and eradication through restricted movement, reached \$560 000 a day for disease control and \$3.35 million a day in forgone income in equine businesses, including racing, farming and recreational enterprises.³⁸

Although racing had resumed in New South Wales and Queensland by 1 December 2007, Tabcorp Chief Executive Mr Elmer Funke Kupper estimated that by the time normal racing resumed in early 2008 the loss in turnover amounted to about \$327 million.³⁹

In January 2008 the parties to the Government and Livestock Industry Cost Sharing Deed in Respect of Emergency Animal Disease Responses (the EAD Response Agreement)⁴⁰ determined that eligible expenditure on the response under that agreement, including vaccination, had reached the (already revised) limit of \$64 million and, as a result, agreed to an upper limit of \$108 million.⁴¹ By 3 March 2008 it was estimated that the cumulative incidental costs of the outbreak estimated to be eligible as costs to be shared by the parties to the EAD Response Agreement had reached \$88 million.⁴² On 14 February 2008 the New South Wales Minister for Primary Industries, Mr Ian MacDonald, said the State Government had spent \$46 million on containing the disease and 100 000 horses had been vaccinated.⁴³

³⁴ EII.0008.001.0001.

³⁵ DAFF.1000.050.0318 at 0320.

³⁶ DAFF.0001.214.0028 at 0032.

³⁷ SUBS.DAFF.004.0001 at para. 4.

³⁸ DAFF.INQ.016.0001.

³⁹ EII.0008.001.0029.

⁴⁰ AQIS.0001.059.0006.

⁴¹ EII.0008.001.0009.

⁴² CORR.0006.001.0096; EII.0008.001.0059.

⁴³ EII.0008.001.0149.

The Queensland Government calculated that by 31 January 2008 the cost to it through the various schemes both initiated and contributed to by it was \$13.2 million, and it estimated that by 30 June 2008 the cost to it would be \$17.172 million.⁴⁴

At 28 February 2008 the Commonwealth Government had provided through its various assistance packages about \$227.9 million of the \$268.8 million committed directly to individuals and businesses whose primary source of income had been affected by the outbreak and the subsequent movement restrictions.⁴⁵

It is, in my opinion, unlikely that it will ever be possible to calculate accurately the total cost of the outbreak.

1.5 Warnings of the risk of equine influenza

Although until August 2007 Australia had been untouched by equine influenza, those responsible for national biosecurity were or should have been alert to the risk of its introduction to this country and the need for rigorous biosecurity measures, as the following examples demonstrate.

On 17 April 2003 an official of the New Zealand Ministry for Agriculture and Fisheries wrote to Dr Robyn Martin of Biosecurity Australia expressing concern about the possible introduction of equine influenza to New Zealand via Australia.⁴⁶ The New Zealand official gave this clear warning: '[Equine influenza is] the exotic disease most likely to be introduced and it would have serious financial implications'. New Zealand wanted to add a layer of biosecurity by increasing the number of vaccinations to three doses and by introducing qPCR testing of all horses while they were in 'pre-export isolation'—in effect both before and on arrival in Australia.⁴⁷

Dr Michael Hibbert in AQIS and Dr Martin thought these were unjustified requirements⁴⁸: the conditions of import for horses entering Australia provided adequate protection against the entry of the disease, they said.⁴⁹

In recent years South Africa has suffered two outbreaks of equine influenza, both of which gave rise to considerable publicity in the veterinary world. The first occurred in 1986. The second, in December 2003, was the subject of an

⁴⁴ CORR.0006.001.0016.

⁴⁵ CORR.0006.001.0096.

⁴⁶ DAFF.0001.756.0229.

⁴⁷ T2912; T3713.

⁴⁸ T3715.

⁴⁹ T3716.

inquiry.⁵⁰ Although the report of the inquiry appears not to have received any detailed consideration in the Department of Agriculture, Fisheries and Forestry, a summary of it at least was given to one of the department's senior national officers, Ms Narelle Clegg.⁵¹

Dr Phillip Widders, Chief Quarantine Officer (Animals) NSW, was alert to the risk in May 2004 and wrote of it to other regional officers on 21 May 2004, in his response to the Live Animal Imports Review:

Of all imports of live animals to Australia, the import of horses from countries other than New Zealand represents the greatest risk for introduction of serious exotic disease (equine influenza). I do not support any reduction in direct AQIS oversight of such imports ...

Equine influenza is the main quarantine risk associated with imports of horses from the northern hemisphere. Analysis of recent outbreaks of equine influenza in previously free countries such as South Africa, and recent outbreaks in Europe, indicate that vaccination against equine influenza does not protect against virus shedding, and that personnel such as veterinarians, grooms etc may act as vectors for dissemination of the virus to susceptible horses. In my view, the procedures associated with clearance of imported horses at Sydney Airport, if uncontrolled, represent a real risk for dissemination of equine influenza.

On 6 June 2004 Mr Graham Turner sent a copy of Dr Widders' response to Ms Jenni Gordon, then a senior manager in the department's animal and plant programs.⁵²

Dr Widders' evidence was that he discussed his response with other managers at a meeting attended by Ms Julie Sims and Mr Turner (of the New South Wales regional office) and Ms Kylie Lance and Dr Clegg (of the national program) much later in the year, in about October 2004.⁵³

By letter sent to the Minister for Agriculture, Fisheries and Forestry⁵⁴ in September 2004, Mr Andrew Ramsden, Chairman of the Australian Racing Board Ltd, expressed the concern held by the Board about the possibility of an outbreak in Australia. The letter was provoked by an AQIS proposal⁵⁵ that responsibility for the examination of horses recently imported into Melbourne might be devolved to private veterinarians employed by importers. The letter stated:

Equine influenza is the exotic disease that the Australian horse industry most fears. If equine influenza gained entry to Australia, it would close down

⁵⁰ EII.0001.001.0211.

⁵¹ T3457.

⁵² EII.0002.001.0032.

⁵³ T978, T1001.

⁵⁴ CORR.0005.002.0230.

⁵⁵ DAFF.0001.069.2306.

racing and other horse events for several months with catastrophic economic consequences. A quarantine breakdown is the only way Australia will be exposed to this exotic disease.

Mr Ramsden also referred to the part suspected to have been played by private veterinarians in both outbreaks in South Africa.

The Minister responded by a letter dated 10 January 2005⁵⁶ which had been drafted by officers in the department.⁵⁷ It stated that management of horses in quarantine would remain under the direct control of an AQIS veterinary officer until the horses' release from quarantine.

On 6 May 2005 Mr Ramsden wrote again to the Minister to express concern that since January of that year AQIS's veterinary officers had no longer had any direct involvement in the quarantine clearance of horses at Tullamarine Airport. He repeated his warning about the consequences of equine influenza for racehorse owners and breeders.

This letter prompted the Minister to seek a briefing from the department.⁵⁸ In May 2005 Dr Clegg prepared a minute and drafted a reply to Mr Ramsden's letter. The minute sought to distinguish Australian biosecurity measures from the South African ones before the outbreak there:

... the circumstances that led to [the outbreak of equine influenza in South Africa in 2003] could not occur under the current AQIS post-arrival protocol. In the South African case, the outbreak was caused by a lack of quarantine processes including:

- Inadequate vaccination pre-export;
- Lack of isolation from potentially infected horses in pre-export preparation;
- Lack of an all-in-all-out isolation in post-arrival quarantine;
- Early movement of horses (3 days post-arrival);
- Movement of personnel, equipment and vehicles without decontamination; and
- Lack of security, training and documented procedures.

All the recommendations of the report of the investigation into the outbreak (the King Report) are all standard procedures in Australia's post-arrival protocol.⁵⁹

⁵⁶ CORR.0005.002.0229.

⁵⁷ T2769; T2776.

⁵⁸ T3401.

⁵⁹ AQIS.2002.022.0021.

The draft letter⁶⁰, a condensed version of the minute, was signed and sent by the Minister on 31 May 2005.

Notwithstanding the obviousness of the risk that equine influenza presented, the evidence before me shows that between May 2005 and August 2007 there had been no audit, or even recent inspection, by AQIS or Biosecurity Australia officials of overseas places for quarantine of horses before export to Australia; there was no established training regime for AQIS officials attending airports when horses arrived from abroad; and the quarantine stations' documented procedures relative to horses were still not finalised. The failure to attend to the last of these matters contributed to the outbreak of equine influenza in August 2007.

⁶⁰ AQIS.2002.022.0030.

2 The equine influenza virus, recent outbreaks and current strains

2.1 The equine influenza virus

No full understanding of the way that equine influenza might have breached the quarantine barrier and entered the general horse population is possible in the absence of an understanding of the disease itself, the means by which it can be spread, and the measures that can be adopted to control it.

2.1.1 The different sub-types of the virus and the lineage of the H3N8 sub-type

Equine influenza is caused by two sub-types of the influenza A virus—the H7N7 sub-type and the H3N8 sub-type. This classification is based on the antigenic nature of the haemagglutinin (HA) and neuraminidase (NA) glycoproteins, which protrude from the envelope that surrounds the viral nucleic acid. The H7N7 sub-type was first isolated from horses in 1956 in a strain designated A/Eq/Prague/1/56.¹ The H3N8 sub-type was first isolated in 1963 from horses in the United States in a strain known as A/Eq/Miami/1/63.² In recent years the H7N7 sub-type has not been isolated from horses and is believed to be extinct or to be persisting at a very low level in some regions.³

In the course of viral replication, mutations occur in the ribonucleic acid (RNA) sequence in the HA or NA genes. The mutations result in amino acid sequence changes in the HA or NA protein. These slight changes compound during subsequent rounds of viral replication and can cause significant changes in the antigenicity of the progeny virus. The process is called ‘antigenic drift’. The H3N8 sub-type has undergone significant antigenic drift since it was first described, resulting in the evolution of two distinct lineages that have been designated the ‘American-like’ lineage and the ‘European-like’ lineage based on the initial geographical distribution of the viruses.⁴ This geographic distinction has recently become less apparent as a result of the isolation of the

¹ WIT.INQ.001.0015 at para. 22, endnote 41.

² WIT.INQ.001.0015 at para. 22, endnote 44.

³ DAFF.0001.463.0197 at para. 1.1.

⁴ WIT.INQ.001.0015 at para. 22, endnotes 7, 17; DAFF.0001.463.0197 at para. 1.1.

American-like viruses in Europe. The two distinct lineages continue, however, to co-circulate independently.

The Animal Health Trust Laboratory at Newmarket in the United Kingdom, an OIE reference laboratory for equine influenza⁵, has an extensive archive of strains of the virus, which has allowed the laboratory to map globally the occurrence of currently circulating strains of the H3N8 sub-type that have been submitted to it. The mapping shows that, although the American-like and European-like lineages continue to be isolated, a variant American sub-lineage (also referred to as the Florida sub-lineage) has emerged and has recently divided into two groups, or clades. One of these groups (called clade 1) contains the Wisconsin/1/03 and South Africa/4/03 viruses. The other group (clade 2) contains Newmarket/5/03 and other strains that have been circulating in the United Kingdom and Ireland since 2003.⁶

Figure 2.1 shows a phylogenetic tree for the H3N8 sub-type of the virus. The tree is based on an analysis of differences in the amino acid sequences of the HA1 gene of the virus. The variant American sub-lineage is shown in the bottom half of the tree. Clade 1 of that sub-lineage is described as the ‘N.Am isolates’; it includes Sydney/07, Ibaraki/07 and Pennsylvania/07. The viruses in clade 2 are described as the ‘UK isolates’ of the variant American sub-lineage.

For present purposes the main consequence of antigenic drift is that it changes the infecting virus so that antibodies to the vaccine virus are not as effective in preventing disease. The antigenic variability of the H3N8 sub-type has significance for vaccine efficacy.

2.1.2 Animals and species infected by the virus

Equine influenza is a virus infection of horses and other equid species. The virus can, but rarely does, infect species other than horses, donkeys, mules and zebras.⁷ There have been no reports of transmission of the virus to human beings under natural conditions of exposure during an outbreak of equine influenza in horses.⁸

⁵ The role of a reference laboratory is to function as a centre of expertise and standardisation of diagnostic techniques for its designated disease—see EIL.0008.001.0027.

⁶ T4182–T4183 (Newton).

⁷ See, for example, T4192–T4199 (Newton), T4236–T4246, T4263–T4266 (Gilkerson); WIT.REC.001.0001; WIT.REC.002.0001; WIT.INQ.008.0001.

⁸ DAFF.0001.463.0197 at para. 1.2.

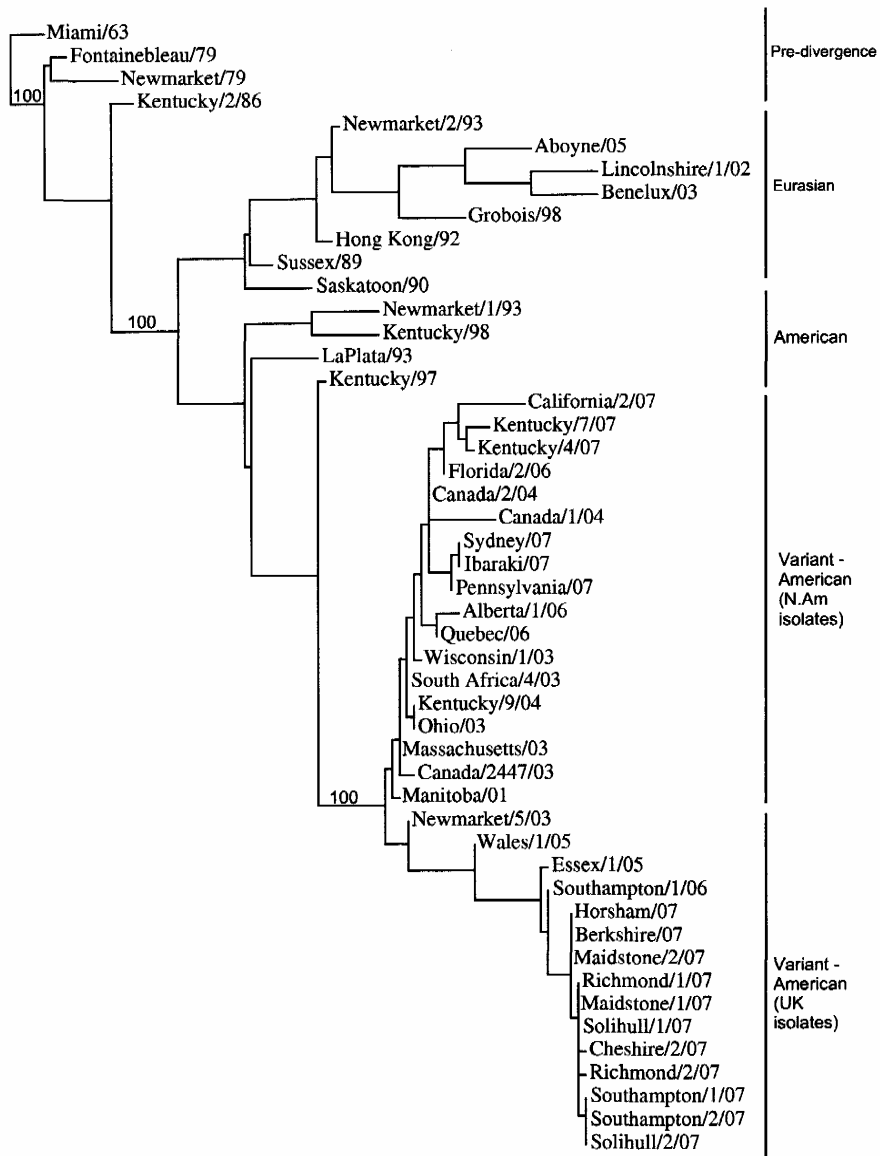


Figure 2.1 Phylogenetic tree of the nucleotide sequence of HA1 from H3N8 sub-type viruses

Note: The tree was generated by the maximum likelihood method using PhyML version 2.4.1 and is rooted on A/Eq/Miami/63. Bootstrap values (from 100 replicates) are shown at critical branch points. Lineages are labelled on the right.

Source: Newton, AHT.0001.001.0080.

Evidence was put before the Inquiry that the virus can also infect dogs. There was, however, no indication in the evidence that the virus could be transmitted from an infected horse to another animal such as a dog and then back to a horse.

I accept the submission of Counsel Assisting that it is unnecessary to explore any potential for the virus to have escaped quarantine by having been carried out of Eastern Creek Quarantine Station by a dog kennelled in the quarantine area or by a detector dog used by AQIS or the Australian Customs Service and kennelled at Eastern Creek. I also reject a suggestion by the veterinarians practising at the Randwick Equine Centre that it was possible that a bird carried the virus from the Eastern Creek Quarantine Station into the general horse population. I make further reference to these matters when discussing how the disease escaped into the general horse population.

2.1.3 The clinical signs of equine influenza

The three most common signs of equine influenza are a deep, dry, hacking cough, onset of pyrexia (an elevated temperature, between 39°C and 41°C) and a watery nasal discharge that can later become mucopurulent. The period of pyrexia commonly occurs four to five days after infection; the coughing can persist for one to three weeks. The mucopurulent nasal discharge is a result of a secondary bacterial infection of the affected respiratory epithelium. Other signs of the disease are depression, loss of appetite, laboured breathing, and muscle pain and stiffness.⁹

Vaccination makes it less likely that horses will develop the disease. If they do, the clinical signs are less severe than they are in an unvaccinated horse. The extent to which it does so depends on the efficacy of the vaccine, which is in part a function of the extent of antigenic drift that has occurred between the virus strains the vaccine contains and the challenge virus. In vaccinated horses the clinical signs just described are variable and can be difficult to discern. In some cases there might be little or no coughing or pyrexia and sub-clinical infection only—that is, infection with no clinical signs at all.¹⁰

With time, the clinical signs of equine influenza become fairly easy to recognise. In the very early stages, however, and before testing, especially with horses that have travelled long distances, an impression can be gained that the illness is travel sickness, which can produce similar but less overt signs.

Among other infectious and non-infectious diseases affecting the upper and lower respiratory tract of horses and causing coughing, with or without fever,

⁹ WIT.INQ.001.0015 at para. 33; DAFF.0001.463.0197 at para. 1.4.1.

¹⁰ DAFF.0001.463.0197 at para. 1.4.1; WIT.INQ.001.0015 at paras 68, 74, 77, 81.

are not only travel sickness (bacterial bronchopneumonia or pleuropneumonia) but also equine viral arteritis, equine rhinovirus or adenovirus infection, and strangles. The similarities can cause confusion in clinical diagnosis. The main differentiating features between those diseases and equine influenza are the latter's rapid spread in unvaccinated horses, the high morbidity rate and the prominence of the deep, hacking cough.¹¹

2.1.4 Long-term effects on horses

Recovery from equine influenza is usually uncomplicated, although coughing can, as noted, persist for up to three weeks. Mortality levels are low, but deaths have been recorded in foals and in older horses debilitated by other disease. Death in adult horses is usually a consequence of secondary bacterial infection leading to pneumonia or pleuropneumonia.¹² The severity of the illness depends very much on the immune status of the infected horse and the virulence of the virus strain.¹³

The virus does not persist in the recovered horse, and there is no evidence of any long-term carrier state after the infective period has ended.¹⁴

2.1.5 Incubation and virus excretion

It is important to detection of the illness to keep in mind that there are three distinct periods—the incubation period, the latent period and the infectious period.

- (a) The incubation period is the time between infection and the appearance of abnormal clinical signs. The OIE Terrestrial Animal Health Code 2006 gives a maximum incubation period of five days.¹⁵ In susceptible horse populations during severe epidemics an incubation period of one to two days has been observed. The incubation period is inversely proportional to the magnitude of the dose of the virus, which explains why the period tends to be shortest during the peak of an epidemic, when many infected horses are shedding large amounts of the virus in nasal discharge or aerosolised droplets. Longer incubation periods are associated with the infective virus requiring several rounds of replication within the horse before causing sufficient pathology for clinical signs to become apparent.

¹¹ DAFF.0001.463.0197 at para. 1.4.4; Geering, Forman & Nunn 1995, *Exotic Diseases of Animals: a field guide for Australian veterinarians*.

¹² WIT.INQ.001.0015 at para. 37; DAFF.0001.463.0197 at para. 1.4.1.

¹³ WIT.INQ.001.0015 at para. 34.

¹⁴ WIT.INQ.001.0015 at para. 37; DAFF.0001.463.0197 at para. 1.6.2.

¹⁵ OIE, Terrestrial Animal Health Code 2006, Article 2.5.5.1.

- (b) The latent period is the time between infection and the start of shedding of the virus. Studies have estimated this period to be between one and four days, with a most likely period of two days.¹⁶ An infected horse can even start shedding before it shows clinical signs of the disease.
- (c) The infectious period is the period during which infected horses shed the virus and are infectious for other animals. The OIE Terrestrial Animal Code 2006 cites a maximum infectious period of 14 days.¹⁷ Studies suggest, however, that in susceptible unvaccinated horses shedding can persist for between seven and 10 days. Most shedding occurs in the early stages of the clinical disease, when coughing is most pronounced. Shedding can occur in partially immune horses showing no or only mild clinical signs.¹⁸

2.1.6 Pathogenesis of the virus

Equine influenza is spread via the respiratory route. The virus is inhaled and infects the upper and lower respiratory tract of a susceptible horse. In order to spread the virus a horse must be shedding. The characteristic harsh cough is an effective method of transmitting the virus for up to 35 metres around the affected horse. There is also evidence that the virus can travel a considerable distance by wind. In the South African outbreak of 1986 it was claimed, anecdotally, that the virus was carried up to 8 kilometres.¹⁹ In fully susceptible groups of horses infection can spread rapidly within the group and between different groups. The latter can occur as a result of the movement of recently infected horses to and from race meetings, studs, agricultural shows, pony clubs, horse sales, and anywhere else that horses mingle.

Contamination can also occur if the virus is present on surfaces in horse transport vehicles or on the equipment, clothing or person of grooms, veterinary surgeons, trainers, farriers and other people who have close contact with horses. Such contamination depends on the survival of the virus on skin, fabrics and equipment and in or on vehicles. Contaminated vehicles represent a major method of spread unless subjected to careful cleaning and disinfection. They were blamed for the rapid spread of the virus in South Africa in 1986 and

¹⁶ Park, Wood, Daily et al. 2004, *The Effects of Strain Heterology on the Epidemiology of Equine Influenza in a Vaccinated Population*.

¹⁷ The 2007 version of the Terrestrial Code provides that, for the purposes of the Terrestrial Code, the infective period is 21 days: OIE Terrestrial Animal Health Code 2007, Article 2.5.5.1.

¹⁸ WIT.INQ.001.0015 at para. 35; DAFF.0001.463.0197 at para. 1.6.1, although generally speaking windborne spread is controversial and requires favourable conditions: T4244 (Gilkerson); WIT.INQ.003.0001 at 0014, 0016–0017.

¹⁹ WIT.INQ.001.0015 at para. 31; DAFF.0001.463.0197 at para. 1.6.3.

2003. Vehicles often carry horses over long distances in an environment conducive to persistence of the virus.²⁰

2.1.7 Survival of the virus

The equine influenza virus has a lipid envelope and does not remain infectious for long outside the horse. It is inactivated by exposure to ultraviolet light for 30 minutes, by heating at 50°C for 30 minutes, and by exposure to sunlight for 15 minutes at 15°C. It can, however, persist in water or soil under dark storage for hours. It does not survive long in high humidity or when exposed to direct sunlight for a lengthy period.²¹

In 35–45 per cent humidity and at a temperature of 28°C the virus has been shown to survive on hard, non-porous surfaces such as stainless steel and plastic for 28 to 48 hours. In the same conditions it has also been shown to survive for less than eight to 12 hours on cloth and paper. Further, studies have shown that the virus can be transferred from stainless steel surfaces to hands and from paper tissues to hands.

The virus can be quickly inactivated by a variety of disinfectants and chemicals. Soaps and detergents are effective because of the lipidity of the virus's envelope. The AUSVETPLAN decontamination manual lists a range of substances that can be used; among them are soaps and detergents, oxidising agents (including Virkon™), alkalis, acids and aldehydes.²²

2.1.8 Diagnosis

Diagnosis of infection with equine influenza is achieved either by detecting the virus in clinical samples or by demonstrating an increase in the amount of antibodies to the virus in the horse's blood. The efficacy of these methods can be measured by the sensitivity and specificity of the test. The sensitivity of a test is the proportion of infected animals that test positive; the test with the highest sensitivity is the one that produces the lowest number of false negatives. The specificity of a test is the proportion of non-infected animals that test negative; the test with the highest specificity is the one that has the lowest number of false positives.²³ If the objective is to rule out the presence of a particular infection in an animal, the surest test to use is the one with the highest sensitivity because that test has the lowest number of false negatives. This is the objective in the testing of imported horses for equine influenza, both

²⁰ DAFF.0001.463.0197 at para. 1.6.3.

²¹ WIT.INQ.001.0015 at paras 30–32; DAFF.0001.463.0197 at para. 1.6.2.

²² WIT.BIOS.004.0001 at para. 35; DAFF.0001.463.0197 at para. 1.6.2.

²³ WIT.BIOS.004.0001 at para. 16.

before they are imported and before they are released into the general population.²⁴

The three surest tests for detecting the presence of antibodies to equine influenza in a horse's blood—the haemagglutination inhibition (HI) test, the single radial haemolysis (SRH) test, and the competitive enzyme-linked immunosorbent assay (C-ELISA) test—must be conducted in a laboratory. The HI and SRH tests use OIE-approved methods. The HI and SRH tests are most commonly used to compare two serum samples taken from the horse. The first sample should be taken as soon as possible after the onset of clinical signs; the second should be taken about two weeks later. The C-ELISA test does not involve a comparison of two samples: it shows whether the sample tested contains antibodies to any influenza A nucleoprotein²⁵, and these antibodies can be present because of the use of an inactivated vaccine or because of active infection.²⁶

The OIE *Manual of Diagnostic Tests and Vaccines for Terrestrial Animals* evaluates the HI and SRH tests as of equal efficacy. Few laboratories in the world use the SRH test, which is more difficult and labour intensive than the HI test.²⁷ The HI test is the serological test currently used in Australia to detect the presence of equine influenza antibodies in a blood sample. It is sensitive and usually highly specific when the right antigen is used.

The virus also can be isolated in embryonated hens' eggs or cell cultures by a laboratory process that can take five to 10 days to complete. Once isolated, the virus can be sequenced to determine its phylogeny.²⁸ Antigenic comparisons of the RNA sequence of the HA gene can then be performed, as happened in relation to the Sydney/07, Ibaraki/07 and Pennsylvania/07 strains.

A number of tests can be used to detect either the virus (by isolating it) or part of the virus. Some of the tests can be done in a laboratory; others, often referred to as 'rapid tests' or 'stallside tests', can be done outside a laboratory. These tests can be useful when a very quick indication of the presence of the disease is required and when screening on a large scale is necessary.

The clinical samples are taken by nasal or nasopharyngeal swabs or by nasal or tracheal washings. The washings are usually taken by endoscopy. In order to maximise the likelihood of diagnosis, clinical samples should be taken as soon as possible after the onset of pyrexia and coughing, as virus shedding might

²⁴ WIT.BIOS.004.0001 at para. 16; T3276–T3277 (Nunn).

²⁵ WIT.INQ.001.0015 at paras 46–52; WIT.BIOS.004.0001 at paras 7–10.

²⁶ T4219 (Gilkerson).

²⁷ WIT.BIOS.004.0001 at paras 8–9.

²⁸ WIT.BIOS.004.0001 at para. 4; OIE *Manual of Diagnostic Tests and Vaccines for Terrestrial Animals 2004*, Ch. 2.5.5; WIT.INQ.001.0015 at para. 41.

have begun before the appearance of clinical signs and might last no more than one to two days.²⁹

The nasal or nasopharyngeal swab is the most common way of taking a clinical sample. A nasal swab is a plastic-handled cotton swab about 15 centimetres long. A nasopharyngeal swab is typically about 50 centimetres long, and taking it involves using autoclavable tubing containing a sterile swab on a soft stainless steel wire guide that is drawn back into the tubing. This procedure is more invasive than performing a nasal swab and can be more stressful for the horse.³⁰ Whether a standard nasal swab or a long nasopharyngeal swab should be used depends on the amount of virus the horse is shedding. In a vaccinated horse the amount is likely to be much smaller than in an acutely infected previously naive horse, in which case a nasopharyngeal swab is more likely to produce a reliable result.³¹

Among the tests used to detect parts of the viral antigen in clinical samples are the real-time polymerase chain reaction test (also referred to as the qPCR test), the antigen-capture ELISA test, and various commercially available immunoassay tests (such as the Espline influenza A&B-N, Directigen Flu A and Directigen Flu EZ, A+B tests) that can give results in 15 to 45 minutes.

The qPCR test uses samples taken by nasal swab and is done in a laboratory. It takes between two and four hours, and the time from receipt of a sample until the availability of the result is between four hours and a day. It is highly sensitive, requiring only a very small amount of viral nucleic acid. It is also highly specific.³² It was used extensively in the recent Australian outbreak. The methodology was developed by the Australian Animal Health Laboratory and then made available to numerous Australian laboratories. A positive qPCR result can be obtained during or after the infectious period.³³

At present no rapid qPCR test is available. New tests for the related avian influenza are, however, being developed. A company in Singapore recently announced it was developing a rapid qPCR test kit that could produce a result within 20 to 30 minutes.³⁴ The financial incentives for the development of tests of illnesses in human beings far exceed those for illnesses of horses.

The antigen-capture ELISA test was developed by the Animal Health Trust at Newmarket in the United Kingdom and has been in use since 1989.³⁵ It is to be

²⁹ WIT.INQ.001.0015 at para. 38; DAFF.0001.463.0197 at para. 1.4.3.

³⁰ DAFF.0001.463.0197 at para. 1.4.3; WIT.BIOS.004.0001 at paras 20–24.

³¹ WIT.BIOS.004.0001 at para. 21; WIT.INQ.001.0015 at para. 40.

³² WIT.BIOS.004.0001 at para. 5.

³³ T3264 (Nunn).

³⁴ T3341–T3342 (Nunn).

³⁵ T4188 (Newton).

distinguished from the C-ELISA test previously referred to: the C-ELISA test is used to detect antibodies in blood serum; in contrast, the antigen-capture ELISA test detects the nucleoprotein of the virus in clinical samples. The test must be done in a laboratory, and the results are available 15 to 45 minutes after the laboratory analysis begins. There are no significant differences between the sensitivity of this test and the qPCR test³⁶: the antigen-capture ELISA test was not used for mass screening during the 2007 outbreak in Australia because the qPCR test was available and was considered more sensitive and specific.³⁷

Commercially available immuno-assay tests to detect influenza A virus are available and can be used outside a laboratory, although the storage and handling of the test kits require favourable temperature and light conditions, and some training and experience may be needed to ensure that the tests are performed properly.³⁸ These include the Directigen and Espline tests. The tests are not OIE approved, and none appears to have been validated for use in horses that have been vaccinated for equine influenza. Studies of the sensitivity of the Directigen test suggest sensitivities of between 33 and 100 per cent. The highest sensitivity was achieved in samples obtained soon after infection of previously naive horses. The sensitivity level decreases for samples taken from previously infected or vaccinated animals that have antibody, which reduces the amount and duration of viral multiplication and shedding.³⁹ Generally speaking, these rapid tests are most likely to detect viral antigen when it is present in large amounts. That will be the case for an infected horse not previously infected or vaccinated against the virus; it is less likely to be the case for a horse that has previously been infected or vaccinated.

The Hong Kong Jockey Club is responsible for the import of horses into Hong Kong. After the outbreak of equine influenza in Hong Kong in 1992 the club adopted a regime of routinely testing all horses on their arrival with a rapid immuno-assay test. Until recently the test used was the Directigen Flu-A test. The club reports that 5942 Directigen Flu-A tests were conducted, all with negative results, while the test was being used; this included tests on 1389 pyrexia cases. Serological screening by the Animal Health Trust in Newmarket of samples from the pyrexia cases confirmed no evidence of equine influenza infection and showed that there were no false negatives in the 1389 cases. The Hong Kong Jockey Club has now taken up the Espline test because of its simpler procedure.

³⁶ T3271 (Nunn).

³⁷ WIT.INQ.001.0015 at para. 44; WIT.BIOS.004.0001 at para. 10, footnote 12.

³⁸ WIT.BIOS.004.0001 at para. 11.

³⁹ WIT.BIOS.004.0001 at paras 14–15, 17.

The evidence before the Inquiry suggested that if a similar testing regime were adopted in Australia the wellbeing of the horses and those handling them would be best served if nasal swabs were taken after the horses arrived at the quarantine station and after some time had elapsed in order to allow them to settle. Restraints would also be available to facilitate the taking of samples from even the most difficult horse. Among the restraints would be hand-held devices (for example, twitches) and the much larger padded crush, which, as the name suggests, is used to restrain a horse so that it can be examined. At present there are no such restraining devices at either Sydney (Kingsford Smith) Airport or Melbourne's Tullamarine Airport. I am inclined to think these facilities should be available at the airports for use in emergencies and other special situations, even if they are not used routinely.

2.1.9 Vaccination

The aim of vaccination is to prevent disease, but very few vaccines assuredly do so. Most reduce the disease's severity by stimulating sufficient immunity to enable the vaccine recipient to mount an effective immune response quickly after infection. The primary aim of vaccination here is to reduce the severity of the clinical signs of the disease and the amount of shedding, with consequential improvements in animal welfare by reason of shorter periods of convalescence and a lower rate of spread of infection to other horses.

Equine influenza vaccines were first developed in the 1960s in response to outbreaks in the United States in that decade. Historically, vaccination against H7N7 strains was quite successful in controlling the virus. Since the emergence of the H3N8 strains the level of protection has varied as a result of the higher rate of antigenic drift. Immunity from equine influenza is short-lived, both after vaccination and after natural infection.⁴⁰

The effectiveness of a vaccine is determined by the level of detectable antibody produced in the exposed horse and the extent of antigenic drift that has occurred between the challenge virus and the strains of the virus in the vaccine. The level of detectable antibody produced is associated with the vaccine's potency and the time that has elapsed since the last vaccination. Until recently, equine influenza vaccines consisted of killed or inactivated whole viruses or their sub-units, with or without an adjuvant (which is used to stimulate levels of antibody). More recently, however, live attenuated vaccines have become available in some countries, but none of them has been approved for use in Australia yet.⁴¹

⁴⁰ WIT.INQ.001.0015 at para. 67.

⁴¹ T3265 (Nunn).

There have been several studies of the efficacy of various commercial vaccines against different virus strains, particularly after it was demonstrated that the H3N8 sub-type had diverged into two distinct lineages. The 2003 outbreak in South Africa and the 2007 Australian outbreak were caused by viruses in the Florida sub-lineage of the American lineage. Challenge trials have found that some currently available inactivated vaccines may offer short-term protection against these viruses.⁴²

The Animal Health Trust Laboratory is coordinating a surveillance program by the OIE and WHO reference laboratories with the aim of obtaining information on suitable vaccine strains. The surveillance panel has recommended that the H7N7 sub-type be omitted from current vaccines because no reports of infection with this sub-type have been substantiated in the past 20 years. The panel has also recommended that vaccines include representatives of both the American-like and the European-like lineages.

Notwithstanding these recommendations, many commercially available vaccines still contain H7N7 virus strains and less-than-optimal representatives of the currently circulating H3N8 viruses.⁴³ The fact that there is no perfect vaccine makes the specification of particular vaccines difficult. It does not, however, stand in the way of a requirement that vaccines containing H7N7 virus strains or that are otherwise considered ineffective be avoided; nor does it justify an abstention from continually reviewing the available catalogue and recommending the best vaccine at the time.

2.2 Recent outbreaks of equine influenza and currently circulating strains

Before August 2007 it is probable that only Australia, New Zealand and a few other island nations such as Iceland and some Pacific countries had never experienced equine influenza. In the past 20 or so years six countries that had not previously been exposed to the virus suffered major outbreaks—South Africa (1986), India (1987), Hong Kong (1992), Dubai (1995), the Philippines (1997) and, most recently, Australia (2007). Of these countries, South Africa (2003) was the only one in which the disease recurred as a significant outbreak.⁴⁴

⁴² WIT.INQ.001.0015 at para. 75.

⁴³ WIT.INQ.001.0015 at para. 75; OIE *Manual of Diagnostic Tests and Vaccines for Terrestrial Animals 2004*, Ch. 2.5.5.

⁴⁴ DAFF.0001.051.3163 at 3186–3188.

Each of the outbreaks was associated with the importation by air of sub-clinically infected horses and inadequate post-arrival quarantine procedures. The material supporting that observation—other than in relation to the outbreaks in Dubai and the Philippines—is summarised in the sections that follow. Statements in the published literature suggest that the same factors contributed to the outbreaks in Dubai and the Philippines.⁴⁵

The circumstances of these earlier outbreaks should have stood as a warning that an outbreak of the kind that occurred in Australia was ‘on the cards’ if strict biosecurity were not maintained. There were in all of the occurrences lessons that AQIS and Biosecurity Australia should have learnt. But instead, both of these organisations remained over-confident in the opinion that either pre-export or post-arrival quarantine (or both) would bar any outbreak in this country.

2.2.1 Outbreaks

South Africa, 1986

The 1986 outbreak in South Africa originated with horses that were imported from the United States and were infected with the virus at the time of their arrival at the post-arrival quarantine station at Johannesburg International Airport. A number of possible scenarios were advanced to explain the outbreak. Two recently vaccinated horses that had arrived from England were released from the quarantine station three days after the US horses arrived. In the meantime, the two groups of horses had mingled: the quarantine station did not have an ‘all in, all out’ policy. The float that carried the two horses from the quarantine station also loaded horses from Turffontein Racecourse, as well as other thoroughbreds, and carried them to major studs and a training complex without taking any proper biosecurity precautions. Furthermore, a private veterinarian treated the infected horses in quarantine and subsequently treated horses at a local racetrack without taking adequate biosecurity precautions.⁴⁶

South Africa, 2003

The South African outbreak of 2003 was the subject of an inquiry by a board of inquiry comprising a retired judge, Edwin King, and Dr Duncan McDonald, a senior veterinarian. Their report identified the source of the outbreak as a group of horses imported by air into South Africa from the United States and other places, including the United Kingdom. They concluded that the virus was most

⁴⁵ EII.0006.003.0175 at 0176–0177.

⁴⁶ WIT.INQ.001.0015 at para. 25; DAFF.0001.067.0170 at 0188; DAFF.0001.051.3163 at 3187–88; EII.0006.003.0107.

probably transmitted from the quarantined horses to South African horses by indirect means, on people, vehicles or equipment.

Two possible means or causes of transmission—which resonate with some of the deficiencies leading to the outbreak in Australia—were identified. The first was one of the vehicles used to transport the imported horses to the quarantine station. The second was inadequate security surveillance at the quarantine station, the absence of any clear standard operating procedures, and the fact that private veterinarians had unlimited access to the horses and were not briefed on biosecurity measures. In addition, it was considered that some of the imported horses could have been inadequately vaccinated because epidemiologically relevant strains were not included in the vaccines.⁴⁷

India, 1987

Equine influenza was introduced into the northern states of India in January 1987 by horses imported by air from France. The outbreak is reported to have been the result of a failure to identify horses incubating the disease before shipping and inadequate quarantine at the port of entry.⁴⁸

Hong Kong, 1992

The outbreak in Hong Kong in November 1992 was associated again with the air importation in October of infected horses from the United Kingdom and the Republic of Ireland. The horses were not subject to government post-arrival quarantine but were instead kept by the Royal Hong Kong Jockey Club for 14 days in stables immediately adjacent to the main stable complex. Grooms caring for the horses in ‘quarantine’ also cared for other horses in the stables, without paying strict attention to decontamination procedures. At the time the ‘all in, all out’ rule was not practised, and one group of horses was released before the remaining horses had finished their quarantine.⁴⁹

2.2.2 Currently circulating strains

In contrast with the position in Australia and Japan, equine influenza is not a notifiable disease in the United Kingdom, Ireland or the United States.⁵⁰ If outbreaks do occur, those countries are, however, required, as members of the OIE, to provide notification of them. Despite the fact that equine influenza is not a notifiable disease, there are laboratories that do their own analyses and receive and record the results of other analyses of samples of the virus. In

⁴⁷ DAFF.1000.011.0047; WIT.INQ.001.0015 at para. 26.

⁴⁸ DAFF.0001.067.0170 at 0188–0189.

⁴⁹ DAFF.0001.067.0170 at 0189–0191; WIT.INQ.001.0015 at para. 27.

⁵⁰ T2920 (Martin).

Ireland the laboratory is at the Irish Equine Centre in County Kildare; in the United States the laboratory is the Gluck Equine Research Center at the University of Kentucky; in the United Kingdom the laboratory is at Newmarket, at the Animal Health Trust, which I visited in November 2007 and at which I interviewed Dr Richard Newton.

Each year, in its role as an OIE reference laboratory, the Animal Health Trust prepares a report on outbreaks of equine influenza in the United Kingdom and the rest of the world and provides it to the OIE's Expert Surveillance Panel. The summaries that follow draw extensively on the report for 2007.⁵¹

The United Kingdom, 2007

A number of minor outbreaks of equine influenza were reported in the United Kingdom in 2007, among them outbreaks at Horsham, Stoke-on-Trent, Solihull, Maidstone, Southampton, Strathaven, Lincolnshire, Cheshire, Berkshire and Lambourn. With one exception, all viruses detected were members of clade 2 of the H3N8 variant American sub-lineage and similar to the Newmarket/5/03 strain. The exception was a strain isolated in Lincolnshire, in a horse that displayed clinical signs and had been imported from Spain in August 2007. That strain (Lincolnshire/07) is similar to the clade 2 Wisconsin/1/03 and South Africa/4/03 strains.

Two of the six consignments into Eastern Creek between 3 and 8 August 2007—the consignments arriving on 4 and 7 August—included horses from the United Kingdom. The 22 horses concerned had undergone pre-export quarantine at three premises, the National and Dalham Studs in Suffolk and the Nunnery Stud in Norfolk. There is no evidence of outbreaks among horses held at these premises in 2007.

Ireland, 2007

Responses to inquiries of the Irish Equine Centre were that the strains circulating in Ireland in 2007 were of the variant American lineage but not from the Wisconsin/1/03 sub-group. The strains identified included Laois/07, Donnegal/07, Meath/07, Carlow/1/07, Carlow/2/07 and Kildare/07. The Animal Health Trust's *Influenza Surveillance Report* for 2007 states that four outbreaks in the United Kingdom could be traced to horses recently imported from County Kilkenny in the Republic of Ireland. Analysis of those virus strains showed that they were of the variant American sub-lineage similar to the Newmarket/5/03 strain.

⁵¹ AHT.0001.001.0064.

Two of the consignments into Eastern Creek included horses from Ireland: six Irish horses were in the first of the three consignments that arrived on 7 August and 12 were in the third of those consignments. The horses in those consignments had undergone PEQ in five different places—the Kildangan and National Studs in County Kildare and Fairy King Farm, Prospect Farm and Greentree Stud in County Tipperary. Inquiries of the Irish Department of Agriculture disclosed that there were no reported instances of equine influenza at any of those facilities in 2007.

The United States, 2007

Inquiries of the Gluck Equine Research Center, which is an OIE reference laboratory, revealed that in 2007 equine influenza viruses were reported as circulating in Florida, Kentucky, Pennsylvania and California. These are, however, likely to represent only a relatively small number of the cases of equine influenza occurring in the United States, because, although the disease is endemic there, it is not compulsorily reportable in any state. All the strains that were reported as circulating were members of clade 1 of the variant American sub-lineage descended from the Wisconsin/03 strain. One of those strains is Pennsylvania/07, which is almost identical to Sydney/07 and Ibaraki/07 in its HA1 amino acid sequence alignment.

Two of the six consignments into Eastern Creek between 3 and 8 August consisted in total of eight horses from the United States. Three of the horses had undergone PEQ at the premises of EquiAir in Canyon County, California, and five of the horses had undergone PEQ on Jonabell Farm at Lexington, Kentucky. In response to inquiries made by the Australian Embassy in Washington, the US Department of Agriculture advised that no cases of equine influenza were identified at the Canyon County premises or nearby locations during or after the PEQ period and that on Jonabell Farm there had not been any cases of equine influenza for several years. Inquiries of the Kentucky State Veterinarian's Office similarly indicated that there had been no reports of equine influenza in the area surrounding that farm.⁵²

Japan, 2007

The first outbreak of equine influenza in Japan in 2007 was detected in a racehorse at the Miho Training Centre on Honshu, the main island of Japan.⁵³ That virus was later isolated and analysed, and is described as Ibaraki/07. Other outbreaks occurred on the island of Hokkaido, the earliest reported case being

⁵² DAFF.0001.459.0545 at 0547; DAFF.0001.459.0549_R at 0555_R; CORR.0005.004.0062; CORR.0005.004.0064.

⁵³ As noted in Section 1.3, the first outbreak in Japan was at a farm in Kitakyushu City, Fukuoka, on 12 August 2007.

on 14 August at the town of Urakawa. Analysis of the HA1 amino acid sequence alignment in the Sydney/07 and Ibaraki/07 viruses establishes that the viruses are almost identical. These results are consistent with a close relationship between Sydney/07 and Ibaraki/07, which were isolated within a very short period, so that accumulated sequence changes did not have time to develop.⁵⁴

The 13 horses in the consignment from Japan on 8 August—nine of which went to Spotswood and four of which went to Eastern Creek—had undergone quarantine at five different PEQ stations on Hokkaido—East Stud in Urakawa, the Shaddai Stallion Station between the towns of Abira and Atsuma, the Breeders' Stallion Station at Hidaka, the Japan Bloodhorse Breeders Association at Shinhidaka, and Northern Farm at Chitose. In August or early September outbreaks of equine influenza were reported in each of these areas except Chitose.

2.2.3 Outbreaks in Kazakhstan, China and Mongolia, 2007

The Central Asian republic of Kazakhstan notified the OIE of a suspected outbreak of equine influenza among 300 horses on 26 August 2007. China and Mongolia notified outbreaks on 5 and 14 November 2007 respectively. By January 2008 the outbreak in Mongolia was affecting more than 60 000 horses in 11 provinces. The Chinese outbreak was in the northern province of Xinjiang, which adjoins Western Mongolia.

⁵⁴ AHT.0001.001.0001 at 0020–0023.

3 International obligations, the Quarantine Act and administrative structures

3.1 Australia's international obligations and quarantine policy

3.1.1 Membership of the World Trade Organization

Australia is a party to the World Trade Organization agreements that were signed as a result of the 1986 to 1994 Uruguay Round of trade negotiations. One of the main agreements is the one establishing the WTO. Attached to it are a number of other agreements, one of which is the Agreement on the Application of Sanitary and Phytosanitary Measures (referred to as the SPS Agreement). The SPS Agreement is concerned with food safety and the regulation of animal and plant health. It recognises that governments have the right to take sanitary and phytosanitary measures but that such measures should be applied only to the extent necessary to protect human, animal or plant life or health and should not arbitrarily or unjustifiably discriminate between members of the WTO where identical or similar conditions prevail.

Members of the WTO are obliged to ensure that as far as possible their quarantine measures conform to international standards, guidelines and recommendations and are based on an assessment of the risk to human, animal and plant life or health, 'taking into account' risk assessment techniques developed by relevant international organisations. The SPS Agreement spells out procedures and criteria for assessing risk and determining appropriate levels of health protection. Self-evidently and inevitably, different countries are variably susceptible economically and socially to different risks.

Article 5 of the SPS Agreement requires member countries to ensure that sanitary measures are based on an assessment of risks that take into account techniques developed by relevant international organisations and the available scientific evidence. The agreement identifies, among other organisations, the World Organisation for Animal Health (generally known as the OIE¹) as one of the international organisations developing international standards, guidelines

¹ It was formerly known as the Office International des Epizooties.

and recommendations that should be used in order to achieve harmonised sanitary and phytosanitary measures between member countries. By Article 3.4, members agree to play a full part in the OIE so as to promote within that organisation the development and periodic review of standards, guidelines and recommendations with respect to aspects of health measures.

3.1.2 Membership of the OIE

The OIE is an intergovernmental organisation formed in 1924. It currently has 172 member countries, among them Australia. Under the authority and control of an International Committee consisting of delegates from member countries' governments, it implements resolutions passed by the International Committee. The resolutions are developed with the support of various commissions elected by the delegates. In turn, the commissions include specialist technical commissions that examine and make decisions about reports from various working groups and ad hoc groups.

The Terrestrial Animal Health Standards Commission is responsible for ensuring that the recommendations of the Terrestrial Animal Health Code reflect current scientific information on the protection of international trade and surveillance methods for animal diseases and zoonoses (diseases that are naturally transmissible from animals to humans). The code contains a list of diseases, the occurrence of which in a member country must be notified to the OIE by the relevant government authority, which is referred to in the code as the 'Veterinary Authority'. Equine influenza is one such disease.²

The code describes certification procedures, risk analyses and import and export procedures, including animal health measures applicable before departure, on departure, and during transit. It also makes recommendations in relation to requirements or conditions that should be imposed to deal with specific diseases, among them equine influenza. In this regard, the code makes recommendations as to the content of international veterinary certificates for horses and for certifications with respect to the international movement of competition horses.³ It also contains model international veterinary certificates for horses and for the international movement of competition horses.⁴

The Biological Standards Commission within the OIE is responsible for establishing or approving methods of diagnosing diseases of animals, birds and bees and for recommending the effective biological protective measures, such as vaccines. It oversees publication of the *Manual of Diagnostic Tests and*

² Terrestrial Animal Health Code (2007), part 2, section 2.1, chapter 2.1.1, article 2.1.1.3.

³ Terrestrial Animal Health Code (2007), part 2, section 2.5, chapter 2.5.5, articles 2.5.5.5 to 2.5.5.7.

⁴ Terrestrial Animal Health Code (2007), part 4, section 4.1, appendixes 4.1.4, 4.1.5.

Vaccines for Terrestrial Animals, which the SPS Agreement recognises as an international standard text.

The main part of the manual contains a chapter on each disease listed in the Terrestrial Animal Health Code. Each chapter provides a general introduction to the disease in question, a summary of the diagnostic techniques for identifying it, and a summary of requirements for vaccines and diagnostic biologicals for the disease. Chapter 5.5 of the manual deals with equine influenza.

The Biological Standards Commission also nominates reference laboratories for various animal diseases. The laboratories function as centres of expertise and work to standardise diagnostic techniques for their designated disease. The OIE has a global network of about 170 reference laboratories, with 146 experts covering 93 designated spheres of competence or diseases in 30 countries. There are four designated OIE reference laboratories for equine influenza:

- (a) the Animal Health Trust, Newmarket, Suffolk, United Kingdom
- (b) the Cambridge Infectious Diseases Consortium, Department of Veterinary Medicine, Cambridge, United Kingdom
- (c) the Institute for Medical Microbiology, Infectious and Epidemic Diseases, Veterinary Faculty, Ludwig-Maximilians-University, Veterinarstrasse, Munich, Germany
- (d) the Maxwell H Gluck Equine Research Center, Department of Veterinary Science, University of Kentucky, Lexington, Kentucky, United States.

3.1.3 Quarantine policy

Australia's quarantine policy is intended to give effect to obligations assumed under the World Trade Organization agreements and by virtue of its membership of the OIE. Successive Australian governments have taken 'a conservative, but not a zero-risk, approach to the management of biosecurity risks'. It is described in the Department of Agriculture, Fisheries and Forestry *Import Risk Analysis Handbook 2007*⁵ in these terms:

The objective of Australia's biosecurity policy and risk management measures is the prevention or control of the entry, establishment or spread of pests or diseases that could cause significant harm to people, animals, plants and other aspects of the environment. Australia has diverse native flora and fauna and a large agricultural sector, and is relatively free from the more significant pests and diseases present in other countries. Therefore, successive Australian governments have maintained a conservative, but not a

⁵ AQIS.2001.002.0580.

zero-risk, approach to the management of biosecurity risks. This approach is consistent with the World Trade Organisation's (WTO's) Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement). Annex A of the SPS Agreement defines the concept of an 'appropriate level of protection' (ALOP) as the level of protection deemed appropriate by a WTO member establishing a sanitary or phytosanitary measure to protect human, animal or plant life or health within its territory. Among a number of obligations, a WTO member should take into account the object of minimising negative trade effects in setting its ALOP. Like many other countries, Australia expresses its ALOP in qualitative terms. Our ALOP, which reflects community expectations through Australian government policy, is currently expressed as providing a high level of sanitary and phytosanitary protection, aimed at reducing risk to a very low level, but not to zero.

The fact that Australia maintains this conservative but not zero-risk approach to biosecurity was emphasised in a recommendation of the Australian Quarantine Review (the Nairn Review):

the continued perception in some quarters that there ever has been or ever can be a 'no risk' quarantine policy for any country—let alone a major agricultural trading nation such as Australia, reflects a fundamental misconception that needs to be corrected in an ongoing awareness campaign.⁶

The Australian Government's response to the Nairn Review noted that 'no quarantine service can totally eliminate the risk that pests and diseases will enter the country' and that 'there will always be an element of risk' with imports.⁷ It also emphasised that established government policy was that quarantine is a 'shared responsibility' between governments (Commonwealth and state and territory), importers, the relevant industries and the wider community.⁸

I endorse a policy of shared responsibility, but I fear that the policy here has been distorted by a tendency on the part of AQIS to stand aloof from close supervision, to allow some of its day-to-day functions to be performed by importers and those caring for horses in quarantine, without any clear specification of their responsibilities and obligations, leaving it to them to decide how they should manage aspects of the reception of horses at airports and the horses' accommodation and monitoring at the quarantine stations. Education of, consultation with, and solicitation of cooperation from importers, transporters and people caring for the horses are not only desirable but also

⁶ Nairn ME, Allen PG, Inglis AR & Tanner C 1996, *Australian Quarantine—a shared responsibility*, Department of Primary Industries and Energy, Canberra, p. 93.

⁷ Department of Primary Industries and Energy 1997, *Australian Quarantine—a shared responsibility: the government response*, DPIE, Canberra, pp. 4, 10.

⁸ Department of Primary Industries and Energy 1997, *Australian Quarantine—a shared responsibility: the government response*, DPIE, Canberra, pp. 8, 9, 12.

necessary. None of those matters, however, can be a substitute for rigorous adherence to the statutory, regulatory and policing roles of AQIS and scientific leadership by Biosecurity Australia.

The Quarantine and Exports Advisory Council, a non-statutory advisory body established as part of the government response to the Nairn Review, suggests that as part of the concept of ‘shared responsibility’ private veterinarians are and should be ‘treated as partners in the process’.⁹ I accept that everyone involved in the importation of horses has responsibilities and duties. AQIS is entitled to expect that the private veterinarians, particularly because they are professionals and in most cases equine specialists, would take precautions to ensure biosecurity. I am concerned, however, that in devolving so much responsibility and in relying on others, as it has, AQIS has not itself accepted the responsibility it owes to the community as a regulator and policing agency for imports and quarantine. Private veterinarians do not have the statutory powers and duties AQIS officials have. They do not have a share in the management of quarantine stations. To treat anybody, either private veterinarians or import agents, as partners or more, which I think there has been a tendency on the part of AQIS to do, is to go too far.

3.2 The Quarantine Act

The Commonwealth laws governing the importation of live animals into Australia and their treatment before they are released into the general animal population are the *Quarantine Act 1908* and subordinate legislation, including the Quarantine Regulations 2000 and the Quarantine Proclamation 1998.

Before 1 July 1909, when the Act came into effect, the states had enacted uniform quarantine legislation. On the passing of the Commonwealth legislation, the states continued to provide operational services for quarantine under formal agency arrangements with the Commonwealth. The services were provided under agreements between the Commonwealth and the various states and territories. Under the arrangements quarantine services were to be provided having regard to various manuals and memoranda issued from time to time by the relevant Commonwealth department. In addition, the Commonwealth was to provide guidelines and operating procedures to be followed in the performance of quarantine services.¹⁰

By 1994 a number of post-entry plant quarantine operations were performed by state or territory employees, whereas the animal quarantine stations were

⁹ SUBS.QEAC.002.0001 at 0003.

¹⁰ See, for example, DAFF.INQ.015.0168; DAFF.INQ.015.0087.

staffed by Commonwealth officers with state veterinary and some administrative support.¹¹ Since 1995 the function of quarantine has been progressively transferred from the states (with the exception of Tasmania) and territories to the Commonwealth.¹²

To the extent that it deals with animal, plant and general quarantine, the *Quarantine Act 1908* is administered by the Minister for Agriculture, Fisheries and Forestry. The relevant department is the Department of Agriculture, Fisheries and Forestry, which is concerned with agricultural and pastoral industries and affairs and quarantine.

Under the Act, the Secretary of the department is the Director of Animal and Plant Quarantine.¹³ The director, under the Minister, is charged with execution of the Quarantine Act and any regulations and proclamations in force under it in relation to animal and plant quarantine. The Minister may appoint chief quarantine officers (animals) and chief quarantine officers (plants)¹⁴; the director may appoint quarantine officers (animals) and quarantine officers (plants).¹⁵ These officers are given various powers. In addition to Commonwealth employees, employees of a state or territory also may be appointed quarantine officers.

The Act provides for delegation of powers. The Minister may delegate powers to the Secretary of the department, to a Director of Quarantine (which expression includes the Director of Human Quarantine) or to a quarantine officer; the Secretary may delegate his or her powers to a Director of Quarantine or to a quarantine officer, and a director may delegate powers to a quarantine officer.¹⁶

3.2.1 Importation of live animals

Importation of a live animal into Australia is prohibited if a Director of Quarantine has not granted a permit to import the animal.¹⁷ A permit may be granted subject to compliance with conditions or requirements either before or after the importation of the animal.¹⁸ Further, a permit may be granted to cover

¹¹ DAFF.0001.877.0016 at 0018.

¹² Nairn ME, Allen PG, Inglis AR & Tanner C 1996, *Australian Quarantine—a shared responsibility*, Department of Primary Industries and Energy, Canberra, p. 25.

¹³ Section 9AA(1).

¹⁴ Section 9AA(2).

¹⁵ Section 9AA(3).

¹⁶ Sections, 10, 10A, 10B.

¹⁷ Quarantine Proclamation 1998, s 37(2); ss 5(1), 13(1)(f), 13(2A) of the Act.

¹⁸ Section 13(2B) of the Act.

a single importation or multiple importations and multiple goods.¹⁹ An application for a permit must be in writing in a form approved by a Director of Quarantine.²⁰ A Director of Quarantine or his or her authorised delegate²¹ may grant a permit.

In deciding whether to grant a permit, a director or his or her delegate must consider the ‘level of quarantine risk’ if a permit were to be granted and whether, if it is, the imposition of conditions necessary to limit the level of quarantine risk to one that is ‘acceptably low’.²² ‘Level of quarantine risk’ refers to the probability of a disease or pest being introduced, established or spread in Australia, causing harm to human beings, animals, plants or other aspects of the environment or economic activities, and the probable extent of such harm.²³ If a permit is granted, a Director of Quarantine must allocate and mark an identifying number on the permit and inform the applicant for it of the number.²⁴

3.2.2 Airports where horses may be landed

Except in circumstances that are the subject of a written permission from a Director of Quarantine, imported animals must be landed at a generally or specifically designated airport.²⁵ Among the airports where imported animals generally may be landed are Sydney (Kingsford Smith) Airport, Tullamarine Airport in Victoria, and the airports at Brisbane, Adelaide, Perth and Hobart. At present there are no airports specifically designated for the landing of imported horses.²⁶

3.2.3 Appointed quarantine stations

The places appointed under the Quarantine Act as quarantine stations for horses are Eastern Creek Quarantine Station in New South Wales and Spotswood Quarantine Station and Sandown Racecourse in Victoria.²⁷ Other places are appointed stations for the quarantining of animals or plants, but none currently accepts horses. In practice, this means that horses—certainly those imported from countries other than New Zealand—tend to be disembarked at either Sydney (Kingsford Smith) Airport or Tullamarine Airport.

¹⁹ Section 13(2AA).

²⁰ Regulation 70, Quarantine Regulations 2000.

²¹ Sections 13(2AA) and s 10B of the Act.

²² Section 70, Quarantine Proclamation 1998.

²³ Section 5D of the Act.

²⁴ Regulation 71, Quarantine Regulations 2000.

²⁵ Section 20D of the Act.

²⁶ Proclamation, ss 10, 11; Act, s 13(1)(b).

²⁷ Proclamation, s. 14 and Part 1, Schedule 1; s. 13(1)(c) of the Act.

3.2.4 Quarantine measures and powers

The Act defines ‘quarantine’ in relation to animals as including measures for examination, exclusion, detention, observation, segregation, isolation, protection, treatment or seizure and destruction that have as their object the prevention or control of the introduction, establishment or spread of diseases or pests that will or could cause significant damage, including to animals or economic activities.²⁸

Goods ‘subject to quarantine’ includes animals on board an aircraft that has arrived from a place outside Australia²⁹, animals infected with a quarantineable disease³⁰, animals that have been in contact with or exposed to infection from a quarantineable disease³¹, and animals that have been ‘ordered into quarantine’ by a quarantine officer.³² Vessels (which includes aircraft), installations, individuals, goods (which includes animals) and plants that become ‘subject to quarantine’ continue to be so subject until they are ‘released from quarantine’.³³

Animals may be ‘ordered into quarantine’ if, in the opinion of a quarantine officer, they are or are likely to be infected with a quarantineable disease.³⁴ On their arrival in Australia imported animals that are not released from quarantine must be ordered into quarantine unless an authorised quarantine officer, following an inspection, allows the imported animal to be delivered to the importer because there is no reason to suspect that the animal is suffering from any disease or is a source of infection.³⁵ Animals that have been imported into Australia but have not been released from quarantine may, by electronic notice, be ordered into quarantine if there are reasonable grounds to believe there is an unacceptably high level of quarantine risk in respect of them.³⁶

Once an animal has been ordered into quarantine, a quarantine officer may direct that it be detained or taken to and detained at a quarantine station or other place for such period as the quarantine officer determines.³⁷ The officer may give directions in relation to the extent to which the animal may be moved, dealt with or interfered with; the officer may also give directions to the

²⁸ Section 4(1).

²⁹ Section 18(2)(a)(i).

³⁰ Section 18(2)(b).

³¹ Section 18(2)(c).

³² Section 18(2)(f).

³³ Section 19A(1).

³⁴ Section 35(1AAA).

³⁵ Sections 52(1), 52(2), 52(4).

³⁶ Section 56.

³⁷ Section 48(1).

importer or owner of the animal or the person who is in control of it.³⁸ Additionally, a quarantine officer may give directions as to any treatment that should be provided in respect of any airstall, equipment or vehicle that might have been exposed to the animal at a time when it was subject to quarantine.³⁹ Similar directions may be made with respect to the treatment, destruction or disposal of packaging material and waste material associated with the carriage of the animal.⁴⁰

Quarantine officers have various substantial powers in relation to animals that are or have been, or are believed on reasonable grounds to be or to have been, subject to quarantine. Among those powers is the power to permit a person to move, deal or interfere with the animal with or without conditions⁴¹ and the power to require that questions be answered, documents be produced or samples be provided.⁴² The quarantine officer in charge of a quarantine station may give directions to a person in the quarantine station to leave or to subject himself or herself to such treatment as is required by the direction.⁴³ A person who enters or leaves a quarantine station or quarantine area or takes an animal, plant or other goods into or out of a quarantine station or area without the written permission of a quarantine officer commits an offence.⁴⁴ A quarantine officer may give specified people or classes of people written permission to do relevant acts, and those permissions may or may not be subject to conditions. If a person enters or leaves a quarantine station, takes an animal, plant or other goods into or out of the station, or interferes with any animal, plant or other goods subject to quarantine in contravention of any such condition and that person is reckless as to whether or not the condition is contravened, the person also commits an offence.⁴⁵

3.2.5 Compliance agreements

A Director of Quarantine may enter into a compliance agreement with a person in association with the application of particular procedures in respect of goods and the supervision, monitoring and testing of that person's compliance with those procedures.⁴⁶ A compliance agreement must describe the records to be

³⁸ See, for example, s. 48AB(1)–(2).

³⁹ Section 48AB.

⁴⁰ Section 48AD.

⁴¹ Section 44B(6).

⁴² Sections 70A, 70B.

⁴³ Section 70E.

⁴⁴ Section 76(1)–(2).

⁴⁵ Sections 76(3), 76(4).

⁴⁶ Section 66B.

created and kept of the procedures that are the subject of the agreement and the means by which those procedures are to be supervised, monitored and tested.⁴⁷

3.2.6 Recovery of quarantine expenses

The importer and owner of any animal subject to quarantine are liable to the Commonwealth for expenses connected with examination of the animal, its transportation, detention, maintenance, treatment and movement, and its removal, disposal or destruction under a power conferred or an order or direction given under the Quarantine Act.⁴⁸ Those expenses are recoverable as a debt due to the Commonwealth.⁴⁹ The Act provides that the Minister may by notice published in the *Gazette* make determinations of fees to be paid in association with the management and maintenance of animals at a quarantine station.⁵⁰ The current determination in relation to fees to be charged for services provided in association with quarantine stations is in item 30 of the Quarantine Service Fees Determinations 2001.

I am not satisfied that the fees currently payable for services provided meet all the costs associated with the importation and quarantining of horses, especially shuttle stallions. I discuss this in detail in Chapter 14.

3.2.7 The need for review of the Quarantine Act

The procedures currently adopted by AQIS for the clearance and quarantine of horses are contained in the Standard Operating Procedure for Clearance and Quarantine of Live Horses, issued on 5 December 2007.⁵¹ An examination of those procedures and the provisions of the *Quarantine Act 1908* suggests that the Act should be reviewed to ensure that it clearly and adequately addresses the measures that should be taken and the powers that should exist with respect to the importation of horses. One matter, in particular, needs to be dealt with.

On the arrival of an aircraft at an Australian airport, AQIS officers currently direct that the airstalls containing the horses be moved to a permanent or temporary transfer facility at the airport. The AQIS operating procedures describe that area as a 'Controlled Area'. That expression does not appear in the Act and no powers or functions are described by reference to such an area. Directions are, however, made in relation to the horses, people and equipment in that area. The provisions of the Act relied on to establish and control that

⁴⁷ Regulation 72, Quarantine Regulations 2000.

⁴⁸ Section 64(1).

⁴⁹ Section 66.

⁵⁰ Section 86E(1B).

⁵¹ DAFF.0001.780.0003.

area are contained in s. 44B, which depends on the horses being ‘subject to quarantine’⁵², notwithstanding that in the sequence of events proposed by the operating procedures the horses are not ordered into quarantine until after the area has been established and the horses have been moved into it. At that time powers under s. 44B might already have been purportedly exercised.⁵³ The power currently relied on to give directions at the airport as to the treatment of animals or things exposed to the horses is limited to directions to the importer or a person who is in control of the horses.⁵⁴ That power may enable directions to be made or given to the range of persons who might be present at the airport.

In these circumstances, the following require particular attention:

- (a) whether animals that are imported subject to a condition that they spend some time in post-arrival quarantine should have to be ‘ordered into quarantine’ or whether they should automatically be given that status on their arrival into Australia
- (b) whether there should be a specific power to establish a controlled area at an airport with general powers of direction with respect to that area and animals, persons and things in it
- (c) whether quarantine officers have all of the other powers they need to ensure that adequate biosecurity measures are followed—particularly at the airport where horses are landed and during road transportation to a quarantine station.

Recommendation

I recommend that the *Quarantine Act 1908* be reviewed in order to identify amendments necessary to ensure that the Act clearly and adequately confers all relevant powers to ensure the biosecurity of horse importation and quarantine and to give effect to these recommendations.

3.3 AQIS and Biosecurity Australia: organisational structure

The development, maintenance and implementation of Australia’s quarantine policy are the responsibility of the Commonwealth Department of Agriculture, Fisheries and Forestry. Within the department, four sections are responsible for these tasks—the Australian Quarantine and Inspection Service, Biosecurity

⁵² DAFF.0001.780.0003 at 0010.

⁵³ DAFF.0001.780.0003 at 0011.

⁵⁴ Section 48AB(2).

Australia, the International and Product Integrity Division, and the Animal and Plant Health Division. It is with the operations of AQIS and Biosecurity Australia that I am concerned here.

In general terms, Biosecurity Australia is responsible for giving advice about biosecurity matters, and AQIS is responsible for developing, maintaining and implementing quarantine policy and for administering the Quarantine Act.

AQIS is organised along both national and regional lines. Broadly speaking, each national program is responsible for the development of policies and procedures, for national budgets, and for allocation of funding to the regions, which are responsible for policy implementation. ‘Policy’, as understood by the officials, was not defined. I would take it to include the stances Australia should take in relation to imports, actual and proposed, into Australia, having regard to risks, the means of reducing or eliminating them, and Australia’s trade and international obligations. A fundamental policy, however, that quarantine is for the purpose of separation, isolation and containment is a very simple one and requires no development as such. The rest is simply the taking of all reasonably available steps to give effect to it. That is not ‘policy’: it is simply the development of good practice.

In Chapter 5, which deals with Australia’s policies for the importation of horses, I discuss the need for formal mechanisms to be introduced so that there are regular and systematic reviews of quarantine policies and procedures as between Biosecurity Australia and AQIS. I also discuss the need for clarity in defining Biosecurity Australia’s role in relation to AQIS operational and procedural matters.

3.3.1 AQIS

Until December 2007, at its national level, AQIS operated in two divisions—Quarantine and Exports. Since December 2007 it has included a Business Strategy and Corporate Services division, although that division’s functions have no relevance to this Inquiry. At the time of the outbreak of equine influenza, Ms Jenni Gordon was the Executive Manager of Quarantine. She occupied one of the most senior management positions in the department and reported directly to the Executive Director of AQIS, Mr Stephen Hunter, who in turn reported to the Secretary of the department, Dr Conall O’Connell.

AQIS’s functions are to manage quarantine risks before, on the entry of people, animals, plants and goods into Australia and after it. Those functions are necessarily performed mainly at the border and at post-entry quarantine facilities, although the imposition of conditions with respect to earlier activities provides a means of influencing and even controlling aspects of these.

The Quarantine Division is divided into three branches—Animal and Plant Quarantine, Cargo Management and Shipping, and Border. Each branch has a national manager reporting to the Executive Manager of Quarantine. In August 2007 the National Manager of the Animal and Plant Quarantine Branch was Mr Peter Liehne.

Animal and Plant Quarantine operates a number of ‘programs’—including Post-Entry Animal Quarantine and Live Animal Imports. Only the Animal and Plant Quarantine Branch and its PEAQ and LAI Programs are of relevance here, although I am mindful of the diversity and the demands of others when I consider the role and performance of AQIS and its officers. In August 2007 Mr David Ironside was National Program Manager for both the Post-Entry Animal Quarantine and the Live Animal Imports Programs; he reported to Mr Liehne. For convenience, because that is the way almost universally the officials speak, I generally refer to the ‘programs’, although that nomenclature unfortunately tends to obscure that it is not an impersonal ‘program’ that does or fails to do things, but people who write it and are responsible for giving effect to it.

The principal responsibilities of the Live Animal Imports Program are:

- (a) assessing applications for and issuing live animal import permits, on conditions fixed by the officials administering the program
- (b) the import clearance of live animals, including attending the arrival of the animal, ordering it into quarantine and reviewing the associated documentation against the import permit conditions
- (c) setting and maintaining standards for the approval of private quarantine facilities for imported live animals.

In contrast, the Post-Entry Animal Quarantine Program is, as its title suggests, responsible for the quarantine of live animals following their import into Australia; this includes providing accommodation for and monitoring the condition of the animals during quarantine. It is this program, in both its national and regional manifestations, that is responsible for the management and operation of Eastern Creek Quarantine Station (together with the Post-Entry Plant Quarantine Program).

The national programs are responsible for operational policies and procedures, national program budgets, the allocation of funding within the national program budget to each region, and monitoring and reviewing program performance and service delivery at the national level. (This is the language of the officials.⁵⁵) Regional programs are responsible for the activities of field

⁵⁵ See, for example, WIT.DAFF.007.0001; WIT.DAFF.001.0001.

staff under annual plans and budgets that depend on national program priorities and budgets.

Senior officers of AQIS referred to ‘matrix management’ to describe the organisational structure of the department. An explanation for the adoption of this term lies in the fact that the two programs (national and regional) overlap. For example, the Live Animal Imports and Post-Entry Animal Quarantine Programs, which regulate the importation and post-entry quarantining of horses, are managed nationally insofar as policies and budgets are concerned and regionally in implementation and operation. Whether the structure is truly reflective of a traditional matrix management structure or is well suited to AQIS are questions I do not need to resolve.⁵⁶ I have, however, taken up a consideration of some of its relevant issues elsewhere in this report. What is clear enough, though, is that the way AQIS is managed is—as Mr Ironside came to concede—a ‘challenge’.⁵⁷ Importantly too, I think, the Inquiry raised matters that led even Mr Hunter to concede that the organisational structure required review.⁵⁸

The extent of cross-involvement of programs and the potential for divided responsibility are most apparent in the operations at Sydney (Kingsford Smith) Airport and Eastern Creek Quarantine Station.

When a typical consignment of horses arrives, four programs, involving a number of managers, national and regional, currently bear responsibility for the associated activities:

- (a) The LAI Program is responsible for clearance of the horses.
- (b) The Airports Program, which is part of the Border Branch, has responsibility for clearance of the aircraft crew and passengers, any horse equipment and any personal luggage, regardless of its destination.⁵⁹
- (c) The Import Clearance Program, which is part of the Cargo Management and Shipping Branch, is responsible for clearance of the airstalls.
- (d) The PEAQ Program is responsible for operations at Eastern Creek.

It is not surprising that Dr Widders and Dr Yan Hee Song (who, with Dr Widders, was primarily responsible for attending the arrival of horses) both

⁵⁶ Counsel for AQIS conceded that a plausible explanation for the use of the term was that this management structure was not deliberately implemented but rather the title became a convenient description for what had evolved over time: T4371.

⁵⁷ T324.

⁵⁸ T4095.

⁵⁹ WIT.AQIS.022.0001 at para. 27.

sought advice—plaintively and futilely—about their powers in relation to aspects of the operations at the airport.⁶⁰

AQIS has regional offices in Western Australia, South Australia, Victoria, Tasmania, New South Wales, southern Queensland and Far North Queensland. These offices are responsible for the work mandated by the national programs in the regions.

Each regional office is headed by a regional manager. In August 2007 Mr Graham Turner was Regional Manager for New South Wales; at that time he reported directly to the Executive Director of AQIS, Mr Hunter. In January 2008 AQIS's organisational structure was changed to include a new senior national management position known as Executive Manager Corporate; Mr Turner and the other regional managers now report to the person in that position, Ms Jenet Connell. In turn, Ms Connell reports to Mr Hunter on matters relevant to the functions and operations of the regions.

There are several layers of management of the regions. In New South Wales there are three assistant regional managers reporting to the regional manager. Each assistant regional manager is responsible for a number of national programs as they apply to the particular region. Below the assistant regional managers there is a manager of each of the national programs. In New South Wales in August 2007 Dr Widders had responsibility for the Live Animal Imports, Live Animal Exports, Post-Entry Animal Quarantine, Post-Entry Plant Quarantine, and Operational Science Programs. He reported to Ms Julie Sims, an Assistant Regional Manager, in respect of the LAI and PEAQ Programs. For some of the other programs, he reported to the Assistant Regional Manager, Cargo Management, Shipping and Technical Support.

In August 2007 Mr Greg Hankins was manager of the Eastern Creek Quarantine Station, and in that capacity he reported to Dr Widders, the New South Wales program manager of the PEAQ Program.

At Eastern Creek Quarantine Station some officers are responsible for animal quarantine and others for plant quarantine. An animal quarantine supervisor reports to the Quarantine Station manager, and two senior quarantine officers report to the animal quarantine supervisor. In August 2007 among the designated responsibilities of one of these senior quarantine officers, Ms Rhonda Christesen, was responsibility for matters related to the horses and to the grooms' quarters. Ms Christesen reported to Mr John Holloway, the animal quarantine supervisor at the time.

⁶⁰ See, for example, AQIS.2005.085.0005; T610–T611 (Dr Hee Song); T1010–T1013, T1021 (Dr Widders).

Several departmental officers and employees had not held their positions for very long before August 2007. Dr O'Connell had been appointed Secretary of the department on 7 May, and Mr Hunter had been appointed Deputy Secretary and Executive Director of AQIS some weeks earlier, on 10 April. Ms Gordon's appointment as AQIS Executive Manager, Quarantine, with responsibility for animal programs, took effect at the end of February 2007, although she had previously held other positions in AQIS, including Executive Manager, Quarantine and Plant Programs and National Manager, Animal and Plant Programs. Mr Ironside began as manager of the PEAQ and LAI Programs in March 2006. Mr Hankins had started as manager of Eastern Creek Quarantine Station on 2 March 2007. Mr Holloway had taken up his position only marginally earlier, in February.

3.3.2 Biosecurity Australia

Biosecurity Australia provides science-based quarantine assessments and policy advice to AQIS. It was established in October 2000 within the Market Access and Biosecurity Division of DAFF; before that time those functions had been performed by the AQIS Policy and International Division.⁶¹

In December 2004 Biosecurity Australia was re-established as a prescribed agency under the *Financial Management and Accountability Act 1997* to make it a more independent organisation, although its chief executive remains responsible to the Secretary of the department. Under the SPS Agreement, for example, decisions relevant to import conditions are to be made on the basis of sound science. Such decisions can, as Mr Cahill said in both his written and oral evidence, be quite contentious. Separation therefore of those decision makers from the operational arm of AQIS became a desirable aim.⁶² Mr Cahill conceded, however, that separation, undertaken for reasons that were thought sound at the time, might no longer be appropriate and that closer involvement of Biosecurity Australia in both policy and operations might now more sensibly occur.⁶³ With that independence, an absence of a protocol for regular consultation with AQIS with respect to horse imports, and a general lack of familiarity with actual activities on the ground—including AQIS's activities at airports and quarantine stations, and the activities at pre-export quarantine stations—has come a degree of remoteness from the risks of equine infection and the measures necessary to prevent it.

⁶¹ WIT.BIOS.001.0001 at para. 4.

⁶² T3991, T4005.

⁶³ T4004–T4006.

Biosecurity Australia's responsibilities are as follows:

- (a) conducting import risk analyses
- (b) providing biosecurity policy advice and recommendations as a result of its import risk analyses
- (c) providing to AQIS day-to-day advice on biosecurity matters, including the implementation of biosecurity policy and the consideration of more specific applications for import permits
- (d) providing scientific and technical advice in an effort to open, maintain and improve Australia's access to overseas markets for animals, plants and their products
- (e) participating in the development of international standards relevant to biosecurity policy and policy implementation through the OIE (the World Organisation for Animal Health) and the International Plant Protection Convention.

The staff responsible for these tasks are mostly animal and plant scientists, plant pathologists, veterinarians, epidemiologists, virologists and aquatic specialists, some of them very highly qualified. The organisation should be well placed as a technical expert in each of the areas of concern to it. It can, and does, engage external technical experts from within Australia and overseas from time to time.

Biosecurity Australia has three branches—Animal Biosecurity, Plant Biosecurity, and Biosecurity Development and Communication (this last area is not relevant to this report). Its function is to formulate policies and assess the risks associated with importations, including, of course, importations of exotic pests and diseases of plants, live animals, genetic material and products.

In August 2007 the General Manager of Animal Biosecurity was Dr Robyn Martin. The Senior Scientist in the Animal Biosecurity Branch, and therefore the Principal Scientist (Animal Biosecurity), was Dr Mike Nunn. Both Ms Martin and Dr Nunn reported to the Chief Executive Officer, Mr John Cahill.

As noted elsewhere in this report, it seems to be the fact that Biosecurity Australia had no involvement, as would obviously have been desirable, in the composition of any of the work instructions or procedures relevant to the Spotswood and Eastern Creek Quarantine Stations, in either final or draft form, at the time of the outbreak of equine influenza. Nor is there evidence to suggest that Biosecurity Australia had been consulted or asked to provide technical advice in relation to operations at the airports or the transport of horses from places of landing to the quarantine station.

4 Post-arrival quarantine and clearance

AQIS currently operates five post-arrival quarantine stations: the 22.3-hectare Eastern Creek Quarantine Station for animals and plants, 40 kilometres west of Sydney; the 3.8-hectare Spotswood Quarantine Station for animals, 12 kilometres west of Melbourne; a site for plants at Knoxfield in eastern Melbourne; a 15-hectare station for animals at Byford, 40 kilometres south of Perth; and a 2.7-hectare station for animals at Torrens Island, 25 kilometres west of Adelaide.

The animals quarantined at the four animal stations are as follows:

- (a) Eastern Creek, for dogs, cats, horses, cattle, bees and alpacas, although it has not been used for imported cattle since 1999
- (b) Spotswood, for cattle, horses, dogs, cats and birds
- (c) Byford, for dogs and cats
- (d) Torrens Island, for fertile eggs (that is, a hatchery).

One privately operated station, at Sandown Racecourse in Victoria, conducted by Racing Victoria Limited, has been approved as a post-arrival quarantine station for horses. There is another at Canterbury Park Racecourse in Sydney, operable by the Sydney Turf Club; the subject of an approval under the *Quarantine Act 1908* in 2003, it has not been proclaimed a quarantine station and does not at present receive horses.¹

None of the four government-operated quarantine station sites is owned by the Commonwealth. During 2001–02 the stations at Eastern Creek, Spotswood and Byford were sold to private landowners, and ownership of the Torrens Island site was transferred to the State of South Australia for a nominal sum. In each case the quarantine station was leased back to the Commonwealth. The current position in relation to each of these leases is as follows.

- (a) The Eastern Creek lease expires on 30 December 2010, with a five-year option exercisable by 30 September 2009.
- (b) The Spotswood lease expires on 30 November 2008, with a two-year option exercisable by 30 August 2008. There is some indication that the

¹ WIT.DAFF.002.0001 at para. 15.

lessor might be prepared to grant a further lease of the property, beyond November 2010.²

- (c) The Byford lease expires on 31 December 2008, and a one-year option is available there.
- (d) The Torrens Island lease expires on 30 June 2009, and there is no option to renew it. South Australia did, however, advise the Inquiry that a further lease could be granted for a rental to be negotiated. The current rental is nominal.³

Recommendation

I recommend that, in the absence of other satisfactory government controlled and operated post-arrival quarantine stations becoming available before the options to renew the leases of Eastern Creek and Spotswood Quarantine Stations expire, those options be exercised.

During the Inquiry I inspected the quarantine premises at Eastern Creek, Spotswood and Sandown Racecourse, the transfer ‘corral’ at Sydney Airport and the area where horses are disembarked at Tullamarine Airport. The visits informed my understanding of the structure and operations of these places.

I also heard evidence about the quarantine facilities and measures in Hong Kong; I include a description of them at the end of this chapter.

4.1 Eastern Creek Quarantine Station

In the late 1970s the Commonwealth Department of Health (then responsible for all forms of quarantine) embarked on a substantial program of building and securing animal quarantine stations across Australia. The Eastern Creek improvements were made at a cost of \$4.6 million, replacing a smaller station at Abbotsford Point in Sydney. The site at Eastern Creek was owned by the Commonwealth and had previously been part of the Wallgrove Army Camp. It opened as a quarantine station in 1980. The Commonwealth retained the freehold until the land was sold in April 2001. It then took a lease beginning on 1 June 2001.⁴ In 2002 the land was resold, subject to the lease.⁵

As well as the animal and plant quarantine facilities, the station houses the AQIS detector dog unit.

² DAFF.0001.704.0115 at 0019.

³ DAFF.0001.704.0115 at 0118.

⁴ CORR.0006.002.0009; DAFF.0001.871.0001.

⁵ CORR.0006.002.0011 at 0014.

Entrance to the station is by the main security gate. Until 1992 this was a manually operated boom gate; since then access has been through an automatic retractable security gate operated by a pass. In 2002 the access pass was replaced with a swipe card. The perimeter fence of the station is approximately 1.8 metres high; within it are internal compounds enclosed with similar fencing to separate the dogs and cats, the detector dogs, the horses and the plant quarantine facility.⁶ There is also a separate bee house.

The dog compound contains 10 rows of kennels, totalling about 390 kennels. There are two catteries in the cat compound; together they contain about 145 pens. The horse compound contains 90 stables in six rows of 15 stalls. The rows are labelled A to F. There are also turnout yards, a dressage arena and a horse surgery. Entrance to the horse compound is via a padlocked gate.⁷

The detector dog compound consists of four kennel blocks, each containing about 40 kennels as well as exercise yards.⁸ These were relocated from a joint customs kennelling facility to Eastern Creek in 1998 to 1999. The bee house is in a separate, secure enclosure that consists of 12 cubicles capable of housing 24 queen bees.⁹

The Quarantine Station also has an administration building, a number of service buildings, an amenities block, and accommodation for grooms.¹⁰ In August 2007 about 22 staff were working in animal quarantine, and about seven staff were assigned to science and plants. During business hours—Monday to Friday, 8.00 am to 4.30 pm¹¹—access to the station was through the main office.

4.2 Spotswood Quarantine Station

Spotswood Quarantine Station was built in 1958. The land on which it sits was Commonwealth land until 2002, when it was sold and leased back to the Commonwealth.¹² The station is bounded by a 2-metre-high fence. Originally, vehicle access was through a manually operated security gate, but in about 1995 an electronic gate was installed. A pedestrian gate, which was locked at all times, was located next to the gatehouse.

⁶ CI.0001.024.0015.

⁷ AQIS.0002.014.0960 at 0961.

⁸ DAFF.0001.740.0886 at 0888.

⁹ CORR.0006.002.0011.

¹⁰ CORR.0006.002.0011.

¹¹ WIT.AQIS.012.0001 at para. 16.

¹² CORR.0006.002.0009; DAFF.0001.869.0001.

Within the station are separate compounds for horses and cats and dogs, each enclosed by 1.8 metre-high fencing. The dog and cat compound contains about 85 dog kennels and 60 cat pens.¹³ Before the outbreak of equine influenza, a new block of cat pens had been constructed in the old horse stables¹⁴, between the main stable building and the cattle shed, although access to the balance of the horse compound was restricted by locked gates and doorways between it and any other part of the compound.¹⁵

The horse compound contains 33 enclosed stalls in two rows separated by a passageway. Each stall opens on to a small outdoor yard. In the main stable building there is a lavatory, a shower and a feed storage area. Before the outbreak these were available for showering by visitors before leaving Spotswood. There was also an open cattle shed with 24 yards within which portable pens were set up so that horses could be held there at night.¹⁶ Entry to the shed was by the southern end, although there was an entrance through a portable showering hut located to the north. During the day, any horses in the temporary pens had access to four ‘day paddocks’ at the southern end of the station.¹⁷

Maintenance and cleaning of the horse compound and care of the horses are the responsibility of the importer or agent and grooms employed by them. At present there is no permanent accommodation for grooms at Spotswood, and most of the regular grooms live locally. Grooms are accommodated on site only two or three times a year; on these occasions the importers or agents hire a caravan, placing it just outside the shower block in the main stable complex.¹⁸

There is also an avian area in the horse compound. It provides a microbiologically secure environment, and quarantine staff are responsible for care and maintenance of the birds and for cleaning the area. There are on average three avian shipments a year.¹⁹

Before August 2007 Spotswood’s front gate was locked 24 hours a day.²⁰ All visitors were required to sign the visitors book at the entry gate.²¹ Usually, access outside business hours was granted only in an emergency. Mr Angelo Ravaneschi, Assistant Manager, lived on site, and any arrangements for out-of-

¹³ DAFF.0001.565.0053 at 0061.

¹⁴ SPOT.0001.001.0003.

¹⁵ T3171.

¹⁶ WIT.SPOT.001.0001 at paras 4–6.

¹⁷ SPOT.0001.001.0002; SPOT.0001.001.0003.

¹⁸ T3173.

¹⁹ DAFF.0001.639.2309.

²⁰ T3138 (Gundry).

²¹ WIT.SPOT.001.0001 at para. 16; T3175–T3176 (Gundry).

hours access were made with him. He was available therefore to assist in the event of any emergencies arising in the station.

4.3 Sandown Quarantine Station

An area and improvements on it at Sandown Racecourse, in Dandenong, have been proclaimed a quarantine station²², and AQIS must approve all who enter it.²³ It is the subject of a deed between the Commonwealth and the Victoria Racing Club (the then operator of it), executed in October 2000.²⁴ Included as a part of the deed (as required by Clause 1.2) is a Hazard Analysis Critical Control Point (HACCP) Program²⁵, which identifies quarantine risks associated with the operation of the station and control measures to be applied to prevent or deal with the identified hazards; it also sets out standard operating procedures for the various people who have access to the site.

Horses were first quarantined at Sandown in 1993. A purpose-built station, now known as the Woodlands Compound (previously Pondage Compound), for the quarantining of racehorses was constructed and became operational in 1997.²⁶ The compound initially consisted of one stable with eight stalls in it. In about 1999 two further stable blocks were constructed, each with three stalls. The compound also contains an isolation stable for ill horses. Each stable building is separated by 25 metres, which is the minimum requirement of some countries for separation of horses with non-equivalent health status. The different buildings allow for some separation of horses by reference to countries of origin or destination in order to comply with the pre-embarkation quarantine requirements of those countries.²⁷ There is on-site accommodation in the Woodlands Compound for two grooms.²⁸

A second set of improvements, known as the Tabaret Compound²⁹, was built in about 2000. It has no on-site accommodation for grooms.³⁰ This compound includes a security building where a security guard takes visitors through an entrance procedure, which involves signing the entrance register and swiping an access card on the electronic lock to gain access to the inner part of the security hut where there are a lavatory, bathroom and shower and laundry. On

²² Section 14(1)(e) and Part 1 of Schedule 1 to the Quarantine Proclamation 1998.

²³ T2825 (O'Callaghan).

²⁴ DAFF.0001.067.0011.

²⁵ SAND.0001.001.0012.

²⁶ WIT.SAND.001.0001 at para. 5; SAND.0001.001.0009.

²⁷ WIT.SAND.001.0001 at para. 33.

²⁸ T2820 (O'Callaghan).

²⁹ SAND.0001.001.0010.

³⁰ T2820 (O'Callaghan).

entry to the area, a visitor must either change clothes or put on overalls, depending on his or her category of entrant (according to the HACCP Program), and then may go through a door giving access to the broader compound. The procedure for leaving the quarantine area requires passage through the same security building and the changing of clothes or showering, depending upon the visitor's category according to the HACCP Program.³¹

The Woodlands and Tabaret Compounds are run as completely independent quarantine stations and each has a 24-hour security presence. Horses undergoing quarantine at Sandown can leave the secure quarantine area and use the racetrack under the direct supervision of a quarantine officer. This allows the horses to remain in training while in quarantine.³²

4.4 Privatisation of horse quarantine

In some countries, certainly Japan, the Republic of Ireland and the United States, quarantine stations for horses are owned and operated by private persons rather than governments and, in some of these, by the owners of horses to be exported or imported from time to time.³³ In the past, owners in Australia have suggested to officials that private operators might similarly build and operate horse quarantine stations in this country.³⁴ The suggestions were no more concrete than that: they were never made in such detail or to officials of such authority as to require any decision that privately operated quarantine stations for horses, other, of course, than Sandown and Canterbury, be authorised to operate. The owners of both the Darley and Coolmore studs have on occasions either provided money for the making of some improvements at Eastern Creek or made improvements with the permission of AQIS, although the amounts and the dates of the work were not in evidence.

³¹ T2822–T2824 (O'Callaghan).

³² AQIS.2005.010.0009 at 0012.

³³ Private animal post-entry quarantine facilities in Australia are generally zoos or commercial facilities that import ornamental fish or laboratory animals. AQIS certifies their status as quarantine-approved premises under s. 46A of the *Quarantine Act 1908*. A draft Cabinet-in-Confidence paper (DAFF.0001.578.0002_R) shows that at April–May 2007 no state or territory government or scientific or research facility was approved to administer post-entry quarantine for animals, although privately operated post-entry animal quarantine facilities were approved in the ACT (seven), New South Wales (48), Queensland (34), South Australia (nine), Tasmania (three), Victoria (37) and Western Australia (19). Details of these premises are not released because of privacy considerations, but examples are universities, private research companies and wildlife parks. See also T2556 (Holloway).

³⁴ T555–T556, T565–T567 (Sunderland).

In 1996 the Nairn Report recommended privatisation of quarantine stations. In August 1997 the ‘government response’ to that report was to accept the recommendations (Recommendations 82 and 83).

In late 2005 AQIS formed the Post-Entry Quarantine Working Group to consider and provide options for the future of the nation’s animal and plant quarantine stations.³⁵ The option of privatising quarantine of cats, dogs and horses was recommended on the basis that these involved lower risk imports that could be managed in suitably regulated private facilities but that high-risk imports should continue to be handled at Commonwealth-operated facilities.

In 2006 that option was the subject of an undated report by Dr Terry Roberson, following discussions and consultations with various interested parties, including, in relation to horses, members of the Horse Industry Council. The report noted that in the case of horses the other interested parties expressed concern about whether horses were in fact a ‘low risk commodity with regard to border security’ as well as concern about whether it would be commercially viable to build the facilities required to handle the volume of horses arriving in Australia each year. They were also worried that privatising facilities might enable private groups to set up on their own properties post-arrival quarantine facilities that would not be generally available.³⁶ In a letter dated 14 August 2006 to the Animal Health Committee³⁷, the Australian Horse Industry Council stated its opposition to the privatisation of horse quarantine on the basis that such a move could ‘inevitably lead to the lowering of standards and the introduction of EI to Australia’.³⁸ The view that horses were ‘lower risk imports’ was not universally held within AQIS; for example, Dr Phillip Widders told the working group in July 2006 that, in his view, they were not.³⁹

A number of arguments can be advanced in favour of privatisation of horse quarantine, among them the following:

(a) The Nairn Report made recommendations for it:

81. The Review Committee recommends that the animal quarantine stations operated by Quarantine Australia should be on a more commercial basis

³⁵ DAFF.0001.704.0115 at 0116.

³⁶ DAFF.0001.041.0069 at 0077–0078.

³⁷ The Animal Health Committee comprises the Chief Veterinary Officers of the Commonwealth, states and territories and New Zealand, along with representatives from the Australian Animal Health Laboratory and Biosecurity Australia. AQIS and Animal Health Australia participate as observers. The main purpose of the committee is to develop science-based and nationally consistent policy on animal health matters and to provide advice as necessary on animal health to the Primary Industries Standing Committee and Primary Industries Health Committee: EII.0008.001.0025.

³⁸ DAFF.0001.041.0041.

³⁹ DAFF.0001.740.0629.

by introducing a system of forfeitable bonds for allocations of space, with bonds being forfeited if offers are not taken up within a specified period.

82. The Review Committee recommends that, in principle, Government animal quarantine stations should be offered for privatisation, subject to audit by Quarantine Australia and maintenance of appropriate security.
 83. The Review Committee recommends that, in principle, private onshore high security animal quarantine stations should be permitted, subject to audit by Quarantine Australia and maintenance of appropriate security.
- (b) AQIS's design and operation of the horse quarantine station at Eastern Creek, and to a much lesser extent at Spotswood, have been less than satisfactory.
 - (c) The cost of building and operating an efficient, publicly owned horse quarantine station is very high.
 - (d) Some horse owners might be willing, and have the financial capacity, to build and operate their own horse quarantine stations.
 - (e) Sandown appears to function well and has certainly performed better than Eastern Creek.
 - (f) The demands of other animals and the need to provide quarantine for plants could detract from the effective quarantining of horses.
 - (g) Horses, especially shuttle stallions, present unique problems by virtue of their size and weight, their capacity to injure themselves and people, their movement from country to country, their value, their need to be handled and cared for by specialised farriers, grooms, veterinarians, chiropractors and others, and the high cost of their transportation. These difficulties might be better dealt with by people having a direct financial interest in and a detailed knowledge of the horses' needs.
 - (h) Quarantining, but not of horses, is done by many private operators and on many premises not owned or controlled by the Commonwealth.

These arguments in favour of privatising, or outsourcing, horse quarantine cannot be lightly dismissed. Even so, on balance I think horse quarantine in this country should continue to be a government function, subject only to special cases, of which Sandown is one. Sandown is not operated for profit: it has a particular purpose, the business of horse racing, although other horses are occasionally quarantined there. It is operated by a state statutory authority. In saying this, I am conscious that I might appear to be at odds with the Nairn Committee and the government response to the committee's recommendations. These are not, however, entirely unambiguous. In August 1997 recommendation 82 was accepted in principle. Both it and the response to it need to be read with recommendation 81 and the response to it, which was

simply 'Accepted'. No further review has ever taken place. The acceptance in principle of recommendation 82 has not moved far beyond that.

The reasons for my view that horse quarantine should continue to be operated by the Commonwealth are as follows:

- (a) There is a wide and deep community interest in the effective quarantining of imported horses, beyond the interests of those who own valuable stallions.
- (b) Australian primary production, the business of horse racing, equestrian sports, and other equestrian activities make an important contribution to government revenues and to employment and are of great importance to the national economy.
- (c) There is at least a question about whether all privately operated quarantine stations in other countries have always performed satisfactorily.
- (d) As a matter of fairness, and despite provision that might be made, by way of conditions, new legislation and current competition law, for access by all importers of horses, thoroughbred or otherwise, privatised stations might not be accessible to all horse owners on fair and reasonable terms.
- (e) Since before Federation large animal quarantine has been an important government (state or federal) function and has generally been conducted with few detected failures.
- (f) The Constitution confers power over quarantine on the Commonwealth.
- (g) Questions of international arrangements, comity and expanding trade, which are Commonwealth matters, can influence and are involved in decisions about quarantine.
- (h) The Commonwealth already has a substantial investment in its existing, albeit leased, quarantine stations.
- (i) Quarantine is not a service: people whose animals are subjected to it are not customers or clients; and quarantine officers have regulatory and policing functions and need to be unmistakably armed with official powers to carry out those functions.
- (j) If the recommendations I make are implemented, the Commonwealth should be able to ensure proper quarantining of horses in the future at stations it controls and operates.
- (k) The officials responsible for implementing the government response to the relevant recommendations of the Nairn Report did not advance the proposal for 10 years, and then only by a submission that did not reach

Cabinet and focused on the financial implications of the continuation of government control or otherwise of quarantine stations, and did not pay, in my opinion, sufficient attention to the risks to biosecurity presented by imported horses, especially shuttle stallions and the need for reasonable access to all.

An undated draft ‘policy paper’⁴⁰ developed by the Post Entry Quarantine Working Group⁴¹ summarised the current quarantine arrangements and gave the dates of expiration of the leases of the land on which quarantine stations operate. Although the document was never provided to the Cabinet, the Department of Agriculture, Fisheries and Forestry, in its submissions to the Inquiry⁴², accepted that ‘the directions discussed in the draft policy paper ... had been the subject of extensive consideration and consultation within DAFF over a number of years since the 1990s and are reflected in Government policy since the Government’s response to the Nairn Review in 1997’.

The paper noted that in Australia there were 63 private post-entry quarantine facilities for plants and 157 for animals, in addition to state government and academic establishments, all of which have operated satisfactorily. The paper recorded that, with the assistance of property consultants, AQIS had assessed the costs of buying and building new quarantine stations. Four options were then considered:

1. AQIS continues to provide post entry quarantine for the current range of species and other quarantine material at a single AQIS owned and operated facility.
2. AQIS continues to provide post entry quarantine for the current range of species and other quarantine material at two AQIS owned and operated facilities.
3. AQIS only provides post entry quarantine for significant high risk quarantine material at a single national site.
4. AQIS only provides post entry quarantine for significant high risk quarantine material at two national sites.⁴³

The paper then states, however:

The options also assume that the Government’s position on provision of post entry facilities remains that high risk imports need to be controlled in AQIS operated facilities, while lower risk imports may be handled in appropriately regulated private facilities.⁴⁴

⁴⁰ DAFF.0001.578.0002_R.

⁴¹ SUBS.DAFF.006.0001 at para. 6.

⁴² SUBS.DAFF.006.0001.

⁴³ DAFF.0001.578.0002_R at 0003_R–0004_R.

⁴⁴ DAFF.0001.578.0002_R at 0004_R; see also DAFF.0001.207.2328 at 2329.

The term ‘high risk imports’ was not defined in the paper. To ascertain what they were, I went to Attachment C, Business Case C, which refers to bees, birds and plants as high-risk materials.

Papers from the AQIS Leadership and Governance Committee⁴⁵ and the Animal Health Committee⁴⁶ state that these animals were classified as ‘high risk’ for two reasons:

- (a) There were no existing standards for the operation of private facilities for these animals.
- (b) Because of the high cost of provision of these facilities in relation to the intermittent and low volume of imports, there was no commercial interest in provision of services for such imports and any private operators would be likely to pass on the full costs of such facilities to the importers of birds and bees. This would increase the incentive for importers to try to smuggle these species, bypassing the quarantine system altogether.

These papers recommended that, because of these factors, facilities for these animals should continue to be provided by AQIS.

The author(s) of the draft policy paper reached the following conclusion:

3.2 Funding Issues

Of the four options considered to date, initial work indicates that the provision of post entry facilities by the private sector for all low and medium risk imports, together with the consolidation of the remaining AQIS operated post entry quarantine facilities into a single national site, would be the most cost effective option.

Currently, the cost of maintaining post entry quarantine facilities is largely recovered from the importers. However, for some species the cost of maintaining facilities can be disproportionately high when compared to the value of the species being imported. If the full costs were passed onto importers the resultant fees and charges could create a perverse incentive to bypass quarantine and smuggle material into Australia. To reduce this risk, \$1.7 million Budget supplementation is provided to AQIS each year to meet some post entry operating costs.

It is likely that further Budget supplementation, beyond the existing \$1.7 million per annum, would be required to establish any new AQIS operated post entry facilities and to support ongoing AQIS operation of these facilities. Post entry quarantine facilities need to be purpose built, thus limiting the market from which to lease facilities. There are strong benefits in the Government owning rather than leasing facilities, in terms of security of tenure and minimisation of exposure to monopoly leases. The costs and

⁴⁵ SUBS.DAFF.006.0032 at 0034; SUBS.DAFF.006.0043 at 0050.

⁴⁶ DAFF.0001.852.1168.

logistical challenges involved with the relocation of operations to new post entry facilities are also significant.⁴⁷

No explanation was in evidence as to why the policy paper, produced years after the government response to the Nairn Report, was ‘initial work’ only.

In due course, a draft minute to the Minister and a draft letter to the Prime Minister for consideration by the Minister were prepared, and the policy paper was attached to them. Beyond that, the matter did not proceed because of the intervening federal election.⁴⁸ In the minute to the Minister the author(s) named Ms Gordon as a participant and correctly pointed out that industry groups, including horse associations, have sought guarantees that AQIS will continue to provide facilities for their species. The executive summary is as follows:

Leases on the five post entry quarantine facilities operated by the Australian Quarantine and Inspection Service (AQIS) are due to expire over the period from 2009 to 2015. The pending expiry of these leases means it is necessary to consider future arrangements for AQIS operated post entry quarantine facilities. A draft letter to the Prime Minister is attached seeking his agreement to:

- policy approval for future AQIS operated post entry quarantine facilities to focus on high risk quarantine material. All other lower risk material is to be managed in post entry facilities operated by state or territory Governments, or private owners; and
- develop specific options to implement this approach, in consultation with Senior Ministers, bringing forward detailed proposals for consideration in the 2008–09 Budget process.

The provision of secure horse quarantine stations at sites other than Eastern Creek in New South Wales and Spotswood in Victoria, whether privately or publicly operated, is, as a matter of reality, years away.

To the extent that it deals with it, the policy paper supports my concern about restriction of access for people other than the owners of valuable horses if horse quarantine were to be privatised. Ownership by the Commonwealth prevents this and also ensures security of tenure at a site. Neither of these factors nor any of the considerations that led me to my view receive adequate consideration in the document. In any case, it seems to me that recent events, the outbreak of equine influenza and the enormous cost that has been incurred as a result support the conclusion that horses present an inherent quarantine risk and should for that reason be considered ‘high risk imports’.

It follows, in my view, that, despite anything that might argue the contrary in the Nairn Report, horse quarantine should continue to be operated by the Commonwealth, under its immediate and direct day-to-day management and

⁴⁷ DAFF.0001.578.0002_R at 0004_R.

⁴⁸ T3544 (Gordon).

control. I am of this opinion despite Mr Stephen Hunter's tentative different view and the view expressed in the draft submission to Cabinet.⁴⁹

In its submission the Australian Horse Industry Council⁵⁰, like Dr Widders⁵¹, expressed opposition to the privatisation of horse quarantine and provided persuasive reasons for that opinion. I agree with it.

Recommendation

I recommend that there continue to be in Australia government controlled and operated post-arrival quarantine stations for horses.

4.5 Livestock transfers at Sydney (Kingsford Smith) Airport

The livestock transfer corral at Sydney (Kingsford Smith) Airport is located inside the airport perimeter to the north of the Qantas freight area. There are three gates, a shed, a ramp and some stables.⁵²

The airport is leased for a long time by Sydney Airports Corporation Limited. Aero-Care Flight Support Pty Limited manages the transfer area on behalf of Sydney Airports Corporation. Aero-Care is responsible for coordinating access to it, and for its general upkeep, including cleaning and disinfection following the passage of livestock through it.

A procedures manual was jointly prepared by Aero-Care and Sydney Airports Corporation.⁵³ Issued in August 2004, the manual deals with procedures for booking the corral, terms and conditions for the issue and use of the security keys, training, opening and closing the corral, provision of access, responsibilities during livestock transfer, and cleaning to AQIS standards.

Import agents or brokers make requests to use the facility to Aero-Care by a document described as a 'livestock transfer facility booking request'.⁵⁴ It must be signed by the customer, who acknowledges receipt of the 'Terms & conditions for use of livestock facility at Sydney (Kingsford-Smith) Airport' issued by Sydney Airports Corporation⁵⁵ and who agrees to be bound by those

⁴⁹ T4148–T4151.

⁵⁰ SUBS.AHIC.001.0001.

⁵¹ T4147–T4148.

⁵² CI.0001.024.0003; SAC.0001.001.0026.

⁵³ SAC.0001.001.0037.

⁵⁴ SAC.0001.002.0286.

⁵⁵ SAC.0001.002.0286 at 0287.

conditions. The conditions include compliance with any directions given by Aero-Care in relation to use of the facility. Sydney Airports Corporation must be notified of any bookings.

4.6 Livestock transfers at Tullamarine Airport

There is no separate livestock area or corral at Tullamarine Airport, although one area is in practice used. Transfers of horses from airstalls to road transport take place on the tarmac, just outside the Menzies cargo terminal, which is near the Qantas freight inspection area.⁵⁶ An unloading ramp owned and supplied by Crispin Bennett International Horse Transport⁵⁷ is used to transfer the horses. Any other vehicles that are there to pick up horses are parked in such a way as to form a barrier, a kind of improvised temporary enclosure, around the ramp.⁵⁸

In September 2007 Ms Erika Rogers, Acting Compliance Manager, Airports Program, voiced her concerns about the risks associated with the ‘antiquated’ arrangements for the transfer of live animals at Tullamarine.⁵⁹ Ms Rogers recommended the construction of a purpose-built livestock transfer facility and suggested that quarantine legislation should require that livestock exports and imports take place only at airports that have AQIS-approved livestock transfer facilities. Ms Rogers said a purpose-built facility would do the following, among other things:

- (a) provide a safe working environment for importers and exporters, agents, livestock handlers, transport operators, airport staff and quarantine staff
- (b) provide a safe handling environment for livestock, thereby allaying animal welfare concerns. Ms Rogers suggested that this was not significant only for animal welfare, but also that export trade could be halted if the current loading and unloading practices were noticed, and that AQIS might not be able to meet its regulatory export obligations with respect to proper stock handling
- (c) reduce the risk of animals escaping and interfering with the operation of the airport
- (d) improve the efficiency of inspection by AQIS veterinarians and quarantine officers for live animal imports and exports
- (e) strengthen disease control, containment and isolation.

⁵⁶ T1359–T1360 (Bennett); DAFF.0001.552.2068 at 2076.

⁵⁷ WIT.CBHT.001.0001 at para. 15.

⁵⁸ WIT.AQIS.026.0001 at para. 19; WIT.AQIS.028.0001 at para. 11; T1038 (Widders), T3291–T3292 (Nunn), T4375 (Hore).

⁵⁹ DAFF.0001.552.2068.

In his evidence Mr Hunter said he had visited Tullamarine Airport and spoken to the quarantine officers who cleared the horses. They had expressed concern about the difficulties involved in not having an area to corral the horses and the fact that they needed to clean up after the horses had been unloaded. Mr Hunter said he understood these to represent safety concerns, rather than biosecurity concerns.⁶⁰ It is axiomatic, I think, that threats to the safety of people engaged in horse importation, and biosecurity in the course of it, are also threats to biosecurity itself. The more safely work can be done the better it is likely to be done.

Recommendations

I recommend that the facilities for unloading and transferring of horses at Sydney (Kingsford Smith) Airport be upgraded without delay, following the advice of experts in biosecurity containment, so as to enable appropriate biosecurity precautions to be taken effectively and to minimise the risk of injury to horses and those handling them. The facilities should include at least one padded box or stall sound-proofed to the extent that it is reasonable to do so.

I recommend that facilities for the unloading and transferring of horses at Tullamarine Airport in Melbourne be constructed urgently, upon advice of experts in biosecurity containment, to enable adequate biosecurity precautions to be taken effectively and to minimise the risk of injury to horses and those handling them.

I recommend that there be provided without delay at Sydney (Kingsford Smith) and Tullamarine Airports facilities to enable people who might have had contact with imported horses to shower and change their clothes, under supervision, before leaving the airport.

I recommend that there be similar facilities for the unloading and transfer of horses at any other airport in Australia that might receive horses imported from places other than New Zealand.

4.7 Quarantine in Hong Kong

The Hong Kong Jockey Club is responsible for managing day-to-day pre-export quarantine and post-arrival quarantine arrangements for horses arriving in and departing from Hong Kong.⁶¹ There are three quarantine facilities. A facility at the Sha Tin Racecourse accommodates 108 horses in 18 secured blocks of stables. The Happy Valley stables accommodate 100 horses in five secured floor sections. A temporary facility has also been constructed for the Beijing Olympics; it accommodates 200 horses in eight secured blocks of stables.⁶²

⁶⁰ T4100 (Hunter).

⁶¹ WIT.HKJC.001.0001 at para. 2.

⁶² WIT.HKJC.001.0001 at para. 11.

Following the outbreaks of equine influenza in Australia and Japan in 2007, the Hong Kong Jockey Club undertook a comprehensive review of its quarantine station operations. The review involved a risk analysis examination (a HACCP review) as well as consultations with epidemiology groups and equine quarantine facilities around the world. The conclusion reached by the review team was that the procedures offer a high level of confidence and protection against the risk that equine influenza might enter and escape from a quarantine station in Hong Kong.⁶³

The procedures in Hong Kong differ in a number of respects from those in operation in Australia before the August 2007 outbreak. Horses imported into Hong Kong had to be vaccinated with a specified vaccine—the Resequin (Intervet) vaccine. The Hong Kong Jockey Club reviewed the vaccines it required to be used annually.⁶⁴ Testing is conducted on two occasions while horses are in post-arrival quarantine. The swabs are taken on the first working day after the horses' arrival and the last day before their release. Tests could be performed using a qPCR test or antigen-capture ELISA test or by using an immuno-assay kit. Until recently the Hong Kong Jockey Club preferred the use of the Directigen Flu-A test kit. A recent trial, however, of the Espline A&B-N test kit has resulted in its adoption. The Espline test is preferred because it is a two-step rapid-screening test as no additional reagent is required. In comparison, the Directigen Flu-A test is an eight-step test with additional reagent and dilution of samples required.

Since 1998 the Hong Kong Jockey Club's use of the Directigen Flu-A test had yielded no positive result of equine influenza in an average annual population of 1285 horses in training per racing season. In the 10 years from 1 July 1997 to 13 July 2007 there was a total horse population of 4553 in Hong Kong, and a total of 5942 Directigen Flu-A tests were conducted.⁶⁵

As at Sandown, in Hong Kong there are in use a 24-hour security presence and continuous surveillance by closed-circuit television. Entrants to stable blocks are recorded by the use of a biometric identification machine for log in and log out at the premises.⁶⁶ The Hong Kong facilities apply a more strict 'all in, all out' policy than AQIS was applying in and before August 2007. All Hong Kong quarantine intakes are required to have undergone pre-export quarantine at the same premises at the same time. There was no mixing or contact permitted between horses from different quarantine premises. Physical

⁶³ WIT.HKJC.001.0001 at para. 8.

⁶⁴ WIT.HKJC.001.0001 at para. 10(b)-(h).

⁶⁵ WIT.HKJC.001.0001 at para. 10(i).

⁶⁶ WIT.HKJC.001.0001 at para. 12.

separation was achieved by confining a single batch of horses to each floor or block of the quarantine station.⁶⁷

Horses in post-arrival quarantine were inspected daily by a veterinarian. Strict biosecurity measures within and for entering or leaving the facilities were applied. These included insistence upon the use of automatic hand sterilisers at the security post and the disinfection of shoes, hands and nose on departure from one stable block and before entering another. Disposable overcoats were discarded on exit from a stables block or floor. Showering out was required before leaving the quarantine station.⁶⁸

The Hong Kong facilities and procedures were impressive, and I was much assisted by the cooperation and evidence of Dr Brian Stewart and Dr Kenneth Lam who are responsible for operations there.

Recommendations

I recommend that the facilities at Eastern Creek and Spotswood Quarantine Stations be reviewed by AQIS in consultation with experts in biosecurity and interested parties including state and territory governments, import agents, veterinarians, farriers, operators of private quarantine stations, and representatives of horse owners, horse racing organisations and equestrian organisations. There should in any event be constructed without delay, an adequate supply of hygienic, modern showering facilities and places of entry and exit to the stations and the horse sections of them that can be supervised and monitored continually. There should also be provided at those stations as soon as is practicable suitable means of electronic surveillance, including closed-circuit television; a secure place to store chemicals, drugs, instruments and equipment for use by people attending the quarantined horses, and a set of horse stalls and yards separate from the main stalls and yards to enable isolation of horses suffering from contagious or infectious diseases. These reviews should also consider the desirability of separate areas in quarantine stations to hold horses forming part of a single quarantine intake but that have been imported from different regions or have undergone pre-export quarantine in different places. The reviews should be carried out without delay, and the two quarantine stations should be upgraded in accordance with the recommendations of the reviews.

I recommend that each government controlled and operated quarantine station have sufficient staff to carry out properly all activities and measures required by the current operating procedures dealing with the quarantine of horses.

I recommend that the budgets for airport reception of horses and government controlled and operated quarantine stations be determined so as to be sufficient to fund the operations of the Quarantine Stations in accordance with these recommendations and any further procedures and requirements that are laid down from time to time.

⁶⁷ WIT.HKJC.001.0001 at para. 21.

⁶⁸ HKJC.0001.001.0006 at 0015.

5 The importation of horses and the policies that apply

Although horses have been imported into Australia since 1788, the first air transport of horses was from the United Kingdom in 1973. Because of concerns about infection from insect-borne diseases during transit, they travelled westward across Canada and the Pacific.¹

In the early 1990s increases in the understanding of diseases, particularly insect-borne diseases, and their epidemiology led to changes in the routes used. Insect-proofing of containers, using very fine netting and insecticides, allowed horses to be carried by air from Europe via the Middle East and Asia, reducing the travel time by about 10 hours. The approved routes included transit stops in Dubai, Hong Kong and Singapore.²

In the late 1990s horses were permitted to be carried in cargo freighter aircraft in open stalls, provided the horses and the cargo hold were sprayed with insect repellent.³ When horses were first imported from the United States they were imported via Canada between December and April. In the 1990s a better understanding of particular diseases—vesicular stomatitis and equine encephalitides—enabled year-round direct importation from the United States.⁴

Because New Zealand has been free of equine influenza and a number of other equine diseases, horses travelling from that country to Australia do not have to undergo pre-export quarantine or post-arrival quarantine⁵; they are brought to Australia by both air and sea.⁶ The number of horses imported into Australia from New Zealand and other countries between 1996 and October 2007 are set out in Table 5.1. Some of the horses imported into Australia from various other countries are exported to New Zealand as soon as they have completed their PAQ. About 50 per cent of the horses New Zealand imports come via Australia. Before August 2007 they did not undergo any quarantine in New

¹ DAFF.1000.008.0092.

² WIT.BIOS.003.0001 at para. 15 (Martin); T2895.

³ T2895 (Martin).

⁴ WIT.BIOS.003.0001 at para. 15 (Martin).

⁵ DAFF.1000.008.0092 at 0094.

⁶ T2895–T2896 (Martin). Some horses are also imported by sea from New Caledonia, which is free of equine influenza, and treated in the same way as New Zealand horses.

Zealand.⁷ Horses that are imported into Australia and must undergo PAQ can only currently do so at Eastern Creek, Spotswood or Sandown.

Table 5.1 Number of horses imported into Australia, 1996 to October 2007

Year	Exporting country	
	New Zealand	All other countries
1996	931	169
1997	1358	131
1998	2411	493
1999	5330	549
2000	4714	765
2001	1972	489
2002	2009	538
2003	1622	548
2004	1829	717
2005	2194	628
2006	2247	897
2007 (to October)	2079	542

What follows in Sections 5.1 to 5.7 is a description, in general terms, of the things that do or can happen during the importation of horses. Specific detail of what in fact happened in relation to the consignments received at Eastern Creek and Spotswood in August 2007 is provided elsewhere in this report. Section 5.8 and following sections deal with the development of the various policies regulating the importation of horses. This chapter concludes with a consideration of their inadequacies, particularly with respect to vaccination, pre-export quarantine and post-arrival quarantine.

5.1 Importers and import permits

The importation of any horse begins with the completion of an ‘Application for permit to import quarantine material’ made in writing to the Australian Quarantine and Inspection Service. The form calls for details about the importer and the exporter, the identity of the horse, the premises where the horse will undergo pre-export quarantine, the official veterinary service that will supervise the PEQ, the mode and route of travel to Australia, the port of entry, and the approved quarantine station where the horse will undergo post-arrival quarantine.

⁷ DAFF.1000.008.0092 at 0094.

The application is usually made by an import agent or broker on behalf of the owner or other interested party. Four import agents currently arrange almost all importations of horses into Australia—International Racehorse Transport Pty Limited, Crispin Bennett International Horse Transport Pty Limited, New Zealand Bloodstock Limited, and Instone Air Services. The agents provide services such as obtaining the import permit and arranging PEQ, road and air transport, airstalls, engaging accompanying grooms and veterinarians, customs clearance, health certification and blood testing.

The import application is considered by an authorised delegate of a director of quarantine, who is an officer of the Live Animal Import Program of AQIS. In August 2007 the delegates were Dr Ainslie Brown, Dr Don Leelewardana, Ms Yvette Hill and Mr David Ironside. Since August 2007 an additional five technical officers have been authorised.⁸ The AQIS operating procedure ‘Import permits (granting or refusing to grant an import permit)’ sets out administrative processes these officers should follow when making decisions.⁹

An application can be made for the importation of one or a number of horses from a particular country or region. The conditions applying to the import of a particular animal from a particular country or region are accessible to the public on the AQIS website and the ICON (import conditions) database. When an application is made it is almost always the case that the conditions applying to the ‘permanent’ or ‘temporary’ importation of a horse from a particular country or region (and as they appear in the ICON database) are applied without change. Among the conditions are that the horse is vaccinated against equine influenza, that the horse undergo PEQ and has been tested for a variety of diseases, that it is certified free of disease at the time of loading for carriage to Australia, and that it undergo PAQ. Evidence that the conditions have been complied with is required before the horse arrives in Australia and is provided in the form of a health certificate issued by a veterinarian authorised to do so by the veterinary administration of the exporting country.

In order to complete an import permit application it is necessary to identify the PEQ and PAQ premises. In the case of PAQ undertaken at Eastern Creek, the import agents and AQIS agree in advance of each year an annual schedule of horse arrival ‘windows’. The windows are five- or six-day periods in which horses are received into quarantine. The computation of the required quarantine period begins from the time of arrival in the station of the last of the horses. In 2007 there were 14 such periods. Two were for ‘restricted traffic’; the others were for ‘mixed traffic’. The restricted traffic intakes were for stallions, and other horses were not permitted to be imported with them without written

⁸ WIT.AQIS.014.0001 at para. 24.

⁹ DAFF.0001.507.0109.

approval from AQIS and the agreement of the other importers. In 2007 the 'restricted traffic' windows were from 13 to 17 July and from 3 to 8 August.

5.2 Vaccination

The import conditions require vaccination against equine influenza with 'an approved inactivated vaccine', either once as a booster to a certified primary course or twice at an interval of four to six weeks. Proof of vaccination appears on the health certificate, which is one of the documents that must accompany the horse. Another document that usually accompanies the horse, although it is not required, is a horse passport, or 'document of description', which can, but does not always, contain details of vaccination against equine influenza.

In the six consignments received at Eastern Creek in August 2007 some of the horses had been vaccinated once as a booster and others had been vaccinated twice at an interval of four to six weeks. In a number of cases the horses had been vaccinated with different vaccines on the last two occasions they were vaccinated before entering PEQ. Some horses had been vaccinated on the day they entered PEQ; others had been vaccinated fewer than 14 days earlier.¹⁰

5.3 Pre-export quarantine

The primary purpose of PEQ is to keep a horse isolated from other horses in the horse population of the exporting country and to ensure as far as possible that the horse is not diseased and does not become diseased whilst in PEQ and before it travels to Australia. Equine influenza is endemic in most of the countries from which horses are imported. Although, as members of the OIE (the World Organisation for Animal Health), those countries (with the exception of Japan) are required to report outbreaks of equine influenza, the disease is not a reportable disease for them. Advance knowledge therefore that the virus may be spreading through parts of the exporting country is certainly not guaranteed.

Horses are usually required to spend 21 days at a PEQ facility. Some PEQ facilities are government owned. Others are owned or operated by breeders or owners of stud farms and supervised by government; for example, the Fairy King and Prospect farms in Ireland which were used in relation to some of the horses entering Australia in August 2007, are operated by Coolmore Stud.

¹⁰ WIT.INQ.003.0001 at 0005.

It is not uncommon for a consignment of horses to include horses that have undergone PEQ at differing premises. The horses are taken from those premises to the airport of departure, where they mix with other horses. Sometimes horses from one country or region mix with horses from another country or region in the aircraft carrying them to Australia. This happened with horses from the United Kingdom and Ireland that arrived on 7 August 2007.

The evidence in relation to specific PEQ premises is dealt with in detail in Chapter 7. The evidence is that in some cases the premises are separated from surrounding areas by 'two stock proof fences at least five metres apart', as required by the standard import conditions, and that in other cases they are not. In some cases the grooms and others attending the horses daily live in the PEQ area; in other cases they travel into the area each day. During PEQ the horses are also attended by government and private veterinarians, as well as farriers. The evidence is that biosecurity precautions are generally taken by people entering and leaving PEQ premises. There is, however, also evidence that people entering PEQ premises are often not required to, or do not as a matter of practice, shower and change their clothing and footwear before having contact with the horses.

In some PEQ premises the horses are kept in separate barns within the same facility; in others they are not. But, because the horses are usually transported in the same road transport vehicle, or at least carried on the same aircraft (often with horses from other PEQ premises), any steps taken to keep individual horses in the same PEQ premises isolated during a quarantine period are only beneficial if any diseased horse ceases to be contagious before the end of its time there.

During PEQ blood samples are taken from the horses for analysis. The evidence is that arrangements are made for the storage of parts of the samples. It does not reveal the circumstances in which owners or others interested in the horses might obtain part of the sample for analysis. Following the August 2007 outbreak of equine influenza, parts of the samples taken from horses in Ireland and the United Kingdom were made available in Australia for analysis. Samples taken from horses in the United States were not available because they had been disposed of before the request that they be provided was made. This is a less than satisfactory outcome. It is one of the reasons I have made recommendations that samples be held for a defined period, and part of them transported to Australia for testing here if required.

There is no regular inspection of overseas PEQ stations by AQIS or Biosecurity Australia or embassy or consular veterinary staff. In the past, inspections have been made other than in response to an outbreak of disease. Between 1989 and 1993, for example, an AQIS veterinary officer, Dr Patricia Ellis, travelled to and inspected PEQ facilities and transfer facilities at airports

in a number of exporting countries. She also travelled on aircraft with consignments of horses to Australia at that time.

5.4 Transport from the pre-export quarantine facility to Australia

At the completion of PEQ the horses are transported by road to an airport in the exporting country. The import conditions require that the transport vehicles be cleaned and disinfected before the horses are loaded. The horses are placed in airstalls that are then put on the aircraft. Some airports have dedicated areas where livestock can be placed in airstalls. The transport by road from the PEQ facility to the airport and the loading of horses on to aircraft are sometimes supervised by a government official, who in some cases is a veterinarian.

Among the people involved in the loading and transportation of horses to the airport can be drivers, government officials or veterinarians, owners, stud representatives, import agents, and flying grooms who did not care for the horses in PEQ and who did not themselves necessarily undergo a decontamination process before doing so. At this point there is a risk of contamination by those people, as well as by the vehicles in which the horses are transported. At the airport the horses can also come into contact with other people such as airport personnel, as well as representatives of owners, studs, import agents or transport companies. Each can pose a risk of contamination as a result of earlier contact with other horses in the country of export.

The aircraft used to carry the horses are usually cargo aircraft; sometimes they carry other cargo, sometimes not. Either way, it is common for horses from different PEQ premises to be loaded and carried on a single aircraft. On occasions horses from different countries in the same region (for example, the European Union) are carried on the same aircraft. This inevitably exposes each of the horses to a risk of contamination and infection from each of the other horses carried. In this way, the risk of an infected horse being carried to Australia increases with the number of horses carried in an aircraft and the number of different places in which they have undergone PEQ.

The horses are carried one, two or three to an airstall. Shuttle stallions are usually carried in separate airstalls. The horses are cared for by grooms, and sometimes a veterinarian, who travel with them. The number of grooms accompanying each flight depends on the number of seats on the aircraft and the number of horses carried. The number of horses per groom can vary from one to several. There are in practice more grooms for valuable horses such as shuttle stallions, which are also usually accompanied by a veterinarian. The 'mixed traffic' horses are less likely to be accompanied by a veterinarian.

Some air routes to Australia involve two or three stops. Cargo can be loaded on to the aircraft at these places, and sometimes this necessitates moving the horses' stalls around. Even so, the horses and their stalls do not leave the aircraft. The grooms and any veterinarians can leave the aircraft but not the airport, and are most unlikely to come into contact with other horses. Other people can board the aircraft at these places—for example, ground staff, cleaners, caterers or a new crew.

5.5 Arrival in Australia

Aircraft carrying horses, certainly those from places other than New Zealand, always arrive at Tullamarine Airport in Melbourne or at Sydney (Kingsford Smith) Airport. The reason for this is that at present the only post-arrival quarantine stations that accept horses are in Victoria and New South Wales. Sometimes the aircraft offload horses at one place and then continue on to the other, as happened with the 8 August 2007 flight from Japan.

Once the aircraft has come to a stop on the tarmac, customs and quarantine officers and others—including representatives of the import agents, grooms and owners, airport personnel and ground crew—can board the aircraft. The presence of some of these people is not necessary. Some remain on the aircraft and travel in the airstalls with the horses as they are unloaded. Some of the grooms and veterinarians travelling with the horses leave the aircraft before the horses are unloaded and do not take part in the unloading.

The horses and airstalls, which sometimes contain grooms' personal effects and horse equipment, are unloaded from the aircraft on to trolleys. At Tullamarine the trolleys are then pulled by a tug to the area on the tarmac outside the Menzies cargo terminal, where the horses are transferred to road transport vehicles. In Sydney the airstalls are taken to the transfer corral, where the horses are loaded into waiting vehicles. Other horse equipment and luggage might also be carried on the aircraft and unloaded separately from the airstalls.

Among the people on the tarmac at Tullamarine are AQIS officers from the Air Cargo Unit and the Airport Operations Unit, representatives of the import agents, grooms employed by those agents to assist with the unloading, and transport drivers. In contrast with Sydney, there is no AQIS veterinary officer present, a matter the subject of complaint by the Chairman of the Australian Racing Board in writing on 6 May 2005¹¹ warning also of the dangers of equine influenza.

¹¹ AQIS.2002.002.0026 at 0027–0028.

At the airport in Sydney the people who might be present in the transfer facility include the Aero-Care officer responsible for controlling that area on behalf of Sydney Airports Corporation, an AQIS veterinarian, AQIS quarantine officers, representatives of the import agents and owners, grooms, transport drivers, and occasionally public relations people and film crews.

As the horses are loaded into the vehicles their identities are checked in a rudimentary way. No close identity check is made against the markings described on the health certificate until the horse has arrived at the quarantine station.

In Sydney, after the horses are loaded on to the vehicles the doors are sealed by the veterinarian. Seals are not used on vehicles in Melbourne. The vehicles then depart for the Eastern Creek or Spotswood Quarantine Stations.

The AQIS veterinary officer at Sydney Airport is given the original veterinary health certificate for each horse and, in some cases, copies of import permits, transit permits, transit certificates and laboratory certificates. The officer might also be given a copy of the horse's passport. The original veterinary health certificate and copies of laboratory and some other certificates are retained by AQIS. The other documents are returned to the import agent.

The veterinary health certificate is sometimes signed and dated before the date on which the horse is loaded on to the aircraft. Notwithstanding this, some health certificates contain statements about events that have not happened or cannot be attested to at the time the certificate is signed—for example, about the condition of the aircraft compartment to be occupied by the horse when it is loaded, and about the horse's health and fitness to travel at the time of loading. In some cases a separate certificate of inspection deals with some of these matters. The health certificate and other documents retained by AQIS are checked against the import conditions, but that occurs after the horse has arrived at the quarantine station.

At Tullamarine the import agents and quarantine officers clean away hay and horse waste from the tarmac. There is no procedure for disinfecting the transportable ramp used to load the horses. The empty airstalls are moved to an isolated storage area where they are cleaned and disinfected by a contractor engaged by the import agent. This process is monitored by AQIS.

In Sydney the transfer area is cleaned by the Aero-Care officer, and any waste is placed in yellow quarantine bins. The empty airstalls are taken to a compound at the airport. The base of the stalls is wrapped in plastic and, after inspection by AQIS, the stalls are carried by semi-trailer to premises in Camellia, where they are cleaned and disinfected. After further inspection by AQIS the airstalls are returned to the airport for further use.

5.6 Transport to Eastern Creek and Spotswood

The transport vehicles are usually cleaned and disinfected before their arrival at the airport. When loaded, they proceed directly to the quarantine station. There they are driven into the horse enclosure and the horses are unloaded under AQIS supervision. Grooms or others lead each horse to its stall, which is allotted in accordance with a plan prepared and agreed in advance. The transport vehicles are then cleaned and disinfected under AQIS supervision.

5.7 Post-arrival quarantine

Each imported horse must undergo PAQ at Eastern Creek, Spotswood or other AQIS-approved premises for no fewer than 14 days. While in quarantine the horses are cared for by grooms engaged by the importers, studs or owners. As noted in Chapter 4, at Eastern Creek the grooms live in quarters in the horse enclosure; there is no on-site accommodation for grooms at Spotswood, and most of the grooms live nearby.

During shuttle stallion intakes at Eastern Creek, food is supplied to the grooms daily by caterers who enter the horse enclosure. At both Eastern Creek and Spotswood grooms are given keys and swipe cards, enabling them to enter and leave the stations at will. There are more grooms and carers for the shuttle stallions than there are for the general horses.

While in quarantine the horses are attended by private veterinarians and farriers. At Eastern Creek an AQIS veterinarian inspects the horses and collects reference blood samples usually within 48 hours of arrival. At Spotswood an AQIS veterinarian inspects the horses within two or three days of their arrival, but reference blood samples are collected separately by a private veterinarian.

At the completion of PAQ an AQIS officer issues a 'Release from quarantine'. The relevant importers are advised in advance of the scheduled date and time of release, so that transport can be arranged. On the day of release the vehicles collect the horses from the quarantine station for transport to their destination. The release of the horses is supervised by AQIS. With the exception of pregnant mares, once the horses have left the quarantine station they are free to circulate in the Australian horse population without restriction. Pregnant mares must be kept apart from other horses until they are released from quarantine surveillance.

5.8 Policy development before August 2007

Quarantine policies for horses have been developed by Biosecurity Australia and its predecessors over time. Before October 2000 policy development was the function of the Animal Quarantine Policy Branch of the AQIS. Between October 2000 and December 2004 it was the function of Biosecurity Australia, which came within the Market Access and Biosecurity Division of the Department of Agriculture, Fisheries and Forestry. Since December 2004 it has been the responsibility of Biosecurity Australia, in its capacity as a separate prescribed agency.

The documents giving effect to the quarantine policies for the importation of horses from specific countries or regions are variously described as ‘conditions for importation’¹², ‘quarantine requirements for importation’¹³ or ‘amended quarantine requirements for importation’.¹⁴ Since at least 1995 these conditions or requirements, when published, have been accompanied by a ‘policy memorandum’ summarising the new or revised conditions and briefly explaining the reasons for them.

Import permits are granted by AQIS subject to satisfaction of the conditions. Different conditions apply according to whether the permit is for temporary or permanent importation of horses or for the return of Australian horses after they have been racing overseas. ‘Permanent importation’ is importation for more than two months or for breeding purposes, in which the case the period the horse is to remain in Australia is irrelevant. ‘Temporary importation’ is importation for less than two months where the horse is not imported for breeding purposes. Horses tend to be imported temporarily when they are to be used for competition such as racing or for participation in other kinds of equestrian contests.¹⁵

5.9 Import conditions relevant to equine influenza, August 2007

Australia’s quarantine policies for horses are specific to each country or region of export and are based on the equine health status of that country or region. The following are among the diseases presenting a risk to Australian horses:

- (a) African horse sickness

¹² DAFF.0001.564.0005.

¹³ DAFF.0001.564.0017.

¹⁴ DAFF.0001.564.0058; T2896 (Martin).

¹⁵ WIT.BIOS.003.0001 at para. 24.

- (b) contagious equine metritis
- (c) equine encephalitides
- (d) equine infectious anaemia
- (e) equine influenza
- (f) equine piroplasmosis
- (g) equine viral arteritis
- (h) Japanese encephalitis
- (i) surra
- (j) West Nile virus.

Before the outbreak of equine influenza in Australia the countries or regions that could export horses to Australia were the first 15 member states of the European Union¹⁶, Canada, Fiji, Hong Kong, Japan, Macau, New Caledonia, New Zealand, Norfolk Island, Norway, the United Arab Emirates, the United States, Singapore and Switzerland. At that time the ‘policies’ for temporary and permanent importation of horses from the United Kingdom, Ireland, the United States and Japan were contained in and constituted by the following documents:

- (a) the United Kingdom and Ireland—Animal Quarantine Policy Memorandum 2000/10 dated 28 January 2000, to which were attached separate requirements for the permanent and temporary importation of horses from member states of the European Union¹⁷
- (b) the United States—Animal Biosecurity Policy Memorandum 2003/04 dated 27 February 2003, to which were attached separate quarantine requirements for the permanent and temporary importation of horses from the United States, effective from 1 May 2003¹⁸

¹⁶ Austria, Belgium, Denmark, Finland, France, Germany, Greece, Republic of Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, the United Kingdom.

¹⁷ DAFF.0001.564.0080–0106; After January 2000 there were temporary suspensions of imports of horses from the United Kingdom and other member countries of the European Union and interim conditions that later permitted importation, in each case to take into account outbreaks of foot-and-mouth disease in 2001 and 2007: DAFF.0001.564.0117. None of those conditions needs to be considered in the current context.

¹⁸ DAFF.0001.564.0407–0428.

- (c) Japan—Animal Quarantine Policy Memorandum 2000/15 dated 2 March 2000, to which were attached separate quarantine requirements for the permanent and temporary importation of horses from Japan.¹⁹

In each case the attached requirements include the following specific conditions to meet the risk of equine influenza:

- (a) In the two months immediately before export the horse must have been continuously resident in the country of origin in an establishment or establishments in which no case of equine influenza had occurred during the previous three months. In the case of the permanent importation of horses from Japan, certification was also required that there had been no case of equine influenza reported in Japan in the three months before the date of certification.
- (b) The horse had undergone a minimum period of PEQ in the country of origin in premises that meet specified AQIS standards. That period was 21 days for permanent importation and 14 days for temporary importation.
- (c) During the four months before PEQ (in the case of Japan, six months) the horse was vaccinated against equine influenza using ‘an approved inactivated vaccine’ either once as a booster to a certified primary course or twice at an interval of four to six weeks.
- (d) The horse had undergone PAQ in a government animal quarantine station or other approved premises for a minimum of 14 days. In the case of temporary importation of horses, AQIS standards for the ‘approved PAQ premises’ were specified. In the case of permanent importation, no standards were specified for approved PAQ premises.

The AQIS-specified standards for the PEQ premises were contained in an appendix to the conditions for permanent and temporary importation. The standards deal with the location of the premises, the facilities at the premises, and the premises’ operation. Specifically, they required the following:²⁰

- (a) that there be no other horses held or exercised within 100 metres of horses on the premises unless specifically authorised by AQIS
- (b) that the premises have facilities for veterinary examination and collection of samples and for segregation and isolation of sick horses or those suspected to be sick

¹⁹ DAFF.0001.564.0244–0268.

²⁰ Not all of these conditions were incorporated into the import permits for the 2007 consignments. See, for example, IRT.0001.003.0238; IRT.0001.003.0258; IRT.0001.003.0334; IRT.0001.004.0088.

- (c) that the premises have stables constructed in such a way that they can readily be cleaned and disinfected
- (d) that the premises have an area for cleaning and disinfecting vehicles that is well separated from the stables, holding pens and loading area and facilities for the safe loading and unloading of horses
- (e) that the stables, yards, fences, and feeding and watering facilities be constructed in such a way that the horses are protected from injury and that their other welfare needs are met
- (f) that the stables be cleaned and disinfected and various yards and paddocks be cleaned to the satisfaction of an ‘official veterinarian’ before the start of PEQ²¹
- (g) that the PEQ be supervised by an official veterinarian and that during the quarantine period the premises be occupied only by horses of the export consignment unless otherwise agreed by the supervising official veterinarian and AQIS
- (h) that all equipment used in the feeding, handling and treatment of the horses in PEQ be new or cleaned, be disinfected before use, and be used only in the premises for the duration of the PEQ
- (i) that personnel attending the horse don outer clothing and footwear used exclusively in the premises during PEQ and wash their hands before handling the horses
- (j) that entry to the premises be prevented unless specifically authorised by the supervising official veterinarian and that all visitor entries be recorded
- (k) that vehicles for transporting horses from the PEQ premises to the port of embarkation be cleaned and disinfected to the satisfaction of the official veterinarian before the horses are loaded
- (l) that the owner or person in charge of the PEQ premises not be the owner or vendor of any of the horses unless specifically authorised by AQIS.²²

As noted, the AQIS standards for ‘approved PAQ premises’ were specified as conditions for temporary importation of horses but not for permanent importation. The standards were contained in an appendix to the requirements or conditions set out in the Biosecurity Australia ‘policies’.²³ The specified

²¹ That is, a veterinarian authorised by the relevant veterinary administration of the exporting country.

²² For example, DAFF.0001.564.0081 at 0089–0090.

²³ See, for example, DAFF.0001.564.0094 at 0102–0103.

conditions apply to both government animal quarantine stations and any other approved PAQ premises.²⁴ Although the conditions relating to permanent importation did not specify any AQIS standards for approved PAQ premises, it was apparently AQIS's and Biosecurity Australia's understanding that the same requirements applied to both temporary and permanent importation. The fact that separate import permits were issued and were subject to differing conditions depending on whether the importation was permanent or temporary was an unsatisfactory state of affairs if it was intended that the AQIS standards for PAQ premises were to be applied in both circumstances. The situation was remedied in the revised requirements issued after the outbreak of equine influenza.²⁵

Chapter 3 notes that the Terrestrial Animal Health Code contains model international veterinary certificates for horses and for the international movement of competition horses.²⁶ The conditions of import require that each horse be accompanied by an animal health certificate that conforms to one of the OIE certificates and is signed by an official veterinarian, being a veterinarian authorised by the relevant veterinary administration of the exporting country to perform animal health and/or public health inspections of commodities and to provide certification in conformity with the provisions of the Terrestrial Code.

The animal health certificate is required to attest to matters (a), (b) and (c) just listed in relation to PEQ premises (that is, no other horses held or exercised within 100 metres, and so on) as well as to each of the following matters:

- (a) that the horse was examined by an official veterinarian 24 hours before leaving the PEQ premises and was found to be free of evidence of infectious or contagious disease and fit to travel
- (b) that the vehicle for the transport of the horse to the port of export was cleaned and disinfected before the horse and any other animals of the same consignment were loaded
- (c) that during transport to the port of export the horse had no contact with horses that were not of the same certified health status
- (d) that the compartment of the aircraft or vessel to be occupied by the horse and all removable, equipment, penning and containers, including loading ramps, had been satisfactorily cleaned and disinfected before loading

²⁴ T2931 (Martin).

²⁵ T2932–T2933 (Martin).

²⁶ Terrestrial Animal Health Code (2007), part 4, section 4.1, appendixes 4.1.4, 4.1.5.

- (e) that at the time of loading on to the aircraft or vessel the horse was healthy and fit to travel.

There may be a ‘primary course’ and a ‘booster course’ of vaccination. The primary course comprises at least two doses, and after that a horse can receive annual vaccinations that are boosters to the primary course. The conditions current at August 2007 permitted vaccination, either once as a booster to a certified primary course or twice at an interval of four to six weeks. In either case vaccination had to take place during the four months before PEQ (except in the case of Japan, for which the period was six months).

The various references to vaccination against equine influenza using an ‘approved inactivated vaccine’ or an ‘inactivated vaccine’ are references to vaccines approved for use in the exporting country (registered or licensed by the government or appropriate authority in that country for the use intended). Neither Biosecurity Australia nor AQIS approves vaccines for use in another country. The reference to an ‘inactivated’ vaccine is to a ‘killed’ vaccine—as distinct from a ‘live’ vaccine, which contains live attenuated equine influenza virus.²⁷ As is apparent from the discussion that follows, the import requirements introduced after the August 2007 outbreak now refer to vaccination ‘not using a vaccine containing live equine influenza virus’. That description allows the use of inactivated vaccines or vaccines containing a different live virus that contains antigens derived from equine influenza—for example, the canary pox–vectored vaccine.²⁸

5.10 Revised import conditions

After the equine influenza outbreak in August 2007 a working group was formed within the Consultative Committee on Emergency Animal Disease to examine existing policy for the importation of horses with respect to equine influenza. The members of the working group were Dr Robyn Martin, Dr Patricia Ellis and Dr Andrew Cameron. Dr Martin was General Manager of the Animal Biosecurity Branch in Biosecurity Australia. Dr Ellis is eminently qualified and experienced in relation to the disease risks posed by the importation of horses into Australia—in particular, the risk equine influenza poses.²⁹ Dr Cameron is Deputy Chief Veterinary Officer of Victoria.³⁰ The working group recommended that changes be made to the existing policy. The recommendations were endorsed by the Consultative Committee and were

²⁷ CORR.0005.002.0056 at 0058.

²⁸ CORR.0005.002.0056 at 0058.

²⁹ WIT.PME.001.0001 at paras 1–10, 43, 45.

³⁰ T2937 (Martin).

subsequently adopted by Biosecurity Australia and issued to AQIS as recommendations described as ‘Interim quarantine measures for the importation of horses’ under Biosecurity Australia Advice 2007/21 dated 28 September 2007.³¹

These interim quarantine measures were also introduced for temporary and permanent imports of horses from the United Arab Emirates, Macau, Hong Kong and Singapore. Measures for the United States were issued on 9 November 2007.³² The measures for all the countries and regions concerned were also amended in accordance with the amendments announced on 6 December 2007.³³ A number of amendments to the policy as it existed in August 2007 were made:

- (a) *Equine influenza vaccination.* A horse must have been vaccinated regularly according to the vaccine manufacturer’s recommendation since receiving a primary vaccination course and, in addition to its current equine influenza vaccination, it should receive a booster vaccination between 14 and 21 days before entering PEQ.
- (b) *Diagnostic testing for equine influenza in PEQ and PAQ.* A horse must be tested by means of a real-time polymerase chain reaction test (known as an RT-PCR or a qPCR test)³⁴ twice in PEQ seven to 10 days apart, the second test being within four days of departure, and should also be tested by qPCR on swabs taken five days after the last horse arrives in PAQ. For the PEQ test an antigen-capture ELISA test was specified as the alternative.
- (c) *Duration of the PAQ period.* The PAQ period was extended from 14 to 21 days for horses imported permanently if they had undergone PEQ in different premises and become intermingled as one consignment on an aircraft or in the PAQ premises.
- (d) *Operation of quarantine premises.* Recommendations were made for the strengthening of various operational guidelines pertaining to PEQ and PAQ. This included the following
 - (i) Operations and procedures in PEQ were required to be documented and, consistent with a HACCP (Hazard Analysis Critical Control Point) approach, be capable of being audited.

³¹ DAFF.1000.008.0084.

³² DAFF.INQ.006.0001; DAFF.INQ.007.0001.

³³ DAFF.INQ.003.0001.

³⁴ T4189–T4190 (Newton).

- (ii) During PEQ each horse was required to have its rectal temperature taken and recorded twice daily, and the records were to be made available to AQIS on request.
- (iii) The AQIS standards for PAQ were specified for both permanent and temporary importation conditions.
- (iv) All procedures associated with the operation of PAQ premises were to be documented and, consistent with a HACCP approach, subject to audit. This included operating procedures for veterinarians, handlers and visitors.
- (v) Any personnel attending the horses were required to shower when arriving at the PAQ premises and to shower and change their clothing and footwear before leaving.
- (vi) On completion of PAQ, any equipment used in feeding, handling and treating a horse had to be disinfected before removal from the premises.³⁵
- (vii) Each horse must have its rectal temperature measured and recorded on arrival in PAQ, again within four hours, and then twice daily thereafter and must be subjected to a qPCR test if the rectal temperature is over 38.5°C.
- (viii) Within 24 hours of a horse's arrival in PAQ a blood sample for reference serum must be collected from it and despatched for storage.

In Advice 2007/21 dated 28 September 2007 Biosecurity Australia also advised that AQIS would make arrangements with the competent authority of the exporting country for PEQ premises to be inspected before the first consignments were exported from any country. Those inspections were to be done by veterinary counsellors posted in Brussels and Washington.³⁶

On 6 December 2007 Biosecurity Australia released Biosecurity Advice 2007/23, providing further amendments to the interim measures for the importation of horses from member states of the European Union.³⁷ The amendments dealt with two matters:

- (a) *Pre-export equine influenza vaccination*. This amendment was designed to clarify the timing of the vaccinations. During the six months before the start of PEQ a horse must be vaccinated at least twice. The first vaccination must be between six and two months before the start of PEQ and must have

³⁵ Interim quarantine measures dated 28 September 2007: DAFF.0001.564.0123.

³⁶ T2945–T2946 (Martin).

³⁷ DAFF.INQ.003.0001; DAFF.INQ.004.0001; DAFF.INQ.005.0001.

been either a booster to a primary course or a second vaccination to a primary course. The second vaccination must be given between 21 and 14 days before the start of PEQ.

- (b) *Diagnostic testing.* An additional qPCR test must be conducted within 24 hours of a horse's arrival in PAQ. This is in addition to the qPCR test to be carried out five days after the last horse arrives in PAQ.

As is apparent from the discussion that follows, a number of the measures introduced in September 2007 had previously been raised by interested parties for AQIS's or Biosecurity Australia's consideration. It does not reflect well on the two organisations' standards and performance that these measures were not introduced before the August 2007 outbreak.

5.11 The absence of any formal risk analysis

The quarantine policies just described emerged over time, and the conditions or requirements had been varied to take account of outbreaks of particular diseases or revised assessments of risks attaching to those diseases. Most importantly, no formal risk analysis was carried out by Biosecurity Australia, or any of its predecessors, in relation to the importation of horses, and there was no single document identifying the diseases and risks associated with such importation and describing how they are to be dealt with by the imposition of import conditions with a view to achieving the outcome that the 'level of quarantine risk'³⁸ is sufficiently low to enable the importation to proceed consistently with Australia's conservative but not zero-risk approach to animal and plant biosecurity risks.³⁹

Biosecurity Australia's risk assessments can be conducted as formal import risk analyses in relation to particular goods or animals imported from specific countries or regions or they can be conducted more generally. The formal risk analyses can be either regulated or non-regulated. The regulated ones should be conducted in accordance with administrative processes that have been formulated and published by DAFF and Biosecurity Australia. Details of the first such process were published in the 1998 AQIS *Import Risk Analysis Process Handbook*. The second handbook, the *Import Risk Analysis Handbook*, was published in 2003. In September 2007 DAFF published a revised

³⁸ Section 5D of the *Quarantine Act 1908*.

³⁹ T2898–T2899 (Martin).

handbook, the *Import Risk Analysis Handbook 2007*.⁴⁰ That handbook draws the distinction between regulated and non-regulated import risk analyses.⁴¹

One consequence of the absence of any formal import risk analysis, regulated or non-regulated, in relation to horses is that for the AQIS officers exercising delegated authority to grant import permits there is no document that explains why particular conditions are considered necessary for dealing with the risks presented by a particular disease or diseases.⁴²

Another consequence of the absence of any such formal import risk analysis is that there has never been any rigorous review of the policy that has evolved since the early 1990s, so as to identify those conditions that are no longer applicable, those that should be amended, and any additional conditions that should be included.⁴³

Dr Martin, who is, as noted, General Manager of the Animal Biosecurity Branch of Biosecurity Australia, has since about 2000 been managing the sections of Biosecurity Australia and its predecessors that deal with policies for the importation of horses.⁴⁴ She agreed that there should be a non-regulated but formal risk analysis conducted in relation to horses and that it should identify the disease risks (including equine influenza) and their consequences and explain how those risks and their consequences are sufficiently managed by the imposition of conditions.⁴⁵

Dr Mike Nunn, whose role as Principal Scientist Animal Biosecurity in Biosecurity Australia requires him to provide scientific policy advice on animal quarantine and disease control⁴⁶, also agreed that such an exercise would be 'useful' for no fewer than three reasons. First, it would provide a rigorous review of the import conditions and their adequacy in the light of current scientific and other information. Secondly, it would produce and record in one place the results of an analysis of the disease risks associated with importation and how they are met by the import conditions. Thirdly, it would provide a reference point recording current policy, which could then be the subject of regular review.⁴⁷

⁴⁰ AQIS.2001.002.0580 at 0082.

⁴¹ Clause 4.1 of the *Import Risk Analysis Handbook 2007*: AQIS.2001.002.0580 at 0091.

⁴² T2899 (Martin).

⁴³ T2934 (Martin).

⁴⁴ T2893 (Martin).

⁴⁵ T2934 (Martin).

⁴⁶ T3257–T3258 (Nunn).

⁴⁷ T3307–T3308 (Nunn).

The suggestion that a formal import risk analysis should have been carried out does not seem to me to be radical or anything other than obvious. It was an exercise that could easily, and should, have been done.

Recommendation

I recommend that Biosecurity Australia undertake and complete within 12 months a non-regulated but formal import risk analysis relating to the importation of horses from the countries and regions from which Australia currently permits such importation, and make such recommendations for any changes to policies for importation as are warranted by its risk analysis to the officer responsible for the importation of horses and the Executive Director of AQIS.

I recommend that Biosecurity Australia review that formal import risk analysis at least once every two years to take into account any relevant developments in scientific knowledge—specifically testing methods, vaccines, vaccination procedures and other matters that affect biosecurity. Reports on the reviews should be provided to the officer responsible for the importation of horses and should contain recommendations for any necessary changes to policies for importation.

5.12 Formulation of policy: the relationship between AQIS and Biosecurity Australia

5.12.1 The work of Biosecurity Australia

Mr John Cahill, Chief Executive of Biosecurity Australia, described the organisation's work as having five main elements, as noted in Chapter 3. Three of those elements are relevant here:

- (a) conducting import risk analyses
- (b) providing biosecurity policy advice and recommendations as a result of its import risk analyses
- (c) providing to AQIS day-to-day advice on biosecurity matters, including the implementation of biosecurity policy and the consideration of more specific applications for import permits.⁴⁸

⁴⁸ WIT.BIOS.001.0001 at para. 6.

5.12.2 The absence of requirements for regular and systematic reviews of policies

At present there is no protocol or procedure that regulates the way AQIS should have contact with Biosecurity Australia for the purpose of obtaining advice or whether, and in what circumstances, Biosecurity Australia should initiate advice to AQIS without any request for that advice and review existing policies and import risk analyses.⁴⁹ The current position in relation to the review of existing policies is that if Biosecurity Australia becomes aware of import conditions it considers should be reconsidered or are inadequate it will initiate the giving of advice either to AQIS or to the Director of Animal and Plant Quarantine.⁵⁰

Dr Nunn agreed that at present quarantine policy is reviewed whenever there is a change in the science or a change in the disease situation overseas or some other change occurs that merits a review of policy.⁵¹ Dr Martin summarised the position in a similar way: she agreed there was no arrangement between AQIS and Biosecurity Australia that requires the latter to take an initiating or active position in relation to the imposition of conditions, as distinct from reacting to requests for information or to emerging information about a disease or risk that comes to the organisation's attention.⁵²

The fact that there was a need to establish mechanisms for ensuring regular and systematic reviews of quarantine policies and procedures as between Biosecurity Australia and AQIS was partly recognised in late 2005, when a project was initiated to track electronically requests for advice from AQIS to Biosecurity Australia and the responses to those requests.⁵³ A subsequent Science Capability Review conducted within DAFF recommended that the links between AQIS, Biosecurity Australia and the Product Integrity Animal and Plant Health Division be improved.⁵⁴ As a result, one of the Deputy Secretaries of DAFF, Mr Stephen Hunter, was given the task of coordinating the pre-border, border and post-border elements of the quarantine activities managed by AQIS, Biosecurity Australia and Product Integrity Animal and Plant Health.⁵⁵ Also introduced were regular meetings between Mr Hunter, Mr Cahill as the Chief Executive of Biosecurity Australia, and the executive managers of AQIS and the Product Integrity Animal and Plant Health Division, with a view to coordinating the activities of each of those areas.⁵⁶ Regrettably,

⁴⁹ T3993 (Cahill).

⁵⁰ T3993 (Cahill).

⁵¹ T3305 (Nunn).

⁵² T2917 (Martin).

⁵³ Memo 'Quarantine management—departmental coordination': DAFF.0001.081.0006.

⁵⁴ See, for example, DAFF.0001.200.0001, DAFF.0001.200.0018.

⁵⁵ DAFF.0001.200.0001.

⁵⁶ WIT.DAFF.001.0001 at para. 37.

the evidence suggests that these meetings involved only coordination matters at a very general level.⁵⁷

In my view, the absence of any requirement that Biosecurity Australia conduct regular and systematic reviews of quarantine policies—principally in the form of import conditions—has had the consequence that the organisation does not respond sufficiently promptly or rigorously when questions arise as to whether policy should be revised or changed. Two examples suffice: the first relates to the introduction of screen testing of horses for equine influenza while they are in PEQ and PAQ; the second relates to the specification of particular equine influenza vaccines that should be used.

In its most recent advices, issued in September 2007, Biosecurity Australia recommended for the first time, and following the review conducted by the Consultative Committee on Emergency Animal Disease working group, that there be screen testing for equine influenza in PEQ and PAQ.⁵⁸

The evidence before the Inquiry was that, following the outbreak of equine influenza in Hong Kong in 1992, the Hong Kong Jockey Club, which is responsible for managing the day-to-day PEQ and PAQ arrangements for horses entering or leaving Hong Kong, introduced a requirement that there be equine influenza screen testing done in PAQ using a qPCR or NP-ELISA test or a rapid immuno-assay test such as Directigen Flu-A or ESPLINE. The Directigen Flu-A test had been used since 1993 but has recently been replaced as the Jockey Club's preferred test by the ESPLINE A&B-N test because the latter is easier to perform.⁵⁹

The question whether similar screening tests should be introduced in Australia was raised in March 1995. At that time Dr Bernard Robinson, the Principal Veterinary Officer in the Quarantine Policy Branch of AQIS, wrote to Dr David Powell of the Equine Research Center in Kentucky, an OIE reference laboratory, asking whether he would recommend routine use of the Directigen assay as used by the Hong Kong Jockey Club.⁶⁰ In his response of 10 March 1995⁶¹ Dr Powell said he strongly advocated the use of Directigen as a means of screening horses during PEQ and PAQ, and '... I would *strongly* recommend the test be performed within 24 hours of horses arriving in Australia as well as testing just prior to release from quarantine'. Dr Powell's recommendation was not heeded, although the evidence suggests that Dr Robinson might have thought the Directigen test could be used for

⁵⁷ T3996–T3997 (Cahill).

⁵⁸ T2910–T2911 (Martin).

⁵⁹ WIT.HKJC.001.0001 at paras 3, 10 (Stewart).

⁶⁰ DAFF.INQ.011.0001.

⁶¹ DAFF.INQ.009.0001.

screening rather than merely as a diagnostic tool after a horse has developed clinical signs of equine influenza.⁶²

The question whether horses should be routinely tested whilst in PAQ was again raised at Biosecurity Australia in 2003, in communications with the New Zealand Ministry of Agriculture and Fisheries. At that time the New Zealand authorities were debating whether to introduce testing of all horses by qPCR test while they were in PAQ and possibly also in PEQ. One of the difficulties the New Zealand authorities had was that a large percentage of the horses imported into New Zealand come through Australia.⁶³ For that reason the New Zealand authorities inquired whether Biosecurity Australia would introduce such testing of horses in PAQ in Australia. Biosecurity Australia did not act on the suggestion that there be testing in PAQ, describing it internally as being ‘excessive to the AQIS import permit conditions’.⁶⁴

Dr Martin’s explanation of why a qPCR test or an NP-ELISA test was not introduced was that she considered the PEQ, PAQ and other measures then taken adequately ‘addressed the risk’.⁶⁵ She stated that at the time the requirement was ‘technically unjustified’. The evidence suggests that Biosecurity Australia did not rigorously examine whether there was a need to introduce such tests.⁶⁶ It regarded the Directigen test as a useful diagnostic test.⁶⁷ It considered the NP-ELISA test more sensitive but did not recommend that it be used. It was not familiar with the qPCR test and its sensitivity, although that test was being suggested by the New Zealand authorities. It did not develop expertise in relation to qPCR testing at that time and did not then consider whether such a test should be introduced for screening purposes. Dr Hibbert, who was acting Manager of the Live Animal Imports and Post-Entry Animal Quarantine Programs at various times from January 2001, agreed that with the benefit of hindsight the suggestion that screening tests be introduced should have been investigated in 2003, rather than simply rejected.⁶⁸

The second example concerns Biosecurity Australia’s policy on vaccination. With one exception, in 1995 (when the import conditions required that the vaccine incorporate the Suffolk/89 antigen⁶⁹), neither Biosecurity Australia nor any of its predecessors has specified that a vaccine contain any particular strain

⁶² DAFF.0001.094.0203.

⁶³ T3713 (Hibbert).

⁶⁴ DAFF.0001.756.0703.

⁶⁵ T2918 (Martin).

⁶⁶ T3715 (Hibbert).

⁶⁷ T2911 (Martin).

⁶⁸ T3715 (Hibbert).

⁶⁹ DAFF.0001.564.0017.

or representative strain.⁷⁰ Biosecurity Australia has been aware that some vaccines might not provide adequate protection or are less effective than others. It has also been aware of various OIE recommendations that vaccines include representatives of currently circulating strains.

For example, in 1995 Dr Jenny Mumford of the Animal Health Trust recommended to Dr Robinson that Australia specify a vaccine with an ‘up to date’ or ‘epidemiologically relevant’ strain because older strains were less effective in preventing virus shedding.⁷¹ At the same time, Dr Powell advised in response to a similar request that a vaccine containing the Suffolk/89 antigen had been shown to be effective in reducing virus shedding when compared with vaccines containing antigens derived from pre-1989 isolates.⁷² That suggestion no doubt resulted in the specification of that strain in the 1995 policy. In November 1995, however, new conditions were issued that changed the vaccination requirement from a vaccine incorporating that strain to ‘... using an approved vaccine ...’,⁷³

In 2005, in response to comments from Mr Barry Smyth, President of the Australian Horse Industry Council Inc., that currently available vaccines did not contain ‘epidemiologically relevant strains’, Biosecurity Australia noted that it was ‘aware that many currently available vaccines, including Duvaxyn IE Plus, may not provide adequate protection’.⁷⁴ Despite this being the view of Biosecurity Australia at the time, it still did not recommend or require by any import conditions or otherwise that vaccines containing out-of-date strains not be used⁷⁵ or that vaccines that were regarded as less efficacious than other commercially available ones not be used.⁷⁶

Dr Martin proffered two reasons why neither of these courses was adopted. They were that the currently available vaccines did not contain the most up to date strains⁷⁷ and that vaccination was only one of a number of measures taken to minimise the risk of horses with equine influenza being introduced into the general Australian horse population.⁷⁸ Neither of those reasons provides a satisfactory explanation why, if vaccines containing the most up to date strains were not available, Biosecurity Australia did not nevertheless identify vaccines

⁷⁰ T2903 (Martin).

⁷¹ DAFF.INQ.008.0001.

⁷² Letter, 10 March 1995: DAFF.INQ.009.0001.

⁷³ DAFF.0001.564.0034.

⁷⁴ DAFF.0001.091.0347.

⁷⁵ T2903 (Martin).

⁷⁶ T2904–T2910 (Martin).

⁷⁷ T2902 (Martin).

⁷⁸ T2904 (Martin).

that should not be used, either because they contained out-of-date strains or because they were regarded as less effective than others that were available.⁷⁹

Recommendations

I recommend that the officer responsible for the importation of horses arrange for Biosecurity Australia to conduct within six months, an inspection and review of the process of horse importation from the time horses arrive in Australia until the completion of their post-arrival quarantine in order to:

- (a) identify all relevant biosecurity risks
- (b) review the standard operating procedures for clearance and quarantine of horses, as issued on 5 December 2007
- (c) recommend any changes that should be made to those operating procedures, after taking account of my other recommendations and comments in this report.

I recommend that the officer responsible for the importation of horses arrange for Biosecurity Australia to review, at least once every two years, the operating procedures to ensure that they adequately identify and manage the risk of entry and spread of equine influenza associated with the importation of horses into Australia. The outcome of each such review should be the subject of a written report and recommendations to the person responsible for the importation of horses and the Executive Director of AQIS. A determination should then be made as to whether any, and if so what, changes should be made to the operating procedures.

5.12.3 Uncertainty about Biosecurity Australia's role in relation to operational and procedural matters

Between AQIS and Biosecurity Australia there is also uncertainty about the role Biosecurity Australia has in relation to AQIS operational and procedural matters.⁸⁰ This lack of clarity is illustrated by reference to the import conditions current at August 2007 and the subsequently amended measures introduced in September 2007.

The conditions deal with requirements for PEQ and PAQ, but they do not do so exhaustively. Biosecurity Australia has never conducted a structured, comprehensive investigation or inquiry in order to understand the sequence of activities and events that occur from the time horses enter PEQ until the time they are released into the general Australian horse population at the end of

⁷⁹ Cf T2903–T2904, T2907–2908 (Martin).

⁸⁰ T2929, T2939 (Martin).

PAQ so as to identify the various risks that arise and to formulate biosecurity measures to respond to those risks.⁸¹

The current position in relation to PEQ premises is that they are approved by the veterinary administration of the country of export. AQIS does not keep a list of the premises.⁸² Although some of them were visited in the context of the outbreak of foot-and-mouth disease in the United Kingdom in 2001⁸³, there is no requirement that premises be inspected and approved by Biosecurity Australia or AQIS and be subsequently reviewed and checked from time to time.⁸⁴ In addition, although Biosecurity Australia imposes some requirements for what should happen in the exporting country, it has never examined what happens to identify the risks of contamination to which horses are subject from the time they enter PEQ until they are loaded on to an aircraft for carriage to Australia.⁸⁵ Dr Nunn and Dr Martin agreed that for Biosecurity Australia to deal with these risks properly it should first carry out inspections and make inquiries to satisfy itself of what happens in PEQ and in the period before the horses are loaded for carriage.⁸⁶

Recommendation

I recommend that premises be used for pre-export quarantine only if they have been approved by the officer responsible for the importation of horses and only if they have adequate biosecurity precautions that are the subject of documented procedures that can be audited. The import conditions for horses shall include a requirement that pre-export quarantine premises have been so approved.

The position is the same in relation to the time between the horses' arrival in Australia and their release from PAQ. Before August 2007 Biosecurity Australia was not involved in advising on the risks posed during the arrival of the horses at an airport and their road transportation to a quarantine station. Nor had it ever been asked to consider whether any operating procedures or work instructions in existence at the quarantine stations were adequate for confronting biosecurity risks. Dr Nunn said Biosecurity Australia had never been asked to perform any of those tasks.⁸⁷ He agreed that Biosecurity Australia or some other sufficiently qualified body should review the entire revised operating procedure issued by AQIS in December 2007.⁸⁸ In the period

⁸¹ T2930, T2939–T2940 (Martin).

⁸² T2616 (Brown).

⁸³ T2600–T2601, T2627 (Brown).

⁸⁴ T2627 (Brown).

⁸⁵ T2927, T2931 (Martin).

⁸⁶ T3295, 3300 (Nunn); T2930–T2931 (Martin).

⁸⁷ T3296 (Nunn).

⁸⁸ T3305 (Nunn).

before December 2007 Dr Nunn had been asked to consider draft work instructions in relation to activities at airports and in the transport of horses to quarantine stations, but he was not asked to look at any work instructions relating to what happened at the quarantine stations.⁸⁹ I do not think that the need for these should have become apparent only as a result of the equine influenza outbreak or an inquiry into it.

Recommendation

I recommend that the officer responsible for the importation of horses arrange for Biosecurity Australia or another qualified body to inspect and review the activities and events that occur from the time horses enter pre-export quarantine until the time they arrive at an airport in Australia, in order to identify any biosecurity risks and recommend any necessary changes to import conditions or other requirements. This inspection and review shall be performed without delay for each country or region from which horses are imported to Australia, and it should take account of my other recommendations and comments in this report.

5.13 Inadequacies of the policies and import conditions as currently formulated

5.13.1 Vaccination

Many of the vaccines that are currently available still contain the H7N7 sub-type of the virus and less than optimal representatives of the H3N8 sub-type. At February 2008 there were no commercially available vaccines containing strains of the group of the variant American sub-lineage virus (also referred to as the Florida sub-lineage) that includes the Wisconsin/1/03 and South Africa/4/03 strains as well as the Sydney/07, Ibaraki/07 and Pennsylvania/07 strains.⁹⁰

In his evidence to the Inquiry, Dr Newton of the Animal Health Trust stated that Merial, the manufacturer of ProteqFlu™, is completing the licensing process for a vaccine that includes the Ohio/03 strain of the H3N8 virus, which is in the Florida sub-lineage. His recommendation, and that of the OIE expert surveillance panel, is that vaccines containing a strain from that sub-lineage be used.⁹¹ Dr James Gilkerson gave evidence that inquiries suggest the ProteqFlu vaccine should be available commercially by the middle of 2008.

⁸⁹ T3290 (Nunn).

⁹⁰ T4187 (Newton).

⁹¹ T4187–T4188 (Newton).

If a vaccine containing currently circulating strains does become available, that vaccine should be specified in the import conditions. If no such vaccine becomes available, the import conditions should at least identify and exclude vaccines that contain out-of-date strains or vaccines that are known not to provide adequate protection.

Recommendation

I recommend that the import conditions for horses specify, based on advice from Biosecurity Australia that is reviewed at least annually, the vaccines for equine influenza to be administered to horses before they are exported, taking account of the countries or regions from which the horses are exported. If there are commercially available vaccines that contain representatives of currently circulating strains, the import conditions should specify that the horses be vaccinated using that vaccine or one of those vaccines. Otherwise, the conditions should specify the vaccine or vaccines that may be used, based on the advice of Biosecurity Australia.

5.13.2 Pre-export quarantine

In relation to PEQ, the evidence suggests that Australia's current policies and procedures associated with importation are deficient in a number of respects:

- (a) The PEQ premises and their operating procedures have not been inspected and approved by Biosecurity Australia or any other body or person qualified to do so.

Recommendation

I recommend that the import conditions for horses include that the operations and procedures at the pre-export quarantine premises may from time to time, be inspected and audited by or on behalf of the Australian Government.

- (b) The current conditions require personnel attending the horses to wear dedicated clothing and to wash their hands before handling the animals. The risk to animals in PEQ is that they become infected by disease from outside PEQ, so such personnel should be required to shower and change when entering the premises and before handling the animals.
- (c) The conditions currently applying to PEQ have not been drawn up following inspection and analysis by Biosecurity Australia or some other body qualified to identify any biosecurity risks and deal with those risks.
- (d) The current conditions do not exhaustively take into account the movement of a horse from PEQ premises to an aircraft for carriage to Australia. The people who might have contact with the horse during that period and any other risks of contamination need to be taken into consideration.

- (e) Blood samples should be taken from horses while they are in PEQ. The samples should be frozen and stored, and part of the sample should be imported into Australia with the horse and held for future reference. In the recent outbreak difficulties were experienced in obtaining blood samples taken in pre-export quarantine from some of the imported horses.

Recommendation

I recommend that the import conditions for horses include that a blood sample be taken while a horse is in pre-export quarantine. Part of the sample is to be retained in the country of export and another part of that sample is to be transported to Australia, preferably with the horse. Both parts are to be retained for at least three months.

- (f) The current conditions require that there be testing for equine influenza in pre-export quarantine. The condition should require that this take place as late as possible before the horse leaves pre-export quarantine.

Recommendation

I recommend that the import conditions for horses include that each horse be tested for equine influenza at a time as close as practicable to the end of the pre-export quarantine period. Until more sensitive and specific detection tests become available, an agent test for influenza A—either a quantitative PCR or an antigen-capture ELISA test—should be used.

- (g) It is important that information about adherence to these conditions, particularly those concerning vaccination, the giving of blood samples and negative testing for equine influenza be available before the horse is transported to Australia. If preventative action can be taken for a horse with an uncertain health status before entry, then there should be as few inhibitors to it as possible.

Recommendations

I recommend that the import conditions for horses specify that there be available for inspection at the port of loading and produced on the horse's arrival in Australia, certification (including in electronic form) that the horse has been vaccinated, has had a blood sample taken during pre-export quarantine, and has passed a suitable detection test, currently either a quantitative PCR or an antigen-capture ELISA test for influenza A.

I recommend that, before a horse is loaded on to an aircraft or vessel for carriage to Australia, AQIS verify that there exists such certification as is required by its import conditions up to the time the horse arrives at the airport of departure and that the horse complies with those conditions. This could be done by facsimile or electronic communication with AQIS officers in Australia.

5.13.3 Arrival in Australia and PAQ

In relation to arrival in Australia and PAQ, the evidence suggests that the current policies and import conditions are inadequate in no fewer than three respects:

- (a) The procedures for arrival at the airport and transport to the quarantine station should be consistent with a HACCP approach. At present this is required only for the quarantine station procedures.
- (b) The conditions require that personnel attending the horses have no contact with horses outside the premises during PAQ and that they shower when arriving at the PAQ premises. It should be made clear that this condition applies to personnel residing in the quarantine station during PAQ. All other personnel who attend the horses in PAQ should be required to shower and change clothing and footwear before leaving the station.
- (c) The testing for equine influenza on arrival of the horses in post-arrival quarantine should be by a 'rapid' immuno-assay test as well as a qPCR test.

Recommendation

I recommend that the import conditions for horses include that the nasopharyngeal swabs taken within 24 hours of arrival and five days after the last horse arrives in post-arrival quarantine be divided and the swabs made subject to a quantitative PCR test and a 'rapid' immuno-assay test to detect influenza A. The operating procedures should also require that these additional tests be conducted.

- (d) There is no testing of each horse for equine influenza at the last practicable opportunity before its release from PAQ.

Recommendation

I recommend that the import conditions for horses include that each horse be tested for equine influenza as close as practicable before the end of the quarantine period and that a negative result for that test be available before the horse may be released from quarantine. Until more sensitive and specific detection tests become available, an agent detection test for influenza A—either a quantitative PCR test or an antigen-capture ELISA test—should be used for that purpose.

6 AQIS work instructions and procedures

This chapter looks at the procedures that ought to have been followed and those that in fact were followed by AQIS officers immediately before the equine influenza outbreak in August 2007, from the time of the horses' arrival in Australia until their release from the government quarantine stations of Eastern Creek in New South Wales and Spotswood in Victoria.

Four AQIS programs were involved in the sequence of events making up the post-arrival part of the importation process:

- (a) Officers from the Live Animal Imports Program were responsible for the clearance of the horses at the airport and the review of the associated paperwork. They also performed some functions at the quarantine station.
- (b) Officers from the Airports Program were responsible for clearing the crew and passengers and their personal baggage.
- (c) Officers from the Air Cargo Unit, within the Import Clearance Program, were responsible for dealing with cargo, including the horse airstalls.
- (d) Officers from the Post-Entry Animal Quarantine Program were responsible for management of the horses at the quarantine station.

The first part of the chapter deals with the procedures in relation to the horses—the aspects of the post-arrival importation process that were the responsibility of officers in the LAI and PEAQ Programs, the development of the procedures, what the documented procedures were at August 2007, and what was actually occurring at the airports and the quarantine stations.

The chapter moves on then to look at the procedures of the Airports Program and of the Air Cargo Unit.

6.1 Procedures in relation to horses

Immediately before the equine influenza outbreak there were two important documents setting out procedures in relation to horses. The AQIS Work Instruction for the Clearance of Live Horses (referred to here as the Live Horse

Work Instruction)¹, as issued on 11 May 2004, described procedures in respect of clearance at the airport, reviewing of the associated documentation, and management of horses at the quarantine station. Procedures for the quarantine stations were also documented as a draft only—the ‘Operations Manual for Horses at Government Post Arrival Quarantine Station’ (known as the draft Operations Manual).² The content of those documents is discussed in detail later in this chapter. This section discusses the development of the Live Horse Work Instruction and the draft Operations Manual and other relevant events leading up to August 2007. It then looks at the documented procedures and those that were actually being followed in the period immediately before the outbreak.

6.1.1 Development of the procedures

Before 2003

The earliest document setting out in any relatively clear, structured way procedures for AQIS officers in relation to imported horses was the *Quarantine Station Operations Manual*³, which had been compiled in about 1998.⁴ It included operating procedures for horses and a section on equine influenza.⁵ It also dealt with disinfection⁶, site security⁷, and record keeping for internal review and auditing⁸, all of which were relevant to the importation of horses. On the evidence before the Inquiry, the extent to which the quarantine stations were having regard to, and complying with the manual’s instructions is not clear. In any event, as noted later, in subsequent years officers in the PEAQ Program in Canberra did not see the manual as adequately documenting the procedures for horses.

A second document produced by AQIS before 2003 was a Quarantine Operational Notice 1999/108, entitled ‘Policy for Access to Horses During Quarantine’ and dated 6 December 1999.⁹ It was not specifically directed at what was required of AQIS officers; rather, it set out the conditions under

¹ AQIS.0001.001.0011.

² AQIS.0001.001.0080.

³ DAFF.0001.812.0007. There were also two documents relating to people’s access to the quarantine stations, which, on their face, appear to have been prepared at one of the quarantine stations in November 1998 and June 1999 respectively. The documents are titled ‘Horse visitor rules during quarantine’ (EII.0001.001.0218) and ‘Horse grooms—please note’ (DAFF.0001.100.0259).

⁴ See WIT.AQIS.015.0001 at para. 66 and WIT.AQIS.016.0001 at para. 44.

⁵ DAFF.0001.812.0007 at 0065.

⁶ DAFF.0001.812.0007 at 0071–0072.

⁷ DAFF.0001.812.0007 at 0079.

⁸ DAFF.0001.812.0007 at 0081.

⁹ AQIS.0002.016.0955.

which personnel were permitted to visit imported horses during post-arrival quarantine. The following were among those conditions:

- (a) Appointments for visits had to be made with the quarantine station in advance, and visits would be fully supervised by a quarantine officer.
- (b) Essential personnel—handlers, farriers and veterinarians performing non-elective services—had to wear protective clothing and footwear (provided by the facility) at all times and had to shower before leaving the facility.

This Quarantine Operational Notice was later included in Attachment 1 to the Live Horse Work Instruction.¹⁰

Development of the Live Horse Work Instruction and the draft Operations Manual

In 2003 officers in the LAI Program in Canberra embarked on a project to formulate work instructions for clearance of the various species of animals imported into Australia, including horses. There was a common belief at that time that there was no designated place where AQIS procedures relating to the importation of a commodity could be located.¹¹ The project evolved out of a number of other projects at that time:

- (a) the Order into Quarantine project, which arose from the identification of inconsistencies in the processes by which officers in the regions were ordering imported live animals into quarantine¹²
- (b) a staffing review of the LAI Program, which arose out of a realisation of inconsistencies between regional offices in relation to the tasks being performed by veterinary officers (as opposed to general quarantine officers) within the LAI Program¹³
- (c) a project to develop a standardised examination and record of it for the inspection of cats, dogs and horses in post-arrival quarantine.

Dr Michael Hibbert was acting National Manager of the LAI and PEAQ Programs from March 2003 to June 2004 and was responsible for development of the work instruction for horses (which became the Live Horse Work Instruction) during that period.¹⁴ Dr Hibbert's evidence was that the work instruction 'was to be a collation of the current work practices of the various

¹⁰ Document C: AQIS.0001.001.0028.

¹¹ WIT.AQIS.015.0001 at paras 22–56.

¹² The final report on the project is at DAFF.0001.815.0033.

¹³ The final report on the review is at DAFF.0001.069.2306.

¹⁴ WIT.AQIS.015.0001 at paras 55–57.

regions ... at that particular time'.¹⁵ He had assigned responsibility for preparing the Live Horse Work Instruction to Mr George Hughes, an officer in the LAI Program in Canberra.

At about the same time as the work instruction project, another was afoot for the development of an operations manual for each species of animal housed at government quarantine stations. That project was part of the PEAQ 'business plan' for 2003–04.¹⁶ Dr Hibbert participated in the decision to develop operations manuals¹⁷, as was Dr Narelle Clegg, the acting Manager, Animal Programs.¹⁸ Dr Hibbert was of the view that the quarantine stations operated by AQIS did not have matching, or auditable, documented procedures. He considered that the operations manual prepared in about 1998 was 'a generic document lacking in detail in relation to specific procedures and records'.¹⁹ Dr Clegg also believed the document was not of sufficient detail.²⁰

Dr Hibbert thought the operations manual would provide consistency in procedures, allow for internal auditing and provide a resource for training.²¹ The operations manual for horses (which became the draft Operations Manual) was to be separate from the Live Horse Work Instruction, 'so that the Operations Manual could be used as a "tool" for training staff at the Quarantine Stations'.²² In late 2003 or early 2004 Ms Bernadette Oakes, an officer in the LAI and PEAQ Programs in Canberra, was asked by Dr Hibbert to prepare the operations manual for horses. He gave priority to horses, he said, because he considered they were a greater quarantine risk than cats and dogs.²³

Mr Hughes drafted the Live Horse Work Instruction, having regard to, among other things, information obtained from the regions about the documented processes and procedures for managing horse importation, the Order into Quarantine project, the standardised examination project, and observations of clearance processes around the country.²⁴

No advice about the adequacy, from a biosecurity perspective, of the arrangements contained in the Live Horse Work Instruction was sought or

¹⁵ WIT.AQIS.015.0001 at para. 58.

¹⁶ WIT.AQIS.016.0001 at para. 45.

¹⁷ WIT.AQIS.015.0001 at paras 66–69.

¹⁸ WIT.AQIS.016.0001 at paras 3, 45.

¹⁹ WIT.AQIS.015.0001 at para. 66.

²⁰ T3355.

²¹ WIT.AQIS.015.0001 at para. 68; T3710.

²² WIT.AQIS.015.0001 at para. 68; AUSVETPLAN referred to an operations manual for quarantine stations.

²³ WIT.AQIS.015.0001 at paras 68–69.

²⁴ WIT.AQIS.015.0001 at para. 58.

obtained from Biosecurity Australia.²⁵ AQIS did not have a formal requirement that this occur.²⁶ Dr Hibbert conceded that advice from Biosecurity Australia might have been of assistance in the formulation of the Work Instruction but appeared to think it was not necessary because the LAI Program had had experience with the Olympic procedures (in respect of which Biosecurity Australia had played a role).²⁷

The Sandown HACCP (hazard analysis critical control point) manual, which is discussed in detail in Section 10.3.1, was not used as a basis for developing that part of the Live Horse Work Instruction dealing with the quarantine stations. Dr Hibbert's explanation for that was that the priority was to get the import clearance side of the Work Instruction finalised; the PEAQ aspect of the process was to be completed later (in the form of the Operations Manual)²⁸, and the HACCP manual had a number of procedures that would not be implementable at Eastern Creek.²⁹

A draft of the Live Horse Work Instruction was posted on the AQIS intranet in September 2003, and officers in the regions were invited to comment on it by 7 November.³⁰

Notwithstanding the project to develop the Operations Manual, the Live Horse Work Instruction included a section on the procedures for horses at the quarantine station. Dr Hibbert's explanation for this was as follows:

As the Work Instructions were intended to be a collation of the available information at the time and were completed prior to the Operations Manual ... all the available information was included in the relevant Work Instructions. The intention was to remove activities specific to the Quarantine Station staff from the relevant Work Instructions after that material had been included in the Operations Manual ... and that Operations Manual had been finalised.³¹

In oral evidence, Dr Hibbert explained that the quarantine station procedures were to be reviewed and recorded in short form in the Live Horse Work Instruction as a minor aspect of that instruction. It was a collection of what was available at the time, and would be expanded in the Operations Manual.³² Dr Clegg also acknowledged that the instruction was an attempt to document

²⁵ T3731 (Hibbert).

²⁶ T113 (Gordon).

²⁷ T3731.

²⁸ T3724.

²⁹ T3733.

³⁰ WIT.AQIS.006.0001 at para. 33.

³¹ WIT.AQIS.015.0001 at para. 59.

³² T3763.

what was already being done in the regions and was not exhaustive in terms of procedures at the quarantine stations.³³

Dr Phillip Widders provided comments on the draft Live Horse Work Instruction to Mr Hughes on 31 October 2003.³⁴ Among his comments was that the section on personnel at the airport required improvement:

These work instructions require that farriers and vets attending the horses during PAQ change clothes and shower out, this should apply equally to people handling horses at arrival. Currently truck drivers may assist in unloading and loading, we require that they wear overalls if they do, but this is less than a full shower out, and truck drivers could be off doing another job straight after the quarantine job. I believe it should be put to the importer to provide sufficient personnel to handle the horses on arrival (doesn't happen currently, that's why drivers often required) and have handlers sign to confirm that they will shower/change clothes etc or have them accredited so they undertake to do same.³⁵

It appears that no amendment to this section of the draft Work Instruction was made as a result of Dr Widders' comments.³⁶

Dr Widders also commented on the horse health examination required to be undertaken within 48 hours of a horse's arrival at the quarantine station.³⁷ He said the level of examination required was beyond any inspection needed to assess the quarantine health status of the horse and would consequently impose a significant cost on the importer in circumstances in which the benefit accruing to AQIS and the importer was negligible.³⁸ It was not clear on the evidence before the Inquiry whether any amendments were made to the Work Instruction in respect of the examinations as a result of Dr Widders' comments. (This is because the requirements for the examination were set out in a document that was attached to the draft Live Horse Work Instruction but was not included in the copy of the Work Instruction containing Dr Widders' comments.) Nevertheless, I infer from the version of the document that set out the examination requirements and was attached to the finalised Live Horse

³³ T3362.

³⁴ DAFF.1001.004.0258.

³⁵ DAFF.1001.004.0259 at 0265.

³⁶ Compare the version of the Work Instruction commented on by Dr Widders (at DAFF.1001.004.0259 at 0265) with the finalised Work Instruction (at AQIS.0001.001.0011 at 0016).

³⁷ DAFF.1001.004.0259 at 0273–0274. Although these comments were placed under document H in Attachment 1 to the Work Instruction, 'AQIS horse health record sheet', it appears by their content that they were intended to be in respect of document G, 'Examination of the horse in post arrival quarantine'. The examination document is not included in the copy of the Work Instruction containing Dr Widders' comments, but a version of it appears to be in the finalised instruction at AQIS.0001.001.0011 at 0034.

³⁸ DAFF.1001.004.0273.

Work Instruction³⁹, that the examination required by the finalised Work Instruction still went beyond what Dr Widders would have considered necessary for quarantine purposes.

Dr Widders' evidence was that, in responding to the draft Work Instruction, he quite possibly restricted his comments to matters affecting the LAI Program, but he could not recall exactly what his thinking was at the time. He might have restricted his comments in this way because he did not have a role in the PEAQ Program until January 2004.⁴⁰

Mr Hughes did amend the Work Instruction to take into account some of the comments made by Dr Widders. In respect of those about personnel at the airport, Dr Hibbert's evidence was that it was his intention to include in the Operations Manual a procedure that required the truck drivers who had contact with horses to shower before departure from a quarantine station.⁴¹ This was because there were no shower facilities at the airport and the drivers had to travel to the quarantine stations. In oral evidence, Dr Hibbert agreed that there was not really any reason why this requirement could not already—indeed, immediately—have been incorporated in the Live Horse Work Instruction.⁴² The instruction was subsequently finalised and circulated.

Ms Oakes prepared the draft Operations Manual having regard to the following:

- (a) her knowledge of the quarantine stations operated by AQIS, gained from visiting Eastern Creek in 1998 and from telephone conversations she had with the AQIS quarantine station managers from time to time in the course of her normal duties
- (b) the *Quarantine Station Operations Manual* of 1998⁴³
- (c) the biosecurity arrangements for the Sydney 2000 Olympics
- (d) the operations manuals for the privately operated facilities at Sandown and Canterbury
- (e) telephone conversations with Mr Wayne Gundry, Manager of Spotswood Quarantine Station, in relation to the development of the Operations

³⁹ AQIS.0001.001.0011 at 0034–0035.

⁴⁰ T988–T989.

⁴¹ WIT.AQIS.015.0001 at para. 61.

⁴² T3735.

⁴³ WIT.AQIS.032.0001 at para. 17.

Manual, during which the specific procedures and processes used at Spotswood and Eastern Creek were discussed.⁴⁴

As with the Live Horse Work Instruction, no advice in respect of the adequacy from a biosecurity perspective of the arrangements contained in the draft Operations Manual was sought or obtained from Biosecurity Australia.

Ms Oakes sent an email, attaching the draft Operations Manual and seeking comments, to, among others, Mr Gundry, Dr Widders and Ms Joanne Eddy (the Animal Quarantine Supervisor at Eastern Creek) on 31 March 2004.⁴⁵ Not receiving any response, she sent a further request for comments on 3 May 2004.⁴⁶ She made it clear that she did not think she had the expertise to do more than what was, in substance, a preliminary draft only.

Shortly after, on 5 May 2004, Mr Hibbert sent an email to the regional managers, including the Regional Manager of New South Wales, Mr Graham Turner.⁴⁷ The email attached the report on the LAI staffing review⁴⁸ and stated:

The review ... includes some national recommendations such as formulation of work instructions ... The work instructions have been formulated for each imported species [and] are currently available on the intranet ...

The work instructions were formulated to ensure a nationally consistent process and are now the reference information related to clearance of animals for officers of the live animal import section. They include the most appropriate process for meeting the Quarantine Act's requirements (including approved forms) for live animal imports and will be updated as required. The work instructions can be implemented immediately.⁴⁹

That email promulgated the Live Horse Work Instruction.⁵⁰

On 11 May 2004 Mr Hughes advised some officers in the regions, including Dr Widders and Ms Claire McKee, Manager of Eastern Creek at the time, that the Live Horse Work Instruction had been updated to include more detailed directions in relation to the release into quarantine surveillance of mares in foal. Mr Hughes's email stated:

The updated document is available on AQISnet ... under Quarantine and import operations/Live animal/Work instructions. If you have not already

⁴⁴ DAFF.0001.812.0007.

⁴⁵ DAFF.0001.217.4859.

⁴⁶ DAFF.0001.217.4784.

⁴⁷ DAFF.0001.069.2305.

⁴⁸ The final report on the staffing review was finalised and approved for circulation to AQIS regional managers at an earlier time, but its circulation was delayed because resources in the LAI Program were directed elsewhere in subsequent months. (WIT.AQIS.015.0001 at paras 52–53; WIT.AQIS.016.0001 at para. 33.)

⁴⁹ DAFF.0001.069.2305.

⁵⁰ T131 (Gordon).

done so please save this link to your favourites as this will be the main area for accessing internal LAI/PEAQ related documents. I will let you know when documents are updated or new documents included on this site.⁵¹

The content of the Live Horse Work Instruction is discussed in Section 6.1.2.

Dr Widders was not aware of any further direction or training in relation to the Live Horse Work Instruction or any review of the implementation or efficacy of the instruction after that time.⁵² Until the August 2007 outbreak the instruction remained on the AQIS intranet in the form posted on 11 May 2004.⁵³

On 13 May 2004 a meeting of quarantine station managers was held; it was attended by Dr Hibbert, Dr Widders, Ms McKee and Ms Eddy.⁵⁴ The minutes of the meeting include the following reference to the draft Operations Manual (here referred to by Dr Hibbert as the ‘draft horse sop’ [standard operating procedure]):

6. Development of standard operating procedures (cats, dogs and horses)

...

Michael [Hibbert] advised that a draft horse sop was distributed to the regions but that he would like to re draft this document and redistribute prior to seeking feedback.

The [quarantine station managers] advised that the development of such documents should have substantial regional input.⁵⁵

Following consideration of the LAI staffing review and the final version of the work instructions, including for horses, on 19 May 2004 Dr Widders expressed the view to Mr Turner and Ms Julie Sims (the New South Wales Assistant Regional Manager with responsibility for the LAI and PEAQ Programs) that the work instructions had, as was largely the fact, ‘been developed by staff with no or limited experience of clearance procedures, and require significant input to ensure that they are practical’.⁵⁶

Soon afterwards, Dr Widders provided comments on the LAI staffing review to Mr Turner⁵⁷, who forwarded the comments, with minor alterations⁵⁸, to Ms Jenni Gordon⁵⁹, who forwarded them to Dr Clegg without any comment

⁵¹ DAFF.0001.217.4783.

⁵² WIT.AQIS.006.0001 at para. 34.

⁵³ WIT.AQIS.016.0001 at paras 41–42.

⁵⁴ DAFF.0001.210.0238.

⁵⁵ DAFF.0001.210.0238 at 0239–0240.

⁵⁶ DAFF.0001.088.0096.

⁵⁷ DAFF.0001.069.2449.

⁵⁸ DAFF.0001.597.0135.

⁵⁹ DAFF.0001.069.2295.

apart from a cryptic triple exclamation mark.⁶⁰ Dr Widders' comments were to the following effect:

- (a) Of all live animal imports, the import of horses from countries other than New Zealand represented the greatest risk for the introduction of serious exotic disease—namely, equine influenza. He did not support any reduction in direct AQIS oversight of these imports.
- (b) He offered qualified support for the recommendation that airport clearance of horses be performed by a quarantine officer rather than a veterinary officer. The qualifications included, he said, that procedures were developed to ensure that horse importers provided for sufficient and appropriately trained staff at the airport during the unloading and that any risks for dissemination of exotic diseases via airport personnel were addressed.
- (c) He did not support the recommendation that examination of horses at the beginning of post-arrival quarantine be performed by a private veterinarian. He considered that taking that task from an AQIS veterinary officer would remove critical oversight of the performance of quarantine because it was by that inspection that the veterinary officer could assess the health of horses in the crucial period immediately post-arrival, when respiratory disease was most common.
- (d) The work instructions drafted by AQIS in Canberra for a range of animal commodities required considerable input from experienced regional officers to ensure that they were operationally practical.
- (e) The quarantine officer responsible for performing the functions proposed in the review, which included the airport clearance of horses, must be supported by practical work instructions.⁶¹ (Afterwards, Dr Widders maintained that the documented procedure for clearance of horses at the airport did not adequately take account of the quarantine risks and so continued to require, until the equine influenza outbreak, that clearance of all horses from countries other than New Zealand be done by a veterinary officer.⁶²)
- (f) A procedure for monitoring the effectiveness of functions performed in the regional LAI Program must be developed and implemented.

⁶⁰ DAFF.0002.052.9526.

⁶¹ DAFF.0001.069.2449 at 2459.

⁶² WIT.AQIS.006.0001 at para. 46; T998.

Officers in the LAI Program in Canberra nonetheless considered that input in respect of the Live Horse Work Instruction had already been received from officers in the regions.⁶³

In about mid-June 2004 Ms Gordon and Mr Turner agreed on the convening of a meeting of officers in the LAI and PEAQ Programs in New South Wales and Canberra. The intention, according to Mr Turner, was for the officers to discuss matters with a view to establishing a clear and common understanding and direction for program service delivery in New South Wales.⁶⁴ Mr Turner proposed an agenda that included the LAI staffing review but did not expressly refer to the Live Horse Work Instructions.⁶⁵ Ms Gordon's view was that the purpose of the meeting was 'to resolve issues of management at Eastern Creek—specifically who is responsible for what'. She had concerns about 'the understanding of staff of where they fit into a complex management structure which requires them to exercise professional judgement while noting the need for national consistency, efficiency and effectiveness against Corporate outcomes'.⁶⁶

Ms Gordon's view was that the LAI staffing review was not relevant to the meeting because the decision had already been made—it had been signed off by senior management in Canberra after they had taken into consideration the views of all regional offices and officers and was not being revisited at that point—and the question was one of 'responsiveness' by the region.⁶⁷ Dr Clegg, who was to participate in the meeting, suggested to Ms Gordon that the meeting discuss Dr Widders' comments on the LAI staffing review⁶⁸, but it was not clear on the evidence before the Inquiry whether that was agreed to by Ms Gordon and communicated to Mr Turner. Dr Widders listed the matters he wished discussed at the meeting (although he did not circulate the list) as including:

- Implementation of LAI review recommendations
 - Level 4 dedicated (cf Level 3 ACU in Vic)
 - Private vets and costs/oversight of quarantine
 - Extent of vet check mandated for imported animals (companion animals plus horses)

- Work procedures and input from regions (what response has been received from regions?)⁶⁹

⁶³ T3733 (Hibbert); T3363 (Clegg).

⁶⁴ DAFF.0001.069.2522.

⁶⁵ DAFF.0002.052.6454 at 6455.

⁶⁶ DAFF.0002.052.6454.

⁶⁷ DAFF.0002.052.6454.

⁶⁸ DAFF.0002.052.9430.

⁶⁹ DAFF.0001.737.0003.

The final item was intended to prompt discussion of the development of work procedures and the consideration of input from the regions and whether other regions had also made contributions.⁷⁰

After a number of postponements because of officials' unavailability, the meeting finally took place in October 2004. It was attended by Dr Widders, Ms Sims, Dr Clegg, Ms Kylie Lance (then National Manager of the LAI and PEAQ Programs) and possibly Ms McKee.⁷¹ Mr Turner introduced the meeting but was then called away. Dr Widders' evidence was that there was discussion of the Live Horse Work Instruction at the meeting and that he stated his view that the existing work instructions still required some work and input from regional officers and did not deal with significant risks, particularly at the airport.⁷² In evidence, Dr Clegg said she did not recall the outcome of the meeting.⁷³ She did not, in any event, do anything about Dr Widders' concerns with the Live Horse Work Instruction afterwards.⁷⁴

Dr Widders' evidence was that at no time in the period between that meeting and August 2007 was he asked by the national program to make further contributions to the Live Horse Work Instruction. The New South Wales regional office left it up to Dr Widders to discuss the technical aspects of the Work Instruction with the designers or managers of the national program.⁷⁵ Dr Widders also gave evidence that he forwarded his comments on the Work Instruction to the national program again in 2006⁷⁶, although it is not clear what prompted him to do that or what consideration was given to his comments at the time. In any event, it is evident that no amendments were made to the instruction.

The draft Operations Manual was discussed at at least two meetings of quarantine station managers in 2005 at which Dr Widders, Ms Eddy and Mr Mohamad Hamid, among others, were present. The minutes of the meeting held on 10 February 2005 recorded the following:

2. Dog, cat, horse SOP's

George [Hughes] advised that the dog, cat and horse SOP's were now up on the intranet and encouraged the group to participate in providing comments. The group had no comment to make at the moment as they had not had a

⁷⁰ T1249.

⁷¹ WIT.AQIS.016.0001 at para. 43.

⁷² T979, T1001–1005.

⁷³ T3363.

⁷⁴ T3394.

⁷⁵ T1004–1005 (Widders).

⁷⁶ WIT.AQIS.006.0001 at para. 34.

chance to go through the documents. Kylie [Lance] requested that all comments be into the program by the end of February.⁷⁷

The minutes of the meeting held on 9 November 2005 recorded the following:

Horse work instructions

Jo [Eddy] and Mohamad [Hamid] mentioned that there were draft work instructions on the intranet that were there for comment and George Hughes had reviewed and updated the first draft in January and had not been reviewed since.

Action: Tran to review and update the Horse work instructions.⁷⁸

(‘Tran’ appears to be a reference to Ms Tran Tang, an officer in the PEAQ Program in Canberra who was present at the meeting.⁷⁹)

On the basis of the description of events that occurred in respect of the documents referred to in the minutes of these two meetings, I conclude that the documents referred to consisted of the Operations Manual, such as it was.

It appears that no significant steps towards finalising the draft Operations Manual were taken between February 2005 and the equine influenza outbreak in August 2007, at which time the manual remained in draft form on the AQIS intranet. The content of the manual is discussed in Section 6.1.2.

Lack of progress in relation to the draft Operations Manual was the state of affairs despite the inclusion of its finalisation as an item in a number of business plans for the PEAQ Program. The following ‘strategy’ and ‘milestones’ were in the PEAQ Program business plan for 2005–06⁸⁰, as a means by which ‘PEAQ is planning to accomplish its objectives and/or mitigate risk’:

Outline

To achieve border security and animal welfare by implementing national work procedures for the daily care of cats, dogs and horses undertaking post-arrival quarantine.

Rationale

The formulation of standard work procedures contributes to maintenance of an acceptable and consistent client service delivery standard providing a basis for training staff and performance through people appraisals.

Current procedures to be reviewed and inconsistencies identified.

⁷⁷ DAFF.0001.555.1489.

⁷⁸ DAFF.0001.555.1556 at 1559.

⁷⁹ DAFF.0001.555.1556.

⁸⁰ DAFF.0001.669.0001.

Milestones

Standard work procedures documented and implemented nationally.
Expected completion date: August 2005

Audit of standard work procedures at each quarantine station. Expected completion date: March 2006

Review of standard work procedures. Expected completion date: June 2006⁸¹

Dr Clegg's evidence was that this item in the business plan was intended to include completion of the Operations Manual by August 2005 and that there would then be an audit to look at whether the manual was being implemented and how effective it was.⁸² The first business plan review, dated 8 December 2005, in respect of the PEAQ Program business plan for 2005–06⁸³ commented against the milestone of 'standard work procedures documented and implemented nationally' that 'standard work procedures are being reviewed for effectiveness'.⁸⁴ The second business plan review⁸⁵, dated 9 May 2006, included, under the headings of 'Non-achievement' and 'Corrective action' the following:

Non-Achievement

Audit of standard work procedures at each quarantine station.

Corrective action

Due to lack of resources Live Animal Imports has deferred the audit of work procedures at quarantine stations and will be incorporated into the 06/07 PEAQ business plan.⁸⁶

Dr Clegg conceded that the entries in the business plan review documentation could be misleading to the extent that they suggested that the standard work procedures in relation to horses had been finalised and that the only non-achievement was to do with auditing, whereas the Operations Manual had not been finalised.⁸⁷

The PEAQ Program business plan for 2006–07 did not include any specific 'annual' strategies in respect of procedures for horses at the quarantine stations. It included, however, as an 'ongoing' strategy, 'Revise and review work instructions to ensure consistency and appropriateness of practice'⁸⁸, although

⁸¹ DAFF.0001.669.0001 at 0007.

⁸² T3377–T3378.

⁸³ AQIS.2003.045.0085.

⁸⁴ AQIS.2003.045.0085 at 0088.

⁸⁵ AQIS.2003.045.0090.

⁸⁶ AQIS.2003.045.0090 at 0094.

⁸⁷ T3380–T3383.

⁸⁸ DAFF.0001.669.0260 at 0265.

that item was not intended to capture the finalisation and audit of standard work procedures that had not been achieved under the previous business plan. Instead, the subjects of finalising, implementing and auditing procedures relating to horses at the quarantine stations were not included in the business plan because there were insufficient resources to enable the matter to be dealt with in the light of other projects that had higher priority.⁸⁹ Dr Clegg, who signed off on the business plan, considered the absence of documented procedures for looking after horses in quarantine stations was unsatisfactory, but:

It hadn't been addressed for a number of years, and, therefore, another delay while other activities were taken up didn't seem to me to be a major issue. There was a draft [of the Operations Manual] on the intranet. The managers were aware of it and it was raised, in fact, by two of the managers at Eastern Creek in 2006.⁹⁰

Dr Clegg also claimed in this context that the Live Horse Work Instruction was a finalised document that was available to staff in the quarantine stations.⁹¹

Mr David Ironside, as the officer responsible for drafting the PEAQ Program business plan for 2007–08, included in that plan as an ‘Annual strategy’ ‘Development and provision of nationally consistent standard operating procedures and work instructions on the intranet for dogs, cats and horses’.⁹² Mr Ironside included this item, which was directed at having the Operations Manual finalised and on the AQIS intranet, in part as a result of Mr Greg Hankins’ inquiry of him in March or April 2007 (as discussed shortly) and subsequent discussions between them.⁹³

Mr Ironside conceded in evidence that, in the time since the PEAQ Program business plan for 2005–06 had been formulated, nothing had happened in relation to the documentation and implementation of the procedures for horses at the quarantine stations.⁹⁴ His explanation for that was as follows:

in terms of the work procedures and operations manuals that relate to the whole range of activities that fall under the live animal imports and post-entry animal quarantine programs, there is a need to prioritise the project work that gets done, and not every project that is listed in the business plan gets done each year, because invariably every year something happens and there are other issues which arise which assume greater priority than the things that you had listed in the business plan.

⁸⁹ T3385–T3386 (Clegg).

⁹⁰ T3386.

⁹¹ T3387.

⁹² AQIS.2002.017.0023 at 0033.

⁹³ T273–T274.

⁹⁴ T278.

And prior to August [2007], the auditing of work procedures and the finalisation of the operations manual, while it was something that had been ongoing and had been seen to be something that needed to be done, hadn't assumed that level of priority that saw it get done.⁹⁵

Dr Clegg's evidence too was that the Operations Manual was not finalised because other activities had taken priority.⁹⁶ Among those were the replacement of the Eastern Creek computer system and remedial action that was necessary because a cattery had collapsed.⁹⁷ The program was already 'in debt', and there were insufficient resources to complete the Operations Manual.⁹⁸

Recommendation

I recommend that there be prepared operating procedures or a manual that:

- (a) clearly sets out the procedures to be implemented by AQIS personnel at each stage of the importation process, including the documentation that must be completed at each stage
- (b) describes the potential hazards and risks in sufficient detail to enable a quarantine officer to understand why particular actions or processes are necessary and to appreciate what actions or circumstances might give rise to biosecurity risk
- (c) sets out the powers available to quarantine officers (under legislation and otherwise) in particular places or circumstances to ensure that adequate biosecurity precautions are taken.

Development of other procedures

In addition to the nationally documented procedures—the Live Horse Work Instruction and the Operations Manual—a number of documents relevant to the procedures for horses were produced at Eastern Creek Quarantine Station, among them the following:

- (a) the 'Groom induction checklist & induction record'⁹⁹
- (b) the 'Authorisation for groom to enter Eastern Creek Post Entry Quarantine Station'¹⁰⁰

⁹⁵ T278–T279.

⁹⁶ T3371–T3372.

⁹⁷ T3425–T3426.

⁹⁸ T3387.

⁹⁹ AQIS.1000.003.0045. This is the version of the document as updated in March 2007. For an earlier version, see AQIS.2001.013.0008. The substantive amendment appears to be substituting Mr Holloway's contact details for those of Ms Eddy.

¹⁰⁰ AQIS.1000.003.0050.

- (c) the ‘Operating procedures for horses’¹⁰¹
- (d) the ‘Horse procedures—arrivals’ document¹⁰²
- (e) a checklist of cleanliness¹⁰³
- (f) the ‘Expectation of grooms’ document.¹⁰⁴

The content of these documents is discussed in Section 6.1.2.

A further matter of note in relation to the procedures at Eastern Creek is the remote monitoring of the horses’ temperatures by veterinary officers at the AQIS office in Rosebery. This was made possible by the maintenance, by AQIS staff at Eastern Creek, of spreadsheets recording the temperatures taken twice daily. Dr Widders’ evidence was that this procedure ceased in about June 2004 following a direction from Dr Hibbert, who said that there were other priorities for the officers at Eastern Creek.¹⁰⁵ Dr Hibbert could not recall having ever provided a direction that this procedure should cease.¹⁰⁶ His evidence was that, had such a direction been given, if it was not given by him it would probably have been given by Dr Clegg.¹⁰⁷ Dr Clegg’s evidence was that she had no knowledge of the cessation of the practice enabling the veterinary officers in Rosebery to monitor temperatures.¹⁰⁸

In its submission, the State of Queensland urged me to accept Dr Widders’ account. Ultimately, it is unnecessary, I think, to make a finding as to who was responsible for the decision. There is no doubt that the practice ceased, and there is nothing to suggest it was because it fell into desuetude. The point to be made, in my view, is that it reflects a general lack of judgment among senior AQIS officers as to what was, and was not, important for the proper maintenance of high standards of biosecurity.

Events at Eastern Creek Quarantine Station, June 2006 to March 2007

From June 2006 until the time of the equine influenza outbreak in August 2007, Ms Rhonda Christesen was the quarantine officer at Eastern Creek who was principally responsible for horses.¹⁰⁹ She was a level 4 senior quarantine

¹⁰¹ AQIS.0001.001.0056.

¹⁰² AQIS.0001.001.0049.

¹⁰³ DAFF.0001.611.0726.

¹⁰⁴ AQIS.0002.014.0044.

¹⁰⁵ WIT.AQIS.006.0001 at para. 15; T992; DAFF.1001.004.0159.

¹⁰⁶ T3741–T3742.

¹⁰⁷ T3755–T3756.

¹⁰⁸ T3402–T3405.

¹⁰⁹ T1922.

officer and did her work under the supervision of the animal quarantine supervisor and the manager of the Quarantine Station.¹¹⁰

Ms Christesen had learnt what her duties were from training by Ms Nicole Harvey, another level 4 officer employed there. The training took place over a couple of months from June 2006. In relation to horses, it included familiarisation with the documents used for grooms entering the station. Ms Christesen was not given or informed of any work instructions or operating procedures at that time. She received only copies of forms that were in use.¹¹¹ She remained uninformed of the Live Horse Work Instruction and the draft Operations Manual until some time between April and June 2007: she was not told that the documents could be found on the AQIS intranet.¹¹² Before August 2007 she received no training in relation to equine influenza—nothing about how it was contracted, how it might spread, or what its symptoms were.¹¹³

After she started working at Eastern Creek, Ms Christesen used to visit the stables regularly. She would walk up and down each row, making sure that temperatures had been recorded but not specifically noting them, would look at the horses, and would talk to the grooms. At some stage—she says in late 2006—Ms Christesen was directed by Mr Hamid, the Eastern Creek Manager at the time, not to go over to the horse area so often because she had other things she needed to do and there were ‘certain budgetary restraints’. He did not say what those constraints were.¹¹⁴ Ms Christesen therefore took to visiting the horses only at the beginning of an intake and if she were inducting a groom, or if there was something specific the manager or the animal quarantine supervisor wished her to tell or ask a groom.¹¹⁵ After Mr Hankins and Mr John Holloway started at Eastern Creek Ms Christesen was told she could make occasional visits to the stables.¹¹⁶

It was never suggested to Ms Christesen that she was required to do anything more for the horses than she was doing. For example, she was never told that she should be taking note of the horses’ temperatures or otherwise checking their health.¹¹⁷

¹¹⁰ T1415.

¹¹¹ T1414.

¹¹² T1423.

¹¹³ T1415.

¹¹⁴ T1425–T1426.

¹¹⁵ T1481.

¹¹⁶ T1453.

¹¹⁷ T1453.

Mr Holloway became the Animal Quarantine Supervisor at Eastern Creek in February 2007. Earlier, Ms Joanne Eddy held that position; she was on medical leave and was not able to hand over to Mr Holloway when he started.¹¹⁸

Soon afterwards, in March 2007, Mr Hankins became the manager.¹¹⁹ On about 20 February 2007 he met Mr Hamid, his predecessor, for the handover of management.¹²⁰ This did not involve any discussion of technical or biosecurity operational matters. Mr Hankins was not informed of the procedures or related documents for the importation of horses. He did have a couple of discussions with Dr Widders before starting at Eastern Creek¹²¹, but those too were devoid of reference to the relevant documents or procedures.

Events from March to August 2007

In early March 2007 Mr Hankins correctly formed the view that staff at Eastern Creek were not familiar with written work instructions relating to horses, cats or dogs. He therefore raised with Mr Holloway on 8 March 2007 the question whether there were national standard operating procedures and local instructions. Mr Hankins recorded this as an item requiring action in a list he made of matters to be dealt with.¹²² Mr Holloway's evidence was that the item was given 'medium' priority because he believed, he said, the staff were already familiar with the procedures for horses. He also thought there were more pressing occupational health and safety concerns at that time.¹²³ Mr Hankins gave evidence that the item was 're-prioritised' to 'low' by June 2007 because by that time he was aware that the question of national work instructions had been included in the business plan for the PEAQ Program.¹²⁴ It is apparent from the evidence that Mr Hankins had a number of concerns. One of obvious importance, and to which he accorded high priority, was occupational health and safety.¹²⁵ One topic of discussion was the construction of a ramp to provide easier access for disabled owners of cats and dogs. The money (a relatively modest sum) was found so that it could be constructed in May 2007.¹²⁶

A search for documented procedures at Eastern Creek was carried out, and inquiries were made of Eastern Creek staff and Ms Eddy.¹²⁷ These resulted in a

¹¹⁸ WIT.AQIS.012.0001 at para. 28.

¹¹⁹ WIT.AQIS.012.0001 at para. 1.

¹²⁰ WIT.AQIS.012.0001 at para. 23.

¹²¹ WIT.AQIS.012.0001 at para. 26.

¹²² WIT.AQIS.012.0001 at para. 35; T1928–T1932; WIT.AQIS.007.0001 at 0018.

¹²³ WIT.AQIS.007.0001 at para. 44.

¹²⁴ T1930.

¹²⁵ T1929–T1934.

¹²⁶ T2538–T2542 (Holloway).

¹²⁷ T2543.

number of local procedures concerning horses being found—but not the Live Horse Work Instruction or the draft Operations Manual.¹²⁸

Despite the fact that neither the Live Horse Work Instruction nor the draft Operations Manual could be found by some at Eastern Creek and that some staff there were apparently unaware of the existence of those documents in March 2007, the documents had been at Eastern Creek before March 2007 and other staff at that time had at least been aware of them. This is clear from the events already described in relation to the development of the instruction and the Operations Manual. Further, the existence of a copy of the Operations Manual that contains handwritten annotations¹²⁹ suggests that the document was reviewed at Eastern Creek when Mr Hamid was the manager.¹³⁰ Mr Hankins, Mr Holloway and Mr Christesen were not aware who had made those handwritten annotations.¹³¹

Notwithstanding AQIS policy that the AQIS intranet should be the primary means of access to standard operating procedures¹³² and that both the Live Horse Work Instruction and the draft Operations Manual had been on the intranet since February 2005, none of the staff at Eastern Creek had found those documents there. Ms Christesen was not aware that the AQIS intranet was where work instructions or standard operating procedures could be found¹³³; Mr Hankins knew that such documents were on the AQIS intranet, but he did not look for work instructions there because he did not consider the intranet a reliable source¹³⁴; Mr Holloway had looked on the intranet but had not found the Live Horse Work Instruction or the draft Operations Manual.¹³⁵

At some stage before the equine influenza outbreak in August 2007, Mr Hankins and Ms Christesen, and probably Mr Holloway, did receive copies of both the Live Horse Work Instruction and the draft Operations Manual. The evidence as to how they obtained a copy of the Work Instruction is not clear, as the following paragraphs demonstrate, but I consider it more likely than not that Mr Hankins, Mr Holloway and Ms Christesen were all aware of the document by June 2007 at the latest.

¹²⁸ T2546.

¹²⁹ AQIS.2001.009.0002.

¹³⁰ In the 'List of contacts', the quarantine station manager is typed as 'Joanne Eddy'. There is a handwritten line through Ms Eddy's name, and 'Mohammed Hamid' is written above it. There is also a handwritten line through Mr Hamid's name, with 'Greg Hankins' above that: AQIS.2001.009.0002 at 0045.

¹³¹ T2548 (Holloway).

¹³² DAFF.0001.507.0132.

¹³³ T1423.

¹³⁴ WIT.AQIS.012.0001 at para. 36; T1935.

¹³⁵ WIT.AQIS.007.0001 at para. 36.

Mr Hankins and Mr Ironside both gave evidence to the effect that Mr Hankins contacted Mr Ironside by telephone at some time in late March or early April 2007 and asked whether there were any work instructions for the management of animals at the Quarantine Station. Mr Hankins told Mr Ironside no such documents were available at Eastern Creek and that Eastern Creek staff had informed him they had not seen any such documents.¹³⁶

Mr Ironside's evidence differs from Mr Hankins' in relation to the events that followed. On any view, though, it compels the conclusion that AQIS (so far as Eastern Creek Quarantine Station was concerned) was trapped in a seemingly impenetrable maze of bureaucratic confusion.

Mr Ironside's evidence was that in that telephone conversation he told Mr Hankins there were a dozen or so work instructions available on the AQIS intranet under the heading 'Live animal imports' and that there could be other instructional documents but he was not sure, and he would get somebody from the program in Canberra to find whatever other documents there were and forward them to Mr Hankins.¹³⁷ At the time of that telephone conversation, Mr Ironside was aware that, in respect of the importation of horses, there were on the intranet work instructions that were finalised. He was also aware that there were some other documents in existence but not how many there were or their status.¹³⁸

Following the telephone conversation, Mr Ironside asked Ms Grace Lam to send to Mr Hankins not the work instructions on the intranet but the 'other documents' whose status he was not sure of—'whatever was around and useful'.¹³⁹ Ms Lam's evidence was that Mr Ironside had asked her to send to Mr Hankins the standard operating procedures on the J drive and either the work instructions or the operations manuals on the same drive: she could not recall which.¹⁴⁰ (The J drive is a directory on the AQIS server where officers in a particular location can store electronic documents.) In response to that request, on 4 April 2007 Ms Lam sent to Mr Hankins an email, copied to Mr Ironside, attaching, among other things, the Operations Manual.¹⁴¹ The email was as follows:

¹³⁶ T259–T260, T1933.

¹³⁷ T259–T260.

¹³⁸ T260.

¹³⁹ T261, T264.

¹⁴⁰ WIT.AQIS.034.0001 at para. 3.

¹⁴¹ AQIS.INQ.001.0021.

Subject: Standard Operating Procedures

Hi Greg

Please find attached the SOP's for cats, dogs and horses, David has asked me to send them to you.

They will be reviewed this year, a job we need to add to the BP [business plan].

Cheers Grace

Mr Hankins' best recollection was that in the telephone conversation Mr Ironside replied that there were work instructions and that he would get back to Mr Hankins.¹⁴² Mr Hankins testified that he then had a meeting with Mr Ironside, on about 3 April 2007, at the AQIS office in Rosebery, during which Mr Hankins again asked if there were any work instructions. Mr Hankins' recollection was that Mr Ironside said there were work instructions and standard operating procedures in existence but that Mr Ironside did not tell him where to find them.¹⁴³ A short time later Mr Hankins received Ms Lam's email of 4 April 2007 (attaching the draft Operations Manual).¹⁴⁴ Mr Hankins did not recall when or how he received the Live Horse Work Instruction, but he did not dispute that he had seen it before the equine influenza outbreak.¹⁴⁵ He did not recall having discussed the Work Instruction with Mr Ironside.¹⁴⁶

In his written statement Mr Holloway said Mr Hankins gave him a copy of the Live Horse Work Instruction in March or April 2007.¹⁴⁷ In oral evidence, however, he said he was unsure whether the document given to him was the Live Horse Work Instruction¹⁴⁸ and could not say whether he had seen the instruction before the equine influenza outbreak.¹⁴⁹ He had received a copy of the draft Operations Manual from Mr Hankins after, he understood, Mr Hankins had made the inquiry of Mr Ironside.¹⁵⁰

Ms Christesen's evidence was that she became aware of the Live Horse Work Instruction when Mr Holloway gave her a hard copy in about June 2007 and

¹⁴² WIT.AQIS.012.0001 at para. 37.

¹⁴³ T1933.

¹⁴⁴ WIT.AQIS.012.0001 at para. 38.

¹⁴⁵ T1936–T1937.

¹⁴⁶ T1913.

¹⁴⁷ WIT.AQIS.007.0001 at para. 40.

¹⁴⁸ T2530.

¹⁴⁹ T2550.

¹⁵⁰ T2547.

asked her to review it.¹⁵¹ Shortly after that, Mr Holloway also gave her a copy of the draft Operations Manual.¹⁵²

It is more likely than not that Mr Hankins, Mr Holloway and Ms Christesen were each aware of both the draft Operations Manual and the Live Horse Work Instruction by June 2007 at the latest.

After receiving the documents and before the equine influenza outbreak, neither Mr Hankins, Mr Holloway nor Ms Christesen understood that the Live Horse Work Instruction or the draft Operations Manual had to be complied with.

Mr Hankins did not think it was necessary for AQIS staff at Eastern Creek to comply with the Work Instruction because he did not believe it was a relevant document for a post-entry animal quarantine station.¹⁵³ To the extent that he believed there were any instructions that related to horses at the quarantine station, he thought those instructions were contained, not in the Live Horse Work Instruction, but in the Operations Manual.¹⁵⁴ He also thought the section about quarantine stations in the Work Instruction was too brief and that the draft Operations Manual was a more expansive document and better covered the requirements to be met at Eastern Creek: the Live Horse Work Instruction did not offer anything more than the Operations Manual.¹⁵⁵ Mr Hankins maintained the view that the Work Instruction did not have to be complied with at Eastern Creek, despite, he agreed, ‘the general position on work instructions’ was that it would not be within his power to decide that a work instruction promulgated by the national program did not need to be complied with.¹⁵⁶

Mr Hankins held a similar opinion about the Operations Manual for several reasons: it had not been issued as a final document; it was in incomplete draft form; parts of it were expressed to be for use only at Spotswood Quarantine Station; and it did not accurately reflect the procedures being followed at Eastern Creek.¹⁵⁷ He did not seek from Dr Widders or Mr Ironside, or anyone else in the national program in Canberra, guidance on whether the Live Horse Work Instruction or the Operations Manual had to be complied with.¹⁵⁸ Instead, he and Mr Holloway and Ms Christesen began a review of the procedures that were being followed at Eastern Creek with respect to horses, in order to make a comparison with the procedures described in the draft Operations Manual.

¹⁵¹ WIT.AQIS.010.0001 at para. 109; T1416, T1452.

¹⁵² WIT.AQIS.010.0001 at para. 110.

¹⁵³ T1910, T1923.

¹⁵⁴ T1910.

¹⁵⁵ T1924–T1926.

¹⁵⁶ T1925.

¹⁵⁷ WIT.AQIS.012.0001 at paras 39–42; T1923, T1927.

¹⁵⁸ T1926.

Mr Hankins' intention was that comments would then be made to the 'national program' for advice.¹⁵⁹

Mr Holloway thought the Operations Manual was 'a draft document that was starting to set out the procedures that we needed to follow but I thought it was still in development form'.¹⁶⁰ Ms Christesen's evidence was that Mr Holloway asked her to review the Live Horse Work Instruction to see 'whether there was relevance to what we were doing and ... whether any of the attachments ... pertained to what we were doing and whether we might be able to utilise them in the future'.¹⁶¹ She was not told by Mr Holloway that the Work Instruction was mandatory.¹⁶² She could not recall what Mr Holloway said to her about the status of the Operations Manual; her understanding was that it was a document that had been generated possibly for Spotswood Quarantine Station and that she was to go through it and record her knowledge of what was being done at Eastern Creek.¹⁶³

Ms Christesen made annotations on hard copies of the Live Horse Work Instruction and the draft Operations Manual, noting parts that were consistent with what was happening at Eastern Creek and parts that were not, and returned the documents to Mr Holloway before taking leave at the beginning of July 2007.¹⁶⁴ She did not take part in any further discussion of the documents until the equine influenza outbreak.¹⁶⁵ Mr Holloway and Mr Hankins also made annotations on copies of the Operations Manual. The Eastern Creek review of the Operations Manual and the Live Horse Work Instruction was not complete by the time of the equine influenza outbreak.¹⁶⁶

Mr Ironside held a somewhat different belief from Mr Hankins and Mr Christesen. At the time of the telephone conversation with Mr Hankins at the beginning of April 2007, he considered that the Live Horse Work Instruction was to be followed at the Quarantine Station because it was a finalised document. He was not entirely sure of the status of the documents sent to Mr Hankins by Ms Lam (including the draft Operations Manual) but he 'felt that those, even if they weren't finalised, would be useful to Greg [Hankins] as background documents or as providing some sort of guidance or instruction, and that's why I had those sent to him'.¹⁶⁷ Subsequently he conceded that staff

¹⁵⁹ WIT.AQIS.012.0001 at paras 42–43.

¹⁶⁰ T2551.

¹⁶¹ T1452.

¹⁶² T1416.

¹⁶³ T1429.

¹⁶⁴ WIT.AQIS.010.0001 at para. 111; T1452.

¹⁶⁵ T1452.

¹⁶⁶ WIT.AQIS.007.0001 at para. 44.

¹⁶⁷ T268–T269.

at the government quarantine stations ‘weren’t technically required to follow [the Operations Manual] because it was a draft’.¹⁶⁸

Regardless of Mr Ironside’s views about whether or not the procedures set out in the Operations Manual were obligatory, he does not appear to have informed Mr Hankins that the manual should be complied with or otherwise to have informed him of the use he should make of it.¹⁶⁹ There is nothing to suggest that, in the period from April 2007 until the outbreak of equine influenza, Mr Ironside took any steps to inquire whether the staff at Eastern Creek had any questions about the documents or to confirm whether the Live Horse Work Instruction and the draft Operations Manual were being complied with.

Nor does he appear to have taken any action to resolve the confusion and uncertainty that are apparent from the matters just set out. Mr Ironside did not bring the situation to the attention of any person senior to Mr Hankins in New South Wales having responsibility for Eastern Creek¹⁷⁰; he did not take steps to ascertain the adequacy or otherwise of any handover or induction given to Mr Hankins¹⁷¹; and, despite finding it difficult to believe that the staff at Eastern Creek were unaware of the Live Horse Work Instruction (given the level of involvement of regional personnel in its development and the amount of time some of the staff had been at Eastern Creek¹⁷²) he did not investigate how the situation had arisen and did nothing to introduce measures to avoid a recurrence of it.¹⁷³

On the contrary, Mr Ironside seemed to think that any problem, if there was one, had been resolved by Mr Hankins being informed where the Live Horse Work Instruction could be found and given the draft Operations Manual.¹⁷⁴ On 1 June 2007 Mr Ironside regarded the position with respect to the work instructions for horses as satisfactory ‘with the single exception that the operations manual, which was in draft form, was in a draft form and that it needed to be finalised and put up on the intranet as a finalised document’.¹⁷⁵

¹⁶⁸ T291.

¹⁶⁹ T267–T269, T322.

¹⁷⁰ T270.

¹⁷¹ T319.

¹⁷² T269.

¹⁷³ T340–T341.

¹⁷⁴ T294.

¹⁷⁵ T276–277.

Recommendation

I recommend that the officer responsible for the importation of horses ensure that:

- (a) up-to-date copies of operating procedures or manuals setting out the procedures to be implemented are available both in soft-copy form on the AQIS intranet site and in hard-copy form at any premises where tasks associated with horse importation are ordinarily performed
- (b) AQIS personnel involved in the importation of horses are trained in all relevant aspects of procedures relating to the importation of horses
- (c) AQIS personnel taking up duties involving tasks related to horse importation and not having performed such tasks for more than 12 months undergo proper training in the relevant procedures before commencing their duties.

6.1.2 Documented procedures

The Live Horse Work Instruction

The Live Horse Work Instruction was promulgated on 5 May 2004.¹⁷⁶ On 11 May in that year Mr George Hughes, an officer in the LAI Program based in Canberra, informed officers in the regions of updates to the instruction, to include more detailed directions in relation to the release into quarantine surveillance of mares in foal.¹⁷⁷ The instruction remained current in that form until the time of the equine influenza outbreak in August 2007.

The Work Instruction reflected the AQIS approach to documented procedures current at the time the instruction was drafted.¹⁷⁸ It was in the form of an overarching document that, under the AQIS policy on standard operating procedures¹⁷⁹, would come within the classification of a standard operating procedure rather than a work instruction.¹⁸⁰

The Live Horse Work Instruction specified the responsibilities of key personnel as including the following:

- (a) The AQIS regional manager was to ensure that all quarantine officers involved with the importing of horses were aware of the Work Instruction and had access to it and that the ‘nominated officer’ was trained in the process of horse clearance.

¹⁷⁶ DAFF.0001.069.2305; T131 (Gordon); T3359 (Clegg).

¹⁷⁷ DAFF.0001.217.4783.

¹⁷⁸ WIT.DAFF.002.0001 at para. 68.

¹⁷⁹ DAFF.0001.507.0132.

¹⁸⁰ T293 (Ironsides).

- (b) The AQIS quarantine officer (also referred to as the ‘nominated officer’) was to ensure that he or she was familiar with the Work Instruction and was responsible for overseeing the horse clearance and post-arrival inspection procedures.¹⁸¹

Attachment 1 to the Live Horse Work Instruction was headed ‘Useful documents’ and contained 13 documents.¹⁸² There was no express statement in the Work Instruction to the effect that each of them had to be used, although there were some references in the body of the Work Instruction to specific documents in Attachment 1.

Import clearance

Section 1 of the Live Horse Work Instruction, headed ‘Import clearance’, set out procedures in respect of the clearance of horses at the airport and the associated documentation. Among the procedures specified were the following:

- (a) Ensure that only personnel relevant to the unloading and transport of the horses are present at the transfer area.
- (b) Ensure that any personnel—other than those that travelled on the flight with the horses—that are required to handle horses during unloading are wearing appropriate clothing. (No guidance is provided about what would constitute ‘appropriate clothing’.)
- (c) Check the general health of the horses and confirm their identity against the paperwork.
- (d) Consult the veterinarian or grooms travelling with the horses in relation to the horses’ health during transport.
- (e) Ensure that all relevant documentation (including health certificates, the airway bill, and a copy of the import permit) is received.
- (f) Order the horses into quarantine pursuant to s. 52 of the *Quarantine Act 1908* and give directions for the transport of the horses to the quarantine station pursuant to s. 48 of the Act.
- (g) Ensure that any lead ropes and head collars used with the horses accompany the horses to the quarantine station and direct that any lead ropes and head collars belonging to the trucks that were used with the horses are disinfected at the quarantine station.

¹⁸¹ AQIS.0001.001.0011 at 0014.

¹⁸² AQIS.0001.001.0011 at 0022; AQIS.0001.001.0025–0046.

- (h) Seal the truck for travel to the quarantine station and inform the quarantine station of the time of departure from the airport and the number of trucks and horses.
- (i) On returning to the office, check the documentation received in respect of the consignment, having regard to specified matters for the import permit, health certificates and any certificates of equivalence, and complete the cover sheet for each health certificate. (The reference to the cover sheet is perhaps intended to be a reference to document A in Attachment 1 to the Work Instruction—‘Coversheet for document clearance of live horses’¹⁸³—although that cover sheet is designed to be completed in respect of each consignment, rather than each health certificate.)
- (j) Forward all documents to the quarantine station.¹⁸⁴

Procedures at the quarantine station

Section 2 of the Live Horse Work Instruction sets out the procedures for the quarantine stations. The procedures in the body of the document were neither comprehensive nor detailed.¹⁸⁵ In some instances the procedures themselves, or at least their details, were provided in the documents included in Attachment 1. The attachment was headed ‘Useful documents’, as noted, and there was no express requirement that any of the documents in the attachment be used. Whether the documents in total were prescriptive or advisory, the sum of their relevant requirements was as follows.

Quarantine officers were to do the following things:

- (a) Confirm that the seals on the trucks were intact on arrival at the quarantine station and then break the seals.
- (b) Ensure that the transport vehicles were cleaned and disinfected, using a specified treatment, before they left the quarantine station.
- (c) Ensure that the grooms accompanying the horses read and signed the ‘AQIS instructions for grooms’ form. (Presumably, this was a reference to either document D, ‘Groom authorisation to enter the AQIS quarantine facility’¹⁸⁶, or document E, ‘Post arrival quarantine instructions for grooms’¹⁸⁷, in Attachment 1 to the Work Instruction, although only the

¹⁸³ AQIS.0001.001.0025.

¹⁸⁴ AQIS.0001.001.0011 at 0016–0018.

¹⁸⁵ Deficiencies with the Live Horse Work Instruction are discussed more comprehensively in Chapter 10.

¹⁸⁶ AQIS.0001.001.0011 at 0026–0027.

¹⁸⁷ AQIS.0001.001.0011 at 0032.

former of those documents expressly provided a place for a groom's signature.)

- (d) Check, daily, the health record sheet on which the grooms were to record the horses' rectal temperature, taken twice daily at 12-hour intervals, and any health abnormalities—document H in Attachment 1 to the Work Instruction.¹⁸⁸ (The 'Information sheet for the post arrival quarantine of horses', which was document B in Attachment 1¹⁸⁹, stated that quarantine staff would also liaise with grooms daily regarding the horses' health.¹⁹⁰)
- (e) Inform the manager of the quarantine station of any abnormality in relation to the health of any of the horses and notify an AQIS veterinary officer of any health concerns.
- (f) Make approved veterinarians and farriers aware of the post-arrival quarantine requirements for veterinarians and farriers before they enter the quarantine station. (Those 'requirements' were not specified in the body of the Work Instruction, but presumably they were the requirements set out in document F in Attachment 1 to the instruction, 'Post arrival quarantine instructions for veterinarians and farriers'.¹⁹¹)
- (g) Ensure that any equipment used on the horses was correctly disinfected before it left the quarantine station.¹⁹²

AQIS veterinary officers were required to perform two veterinary inspections of the horses before their release from quarantine.¹⁹³ The first inspection, to be carried out within 48 hours of a horse's arrival, involved confirming the horse's identity, conducting a tick inspection, drawing blood for the national serum bank, and conducting a clinical health examination. The second inspection, to be carried out within 48 hours before release, was to enable the veterinary officer to assess the horse's fitness for release from quarantine.

Grooms were required to have the authorisation of the manager of the quarantine station and the import agent to enter the quarantine station. They were responsible for monitoring the horses' health, including taking the horses' temperature twice daily and observing whether there were any signs of ill health. The temperatures and any health abnormalities were to be recorded on the AQIS horse health record sheet. Grooms were also required to notify a quarantine officer if a private veterinarian or farrier was needed and to inform

¹⁸⁸ AQIS.0001.001.0011 at 0036.

¹⁸⁹ AQIS.0001.001.0011 at 0030–0031.

¹⁹⁰ AQIS.0001.001.0011 at 0030.

¹⁹¹ AQIS.0001.001.0011 at 0033.

¹⁹² AQIS.0001.001.0011 at 0019–0021.

¹⁹³ AQIS.0001.001.0011 at 0020–0021, 0034–0035.

the manager of the quarantine station of any health abnormalities. (They were not expressly or otherwise required to inform AQIS of elevated temperatures.) Further, the grooms were required to wear dedicated clothing and footwear, which were to remain in the quarantine station. They were also required to have a complete head-to-toe three-minute shower and to change into fresh clothing and footwear immediately before leaving the quarantine station. They were to acknowledge and agree to comply with these requirements by signing the ‘Groom authorisation to enter the AQIS quarantine facility’—document D in Attachment 1 to the Work Instruction.¹⁹⁴

The import agent was also required to sign the ‘Groom authorisation’ form to confirm that he or she had fully explained the AQIS requirements to the groom and had instructed the groom to comply. The import agent also acknowledged the following, which, as the evidence showed, was an empty threat:

I understand that AQIS will audit compliance with the conditions listed above. Detection of non-compliance with the above conditions will result in increased auditing or eviction of the groom from the AQIS quarantine facility. I will be responsible for any costs incurred relating to increased auditing of grooms.¹⁹⁵

(The Work Instruction does not otherwise refer to the auditing by AQIS of the grooms’ compliance with AQIS requirements, other than perhaps in respect of the recording of temperatures.)

As with grooms, private veterinarians and farriers were required to obtain the authorisation of the manager and the import agent to enter the quarantine station, were required to wear dedicated clothing and footwear while in contact with the horses, and were to ‘shower out’. Any horse equipment had to remain in the quarantine station for the duration of the quarantine or be disinfected by AQIS staff before removal. Private veterinarians and farriers were bound to obtain permission from AQIS before treatment and to provide details, on the AQIS horse health record, of any abnormalities in the horse’s health and any diagnosis made or treatments given.¹⁹⁶

The Live Horse Work Instruction did not expressly require AQIS staff (or anyone else) to take steps to ensure that private veterinarians and farriers were complying with those procedures. Mr Ironside’s evidence was that, where there was a requirement for a person other than a quarantine officer to do something,

¹⁹⁴ AQIS.0001.001.0011 at 0026.

¹⁹⁵ AQIS.0001.001.0011 at 0027.

¹⁹⁶ AQIS.0001.001.0011 at 0033.

it was implicit that AQIS staff were to enforce such a requirement.¹⁹⁷
Dr Widders appears to have been of a similar view.¹⁹⁸

The draft Operations Manual

It will be recalled that the Operations Manual was not finalised before the outbreak of equine influenza in Australia in August 2007.

The requirements of the draft Operations Manual provided for a stronger biosecurity regime than that provided by the Live Horse Work Instruction in a number of respects. But they were, as it turned out in many instances, even less than aspirations. Among the requirements were the following:

- (a) AQIS management was to conduct a system review (to determine whether the procedures designed to assure quality were appropriate or in need of improvement) and an internal audit (to seek to verify that approved procedures and work instructions were being followed) at least once during, and then after, each period of post-arrival quarantine, with all findings and any corrective actions being documented.¹⁹⁹
- (b) The owner or transport agent was responsible for ensuring that all people working in the quarantine facility were familiar with the principles of quarantine and the procedures designed to ensure quarantine security and containment.²⁰⁰
- (c) Entry of all people into the quarantine station was to be recorded, and 24-hour security was to be maintained around the perimeter of and within the station.²⁰¹
- (d) All people entering and leaving the quarantine station were to use a foot bath containing an approved disinfectant such as Virkon™.²⁰²
- (e) The premises were to include amenities to allow personnel to practise an appropriate standard of personal hygiene and decontamination.²⁰³
- (f) Documents containing standard operating procedures were to be handed to authorised persons. Those procedures provided information about the actions required for cleaning and disinfection of trucks²⁰⁴ and

¹⁹⁷ T350–T351.

¹⁹⁸ T1198–T1199

¹⁹⁹ AQIS.0001.001.0080 at 0084 and 0128.

²⁰⁰ AQIS.0001.001.0080 at 0088.

²⁰¹ AQIS.0001.001.0080 at 0092, 0101 and 0104.

²⁰² AQIS.0001.001.0080 at 0092.

²⁰³ AQIS.0001.001.0080 at 0092.

²⁰⁴ AQIS.0001.001.0080 at 0098.

equipment²⁰⁵; personal decontamination²⁰⁶; security²⁰⁷; the entry and exit of private veterinarians²⁰⁸, farriers and grooms²⁰⁹, and emergency maintenance staff and contractors²¹⁰; and cleaning and disinfection of premises after release of the horses.²¹¹

- (g) Cleaning and disinfection of trucks and equipment were to be in accordance with specified procedures, including the disinfection of any area inside the cabin that was potentially infected.²¹² (The Live Horse Work Instruction required the cleaning and disinfection of transport vehicles but did not get into the detail stated in the draft Operations Manual.)
- (h) Before entering the quarantine station private veterinarians and farriers were to sign a form that recorded their consent to comply with specified AQIS requirements.²¹³ The requirements were largely those included in the instructions documents for private veterinarians and farriers contained in Attachment 1 to the Live Horse Work Instruction.
- (i) The drivers of the vehicles transporting the horses to the quarantine station were to sign a declaration that the horses had been brought to the station by the most direct route and without stops on the way.²¹⁴
- (j) AQIS officers were required to sign a declaration relating to the arrival, unloading, cleaning and disinfection of the transport vehicle that brought the horses to the quarantine station.²¹⁵

The first requirement—the conduct of a review—was never met. The third requirement could never have been complied with because strict, fairly limited business hours were kept at Eastern Creek. The eighth requirement was ignored. Those that were complied with were complied with incompletely or irregularly.

²⁰⁵ AQIS.0001.001.0080 at 0099.

²⁰⁶ AQIS.0001.001.0080 at 0100.

²⁰⁷ AQIS.0001.001.0080 at 0101.

²⁰⁸ AQIS.0001.001.0080 at 0104.

²⁰⁹ AQIS.0001.001.0080 at 0106.

²¹⁰ AQIS.0001.001.0080 at 0108.

²¹¹ AQIS.0001.001.0080 at 0111.

²¹² AQIS.0001.001.0080 at 0098.

²¹³ AQIS.0001.001.0080 at 0116 and 0127.

²¹⁴ AQIS.0001.001.0080 at 0119.

²¹⁵ AQIS.0001.001.0080 at 0120.

Documents produced at Eastern Creek

The locally produced documents in use at Eastern Creek immediately before the equine influenza outbreak were as follows.

The 'Groom induction checklist & induction record'

The 'Groom induction checklist & induction record'²¹⁶, updated in March 2007, included a statement that the document was for 'grooms who work at Eastern Creek without continuous supervision'. It contained a checklist of items relating generally to occupational health and safety and AQIS requirements of people at Eastern Creek. It did not specify requirements directed to the object of quarantine—biosecurity—beyond requiring the signing of the visitors book on entry to and when leaving the quarantine station. The document contained spaces for the 'new employee' (that is, the groom) and the 'person who provides training' (the AQIS officer) to initial against each item included in the checklist. To say that any AQIS officer actually provided training would be an overstatement.

The 'Authorisation for groom to enter Eastern Creek Post Entry Quarantine Station'

The groom authorisation document²¹⁷ differed from the authorisation document contained in Attachment 1 to the Live Horse Work Instruction in that it included the following conditions:

- (a) The groom must sign in and sign out on each occasion he or she entered and left the station.
- (b) The groom was to comply with all instructions and directions issued by station management.
- (c) Each horse's temperature was to be recorded on the stable door—as opposed to in the AQIS horse health record sheet, as required by the Live Horse Work Instruction.
- (d) Any abnormalities in the health of a horse and any diagnoses or treatments were to be reported to management and set out in detail on the horse's health record by the senior groom.
- (e) The groom must adhere to the conditions of 'post-arrival quarantine procedures' and the 'code of conduct', as implemented by AQIS and the import agent. (On the evidence before the Inquiry, there were no documents clearly meeting this description, and there was no consensus as to what these conditions were.)

²¹⁶ AQIS.1000.003.0045.

²¹⁷ AQIS.1000.003.0050.

- (f) The groom was bound to report any security incident or concern to Eastern Creek staff.

The groom authorisation document also included, as additional requirements for senior grooms, that they ‘ensure’ that:

- (a) Grooms in their charge signed in and signed out on each occasion they entered and left the station.
- (b) No unauthorised visitors were allowed in the horse facility.
- (c) Requests for all visitors were to be made to station management in advance. (What was to happen if a horse at Eastern Creek took ill out of office hours or urgent veterinary attention was necessary was not the subject of this document.)
- (d) Veterinarians and farriers who were required to attend horses were the responsibility of the senior grooms while they were on the station premises. They had to sign the visitors book in the administration office if they attended during office hours or the grooms register if they attended out of hours.

This groom authorisation document did not make clear who was a ‘senior groom’, and there was no common understanding about that. For example, Mr Hankins understood that it meant the IRT (International Racehorse Transport) senior groom²¹⁸, whereas Ms Pauline Cushing, (the IRT senior groom for part of the August 2007 post-arrival quarantine, understandably did not consider herself responsible for the actions of any grooms not employed or contracted by IRT.²¹⁹

Further, the document did not include the ‘Authorisation by importing agent’ section that appears in the authorisation document in the Live Horse Work Instruction.

The ‘Operating procedures for horses’

The ‘Operating procedures for horses’ document²²⁰ was styled as an information sheet for grooms, veterinarians, farriers and drivers and began with a warning about equine influenza. Its content largely accorded with that of the Live Horse Work Instruction, although it also contained the following:

²¹⁸ T2228.

²¹⁹ T1502–T1503.

²²⁰ AQIS.0001.001.0056.

- (a) Grooms were prohibited from contact with horses outside the quarantine station during the post-arrival quarantine period.²²¹
- (b) The import agent or groom was to notify AQIS of arrangements for attendance by private veterinarians: prior notice was required for visits during office hours; out-of-hours attendance was to be notified on the following business day.²²²
- (c) Grooms, farriers and private veterinarians performing non-elective services were required to complete documentation before entering the Quarantine Station.²²³ (No further description of the ‘documentation’ was included.)
- (d) People issued keys and access cards for the Quarantine Station were not to give those keys or access cards to anyone else.²²⁴

According to Ms Christesen, this document had been in use at Eastern Creek since before June 2006 and was given to people visiting the station and having contact with horses as part of their responsibilities there.²²⁵ Mr Hankins said it had been in existence for some time and that he had been told by Ms Christesen that it was used as part of the groom induction.²²⁶ In his evidence, Mr Ironside described it as ‘more of an information document’ than an obligatory document. That said, it was not recognised by Mr Jim Carey, Mr Tetsuhito Hirose, Mr Julian Cornter, Mr Gabriel Walsh, Dr Greg Nash and Dr Widders. Ms Cushing had seen it but only because she was given a copy after the outbreak.²²⁷

The ‘AQIS expectations of horse grooms at ECQS’

The ‘AQIS expectations of horse grooms at ECQS’ document²²⁸ was prepared by Mr Hankins in late July or early August 2007. It was directed exclusively at behaviour. In addition to its provision to each groom during induction, copies of it had been laminated and placed in each of the rooms and the common area in the grooms’ quarters before the August 2007 stallion intake.²²⁹

²²¹ AQIS.0001.001.0056 at 0058.

²²² AQIS.0001.001.0056 at 0058.

²²³ AQIS.0001.001.0056 at 0058.

²²⁴ AQIS.0001.001.0056 at 0059.

²²⁵ T338.

²²⁶ T1912.

²²⁷ T841, T752, T514, T918, T1557, T1148, T1510.

²²⁸ AQIS.0002.014.0044.

²²⁹ WIT.AQIS.012.0001 at para. 49.

The visitors book

There was a visitors book in the grooms' quarters²³⁰ and another in the Animal Quarantine Office.²³¹ The book in the office was available only during office hours.²³²

The visitors books have spaces for completion of the details of a visitor's name and address, the relevant animal's name or reason for the visit, and the date and time of entry and exit. The evidence suggests that the book was not carefully kept or checked and not even always readily accessible.

The horse procedures document

The horse procedures document²³³ had been prepared in June 2007 by Ms Christesen, who was principally responsible for looking after horse intakes at Eastern Creek. Ms Christesen had been asked to prepare a list of the procedures involved in 'landing' horses at the Quarantine Station²³⁴, so that other AQIS officers would have information about how to carry out her job while she was on leave from early July 2007.²³⁵ The document does not deal with the induction of grooms: Ms Christesen's explanation for that omission was that the people who would fill her role knew about the groom induction part of the process, and she was trying to include aspects of the process that might be overlooked.²³⁶

The checklist of cleanliness for horses

The checklist of cleanliness for horses²³⁷ was prepared by Ms Christesen as a checklist of matters she was concerned about in relation to the equine enclosure, to ensure the enclosure's cleanliness during and at the end of a quarantine period.

Importers' horse health records

Importers' horse health records²³⁸ were produced and maintained by the grooms at the Quarantine Station, rather than by AQIS officers. They contained records of veterinary treatment administered to a horse. Mr Hankins' evidence was that these records were provided to AQIS, to be filed at the end of the quarantine period.

²³⁰ AQIS.1000.037.0001.

²³¹ AQIS.1000.036.0001.

²³² WIT.AQIS.010.0001 at para. 76.

²³³ AQIS.0001.001.0049.

²³⁴ WIT.AQIS.012.0001 at para. 47.

²³⁵ WIT.AQIS.010.0001 at para. 107.

²³⁶ T1435–T1436.

²³⁷ DAFF.0001.611.0726; T1447–T1448.

²³⁸ See, for example, AQIS.1000.012.0001, DAFF.0001.100.0608, IRT.0001.004.0050.

6.1.3 Procedures for the clearance of horses and associated documentation

The arrival of the horses

In relation to the procedures that were actually being followed at Sydney (Kingsford Smith) Airport immediately before the outbreak, Dr Widders gave the following evidence:

The Veterinary Officer attending the airport will usually confirm the cleanliness of the trucks, provide overalls for the truck drivers to wear during the unload at the airport and at ECQS, check the details of the horses that have arrived, collect the official health certificates and confirm that there is a certificate for each horse, monitor personnel in the Livestock Transfer Facility (LTF) and their contact with horses and remind them of the need to shower and wash clothes before contacting horses outside quarantine, monitor tack used with the horses during unloading and ensure that it is either disinfected or goes with the horse to ECQS, and inquire of the travelling vet or groom regarding the health of the horse during the flight. Once the horses are loaded into the trucks, the doors are sealed for transport to ECQS, and the AQIS vet will call the duty officer at ECQS to advise when the horse trucks leave the LTF and the number of trucks involved.²³⁹

It is clear that these procedures extend beyond those specified in the Live Horse Work Instruction. In some respects, however, the procedures required by the Work Instruction were not being followed. First, AQIS officers were not ensuring that only personnel relevant to the unloading and the transport of the horses were present. As is discussed in Section 10.2.1, the AQIS officers queried whether they had the power to prevent people from entering the livestock transfer facility. Secondly, AQIS officers were not conducting a general health check of each horse and confirming its identification against the paperwork; instead, these were taking place at Eastern Creek, usually two to three days after the horse's arrival—although the health check actually carried out was not a full clinical examination, as required by the Live Horse Work Instruction.²⁴⁰

The review of documentation

The import documentation collected at the airport was taken to the AQIS office at Rosebery, where one of the contracted veterinarians would review it to ensure that it complied with the conditions of the import permit. The documentation considered in the review usually consisted of the original health certificates and the customs declaration and air waybill, but it might also include vaccination certificates, results of pathology tests, a certificate

²³⁹ WIT.AQIS.006.0001 at paras 19–20.

²⁴⁰ T1209 (Widders).

following inspection of the horse at the overseas airport or a certificate of equivalence.²⁴¹

The review could take place up to five days after a horse's arrival.²⁴² Any questions arising from the review were discussed with Dr Widders or Dr Yan Hee Song and, if necessary, with officers (such as Dr Ainslie Brown) in the national program in Canberra.²⁴³

The 'Coversheet for document clearance of live horses'²⁴⁴ contained in Attachment 1 to the Live Horse Work Instruction was not used in this process. Instead, a document entitled 'Veterinary report from audit of import documentation'²⁴⁵ was used.

6.1.4 Procedures at Eastern Creek Quarantine Station

Until the time of the equine influenza outbreak Ms Christesen was the Eastern Creek quarantine officer principally responsible for the duties associated with horses.²⁴⁶ She had had that role from the time she joined the Eastern Creek workforce in June 2006²⁴⁷ and was supervised by the Animal Quarantine Supervisor (Ms Eddy until February 2007; Mr Holloway after that) and the Manager of the Quarantine Station (Mr Hamid until March 2007; Mr Hankins after that).²⁴⁸

As described earlier, before the equine influenza outbreak Ms Christesen, Mr Holloway and Mr Hankins did not understand that they needed to comply with the Live Horse Work Instruction or the draft Operations Manual at Eastern Creek.²⁴⁹ Instead, the procedures being followed with horses before the outbreak were as follows.

Access to the quarantine station

No security guard was present at Eastern Creek Quarantine Station²⁵⁰, and security measures consisted mainly of fencing and locked gates.²⁵¹ Grooms, private veterinarians, caterers and cleaners were given access cards for the

²⁴¹ WIT.AQIS.018.0001 at para. 6; WIT.AQIS.025.0001 at para. 5.

²⁴² T1025–T1026 (Widders).

²⁴³ WIT.AQIS.018.0001 at paras 9–10; WIT.AQIS.025.0001 at para. 8; T1028–T1030 (Widders).

²⁴⁴ AQIS.0001.001.0025.

²⁴⁵ See, for example, AQIS.1000.028.0006.

²⁴⁶ T1922.

²⁴⁷ WIT.AQIS.010.0001 at para. 33.

²⁴⁸ WIT.AQIS.012.0001 at para. 1.

²⁴⁹ T1923; T2551; WIT.AQIS.010.0001 at para. 111.

²⁵⁰ T2555 (Holloway).

²⁵¹ WIT.AQIS.012.0001 at para. 108.

main gate²⁵², and grooms, some veterinarians and the caterers had keys to the gates to the equine facility.²⁵³ It was therefore possible for visitors to gain access to the horse area without the knowledge of AQIS officers and for people with keys to gain entry without the knowledge of the grooms. Records were kept of all access swipe cards and keys issued to grooms and veterinarians.²⁵⁴

No rules for the authorisation of visitors to the quarantine station appear to have been in place or, if there were rules, they were not enforced. There also appears to have been no monitoring of grooms' and others' movements in and out of the station or of the book supposedly kept to record those movements.²⁵⁵ Ms Christesen believed the grooms would inform her or Mr Holloway if a private veterinarian or farrier were to enter the station during office hours but not if they were to do so outside office hours.²⁵⁶ This belief could be no more than a wish or a hope.

Arrival procedures

The procedures for the arrival of horses at the Quarantine Station, including the cleaning and disinfection of departing transport vehicles²⁵⁷, were generally consistent with those set out in the Live Horse Work Instruction and the local operating procedures document, although they were perhaps not as stringent as those required by the draft Operations Manual. The Operations Manual was not being complied with in the following respects. First, AQIS officers were not regularly signing the declaration in relation to the arrival, unloading, cleaning and disinfection of trucks. Secondly, no one appears to have been following the requirement (which now appears to be a fairly elementary precaution) that the cabins of trucks in which grooms or their equipment had travelled from the airport to the station be disinfected.

Induction of grooms

On the day of grooms' arrival at Eastern Creek an AQIS officer (usually but not always Ms Christesen) would conduct an induction with each of the grooms residing at the station for the duration of the post-arrival quarantine. When Ms Christesen was conducting the induction she used four documents:

- (a) the 'Groom induction checklist & induction record',²⁵⁸

²⁵² WIT.AQIS.007.0001 at para. 21.

²⁵³ T1992 (Hankins).

²⁵⁴ WIT.AQIS.012.0001 at para. 90.

²⁵⁵ For example, see T1437 (Christesen).

²⁵⁶ T1417–T1418.

²⁵⁷ WIT.AQIS.010.0001 at paras 41–64; T1443; WIT.AQIS.012.0001 at para. 69.

²⁵⁸ AQIS.1000.003.0045.

- (b) the ‘Authorisation for groom to enter Eastern Creek Post Entry Quarantine Station’,²⁵⁹
- (c) the ‘Operating procedures for horses’,²⁶⁰
- (d) the ‘AQIS expectations of horse grooms at ECQS’ document.²⁶¹

In the induction Ms Christesen would give the operating procedures document to ‘first-time’ grooms only.²⁶² She would give the groom induction checklist and the groom authorisation to each groom, although she would only explain the contents to those attending the station for the first time.²⁶³ Her evidence was that she would still, however, make sure the experienced grooms filled in the documents and signed them²⁶⁴, although she had no certain way of knowing whether a groom was visiting for the first time or not. She did not know Mr Carey, for example, and could not say whether she gave him an explanation or any documents at all.²⁶⁵ Under cross-examination, she agreed that with respect to experienced grooms she was acting on the understanding that the person who had first gone through the groom authorisation and the groom induction checklist with the groom had done so in detail.²⁶⁶

In respect of the groom authorisation document, Ms Christesen’s evidence was that she did not know whether a horse health record existed, and in an induction she would therefore not refer to the requirement that the senior groom report health matters on such a record.²⁶⁷ She could not find any documents matching the description of ‘conditions of post-arrival quarantine procedures’ and ‘code of conduct’. In an induction, she regarded these as behavioural matters (like the prohibition on alcohol), rather than procedures relating to biosecurity.²⁶⁸

The ‘expectations of grooms’ document was provided to grooms for the first time at the inductions in August 2007.²⁶⁹

Mr Hankins’ evidence was that he considered the groom induction checklist superfluous and he did not require it to be used in inductions.²⁷⁰ He confirmed

²⁵⁹ AQIS.1000.003.0050.

²⁶⁰ AQIS.0001.001.0056.

²⁶¹ AQIS.0002.014.0044.

²⁶² T1431.

²⁶³ T1434.

²⁶⁴ T1460.

²⁶⁵ T1446, T1449, T1451.

²⁶⁶ T1460.

²⁶⁷ T1451.

²⁶⁸ see T1454–T1455.

²⁶⁹ T1467 (Christesen).

²⁷⁰ T1955.

that the induction consisted of going through the induction forms and informing or reminding the grooms, as the case may be, of their responsibilities while at the station.²⁷¹

Monitoring of grooms

Ms Christesen did not take steps to ensure that the grooms were showering and changing their clothes before leaving the station. She had apparently not thought it part of her responsibility to do that or to insist that they change their clothes.²⁷² Mr Hankins acknowledged that there was no system for ensuring and directly monitoring showering by grooms before they left the station²⁷³ and that no staff were dedicated to monitoring and supervision in respect of horses.²⁷⁴ Mr Hankins must have known that there could be no monitoring of grooms out of business hours because the station was not staffed at these times.

Private veterinarians and farriers

There was no system for the induction of private veterinarians and farriers by AQIS.²⁷⁵ Ms Christesen did not make private veterinarians and farriers aware of post-arrival quarantine requirements²⁷⁶ and did not require them to complete and sign an authorisation or any other form before entering the station.²⁷⁷ Mr Hankins accepted this because the veterinarians were generally familiar with AQIS's requirements of them.²⁷⁸

Ms Christesen's evidence was that generally she had nothing to do with the private veterinarians and farriers who entered the station. The veterinarians would deal directly with the station manager if there were any problems and would otherwise deal with the groom.²⁷⁹ Mr Hankins seemed to have no detailed knowledge about this and did not seek it.²⁸⁰

Ms Christesen believed that the veterinarians left their protective clothing at the station and that they showered²⁸¹ before leaving, even though her observations did not confirm that. Mr Hankins expected that the senior groom for IRT would

²⁷¹ WIT.AQIS.012.0001 at para. 73.

²⁷² T1439.

²⁷³ T1957.

²⁷⁴ T1961.

²⁷⁵ WIT.AQIS.012.0001 at paras 81, 83; T1903.

²⁷⁶ T1418.

²⁷⁷ WIT.AQIS.010.0001 at paras 91–92; T1430.

²⁷⁸ WIT.AQIS.012.0001 at para. 81.

²⁷⁹ WIT.AQIS.010.0001 at paras 91–92; T1446–T1447.

²⁸⁰ WIT.AQIS.012.0001 at paras 82–83; T1940.

²⁸¹ T1427–T1428.

have brought to the attention of AQIS staff any non-compliance with the requirements for protective clothing and showering before departure.²⁸²

Other visitors

Mr Holloway's evidence was that Eastern Creek Quarantine Station is attended by maintenance contractors who are required to be near or in the horse compound. He was unsure if these people had ever received any instructions or supervision when doing so. He did not give them instructions and did not see anyone else giving them instructions. Further, he had not seen any document containing instructions for maintenance contractors.²⁸³ Mr Hankins' evidence was that it was usually arranged that access by maintenance contractors would occur during business hours, and entry to the station was gained via the station office under the supervision of staff.²⁸⁴ He said caterers and cleaners who went to the horse area received no instruction in relation to biosecurity. They were not considered a biosecurity risk because their activities gave them no reason to come into direct contact with the horses.²⁸⁵

Monitoring of horses' health

An AQIS veterinary officer, usually Dr Widders, saw each horse at Eastern Creek Quarantine Station, normally within three days of its arrival, in order to perform a veterinary inspection. The inspection consisted of confirmation of the horse's identity against a graphic in the health certificate, assessment of the horse's health and condition by observation, discussion with its groom, a review of the twice-daily temperature record, and collection of a blood sample for the national serum bank.²⁸⁶ A clinical health examination of the horse to the extent required in the Live Horse Work Instruction was not carried out and had not been carried out for some years.²⁸⁷ Dr Widders considered that an examination of the kind required in the Work Instruction would not offer any quarantine advantage over the examination that was being conducted.²⁸⁸ His evidence was that he had neither the time nor the resources to perform full clinical examinations of the horses at Eastern Creek.²⁸⁹

Ms Christesen checked that the horses' temperatures were being recorded on the stable doors but did not actually read or record them.²⁹⁰ She was not

²⁸² WIT.AQIS.012.0001 at para. 82.

²⁸³ T2538.

²⁸⁴ WIT.AQIS.012.0001 at para. 71.

²⁸⁵ WIT.AQIS.012.0001 at para. 86.

²⁸⁶ WIT.AQIS.006.0001 at para. 21.

²⁸⁷ T1209 (Widders).

²⁸⁸ DAFF.1001.004.0273.

²⁸⁹ T1209.

²⁹⁰ T1415.

checking any document that might answer the description of an AQIS health record.²⁹¹ Mr Hankins' evidence was that AQIS received from the senior IRT groom a horse health record sheet for the file at the end of the post-arrival quarantine period but that AQIS did not keep a daily record of a horse's temperature. Further, AQIS did not monitor the health of the horses daily.²⁹²

Usually, within two to three days before the scheduled end of the post-arrival quarantine period, an AQIS veterinary officer would again inspect the horse, review its temperatures, and discuss with the grooms the horse's health during quarantine. If no disease concerns were identified, the horse would be approved for release.²⁹³

Recommendation

I recommend that the operating procedures require that the manager of a quarantine station be responsible for ensuring that a written report on compliance with procedures is prepared and reviewed daily and that any non-compliance and corrective action are recorded.

6.1.5 Procedures at Spotswood Quarantine Station

The procedures that were in operation at Eastern Creek Quarantine Station immediately before the equine influenza outbreak in August 2007 can be contrasted with those in operation at Spotswood Quarantine Station. Generally, a tighter biosecurity regime existed at Spotswood.

In August 2007 the manager of Spotswood was Mr Wayne Gundry and the assistant manager was Mr Angelo Ravaneschi. Each of these men had been employed at that station for more than 18 years. Mr Gundry gave evidence about the procedures at August 2007. The two men's experience in the management of a quarantine station stood in contrast with the inexperience of those responsible for the management and conduct of Eastern Creek.

Mr Gundry was aware of both the Live Horse Work Instruction and the draft Operations Manual and had had some involvement with their preparation. He gave oral evidence that, at the beginning of August 2007, he did not understand the Work Instruction to be an operational document that applied to Spotswood because it was 'purely an import clearance type document'.²⁹⁴ He was not

²⁹¹ T1416–T1417, T1422.

²⁹² T1946.

²⁹³ WIT.AQIS.006.0001 at para. 22.

²⁹⁴ T3189. This evidence is preferred to para. 22 of his written evidence (WIT.SPOT.001.0001) because it was, in my view, a considered response to questions put to him.

certain whether or not it was a finalised document.²⁹⁵ Nevertheless, some of the documents contained in the Work Instruction were being used at Spotswood.

Mr Gundry considered the Operations Manual to be a draft only. Even so, he regarded it as a guide to the procedures to be followed at Spotswood.²⁹⁶ Additionally, he considered Quarantine Operational Notice 1999/108²⁹⁷ to be a policy document that was applicable at Spotswood. The policy documents relating to the Sydney 2000 Olympics were also part of the material used by Mr Gundry, although he did not regard them as mandatory.²⁹⁸

Access to the Quarantine Station

Before the outbreak of equine influenza there were no security guards at Spotswood Quarantine Station. The front gate was locked 24 hours a day²⁹⁹, and all visitors were required to sign the visitors book at the main entry gate.³⁰⁰

Entry and exit by the grooms were not supervised.³⁰¹ The grooms were given a key and were expected to sign the visitors book on entry and exit. Veterinarians and farriers were not given a key.³⁰² Visitors were allowed access outside business hours only in an emergency. Mr Ravaneschi lived on site at Spotswood, and any arrangements for out-of-hours access by veterinarians were made with him.

Arrival procedures

After the horses were unloaded the transport vehicles were cleaned using a fire hose and then disinfected with Virkon™, either by Mr Gundry or by Mr Ravaneschi.³⁰³ Until the outbreak vehicle drivers were not required to shower before leaving the station.³⁰⁴ Although the drivers wore overalls at the airport and AQIS staff cleaned the vehicles, Mr Gundry agreed that the failure to ensure that drivers also showered out was one of the main defects in procedures at Spotswood.³⁰⁵

²⁹⁵ T3189–T3190.

²⁹⁶ T3189.

²⁹⁷ AQIS.0002.016.0955.

²⁹⁸ AQIS.0002.016.0959.

²⁹⁹ T3138 (Gundry).

³⁰⁰ T3175 (Gundry).

³⁰¹ T3175 (Gundry).

³⁰² T3254 (Gundry).

³⁰³ T3155–T3156 (Gundry).

³⁰⁴ T3202, T3231 (Gundry).

³⁰⁵ T3202 (see also T3231–T3232).

Induction and monitoring of grooms

Groom induction generally took place the day before the horses arrived at Spotswood. It was the practice of Mr Gundry or Mr Ravaneschi to explain the rules to the grooms, who then would usually sign a groom authorisation form. The groom authorisation form used was the one in the Live Horse Work Instruction, with inconsequential amendments to make it specific to Spotswood.³⁰⁶ The import agent's part of the authorisation was also completed, often before the groom induction.³⁰⁷ The groom authorisation form was not signed on every occasion that a groom came to Spotswood as many grooms were already familiar with the requirements.³⁰⁸

A groom's attention was sometimes also drawn to the 'Instructions for grooms' document³⁰⁹ displayed in the main horse stables, the office area and the change room.³¹⁰ That document appears to have been modelled on a document prepared for the Sydney 2000 Olympics.³¹¹

Entry and exit by the grooms were on an honour system, and they were not supervised whilst at the station.

Induction and monitoring of private veterinarians and farriers

Private veterinarians and farriers were required to sign an authorisation on entry to the quarantine station. The authorisation was in the form contained in the Operations Manual³¹²; it was, however, not signed on every occasion that a veterinarian attended, particularly if the same veterinarian attended frequently.³¹³ An 'Instructions for veterinarians and farriers' document³¹⁴ was also displayed on a pin board in the main horse stables, where the veterinarians did their paperwork.³¹⁵ The document was in the form of the instructions form included in the attachment to the Live Horse Work Instruction, with minor alterations to make it particular to Spotswood.

Mr Gundry or Mr Ravaneschi supervised the visits of new veterinarians. They were flexible with veterinarians who visited regularly and expected them to be familiar with requirements.³¹⁶ Farriers rarely came to Spotswood—perhaps

³⁰⁶ AQIS.0002.016.0952; T3149–T3150.

³⁰⁷ For example, CBHT.0001.001.0135, DAFF.0001.0217.0345.

³⁰⁸ T3172 (Gundry).

³⁰⁹ AQIS.0002.016.0965.

³¹⁰ T3165–T3166 (Gundry).

³¹¹ T3226; AQIS.0002.016.0959 at 0960.

³¹² AQIS.0002.016.0966; T3154–T3155 (Gundry).

³¹³ T3172–T3173 (Gundry).

³¹⁴ AQIS.0002.016.0964.

³¹⁵ T3154 (Gundry).

³¹⁶ T3177, T3231 (Gundry).

only twice annually.³¹⁷ When farriers did visit, Mr Gundry or Mr Ravaneschi would supervise them for their entire time at the station. The supervision of veterinarians and farriers included ensuring that they showered before departure. Mr Gundry or Mr Ravaneschi also disinfected any equipment used.³¹⁸

Monitoring of horses' health

Horse health record sheets were provided by AQIS so that the grooms and private veterinarians could record details of horses' temperatures, clinical signs and any treatments given. The health records were kept in the change room at the entrance to the main stables.³¹⁹ An AQIS veterinarian would review the records when he or she visited Spotswood, generally on the horses' arrival and again just before release. Spotswood staff would also look at the temperature charts on two or more occasions during the 14 days of post-arrival quarantine.³²⁰

6.2 Procedures in relation to crew and passengers and personal baggage

At the beginning of August 2007 it was officers from the Airports Program performing airside (that is, on the tarmac) duties who were responsible for clearing the crew and passengers and their personal baggage arriving on flights carrying horses.³²¹ The 'clearance' process included determining whether any material presenting a quarantine risk might be present and, if so, taking appropriate steps, such as disinfection of articles that might be of concern.

The documented procedures for quarantine officers carrying out the clearance were at that time contained in the following documents:

- (a) a national AQIS work instruction entitled Clearance of Non-Regular Passenger Transport Aircraft Arriving at First Ports of Entry into Australia³²²
- (b) a national AQIS work instruction entitled Baggage Examination³²³

³¹⁷ WIT.SPOT.001.0001 at para. 19, T3169–T3170, T3231 (Gundry).

³¹⁸ WIT.SPOT.001.0001 at para. 18.

³¹⁹ T3226 (Gundry).

³²⁰ T3226–T3227 (Gundry).

³²¹ DAFF.0001.803.0017 at 0018.

³²² AQIS.1001.001.0001.

³²³ AQIS.1002.002.0025.

- (c) a Sydney document entitled Sydney Kingsford Smith Airport Airside—a practical and easy to follow guide to the tarmac at Sydney Airport³²⁴
- (d) written instructions in relation to ‘used footwear’³²⁵ and ‘horse equipment—used’³²⁶ contained in AQIS’s ICON database.

The Clearance of Non-Regular Passenger Transport Work Instruction related to ‘all non-RPT aircraft’³²⁷, which included freighters carrying horses. No specific procedures were included in the Work Instruction relating to the process to be followed for passengers (these being any grooms) and their luggage on aircraft carrying horses. The Baggage Examination Work Instruction did not provide specific procedures for grooms’ baggage, but instead dealt with the procedures for baggage examination generally.

The Sydney Airport guide stated that quarantine officers were required airside, along with customs officers, to screen incoming passengers and crew arriving on freighter aircraft, because these people normally did not go through the usual channels in the terminals.³²⁸ Again, there were no specific procedures set out in respect of grooms.

The instructions in the ICON database in relation to used footwear were to do with footwear generally, rather than with footwear that might have been in contact with or in proximity to horses. The instructions dealt with the cleaning of contaminated footwear before releasing it from quarantine.

The instructions in the ICON database in relation to used horse equipment recorded that equine influenza was one of the main animal diseases of quarantine concern. The instructions made disinfection mandatory (for example, with Virkon™ or by means of gamma irradiation) for it.

A number of quarantine officers in the Airports Program gave evidence about the clearance of freighters carrying horses³²⁹, and documents about that were received in evidence. It appears that the procedures being followed at the beginning of August 2007 were generally as follows.

The quarantine officer would board the aircraft with an officer from the Australian Customs Service. They would check that disinsection of the aircraft had been carried out and clear the crew and any passengers and their equipment

³²⁴ AQIS.1002.002.0052.

³²⁵ DAFF.0001.670.0008.

³²⁶ DAFF.0001.670.0001.

³²⁷ AQIS.1001.001.0001 at 0002.

³²⁸ AQIS.1002.002.0052 at 0057.

³²⁹ WIT.AQIS.002.0001, T934 ff; WIT.AQIS.003.0001, T706 ff (Gallagher); WIT.AQIS.004.0001, T701 ff (Pedagandham); WIT.AQIS.022.0001; WIT.AQIS.023.0001; WIT.AQIS.024.0001; WIT.AQIS.020.0001.

and luggage. If there were shoes or horse equipment in the grooms' luggage, the officer would determine whether they posed a quarantine risk and, if so, remove any visible contaminants and treat them with Virkon™. Equipment going to the quarantine station was, however, not inspected. The shoes the grooms were wearing would be sprayed with Virkon™. This occurred on board the aircraft or at the livestock transfer facility. Ordinarily, the quarantine officer would go to the livestock transfer facility only if the consignment was large and it was more practical to clear the grooms' luggage and horse equipment there³³⁰ or if the grooms' luggage had been in the cargo hold.³³¹ There were, however, occasions when none of these inspections was carried out, either on the aircraft or elsewhere.

6.3 Procedures in relation to horse stalls

Immediately before the equine influenza outbreak officers of the Air Cargo Unit, within the Import Clearance Program, were responsible for dealing with the horse airstalls³³² once the horses were unloaded and the stalls had been brought out of the livestock transfer facility. A new system for cleaning the stalls was introduced on 3 August 2007³³³; this required the cleaning of all horse stalls by an 'approved quarantine contactor' at a 'quarantine-approved premise' outside the airport.³³⁴ Before that time, cleaning of the stalls had taken place at the airport. The new system entailed the following process.

Before the stall was removed from the airport, the contractor was required to wrap the bottom half of the stall with a film of clear plastic ('shrink-wrapping') in order to contain any gross contamination such as urine-soaked bedding or manure. An AQIS officer was required to inspect the shrink-wrapping of the stall and to give the contractor a 'movement direction'. The stall was then to be transported by the contractor to a quarantine-approved premise using an AQIS-approved route and to be cleaned in accordance with procedures agreed with AQIS. An AQIS officer was then required to attend the quarantine-approved premise to inspect the stall. If satisfied with the cleaning of the stall, the officer would then release the stall from quarantine.

³³⁰ WIT.AQIS.003.0001 at para. 16, T711 (Gallagher).

³³¹ WIT.AQIS.022.0001 at para. 27.

³³² A typical horse airstall is depicted in CI.0001.024.0001.

³³³ See generally WIT.AQIS.021.0001 at paras 15–17; AQIS.0001.002.0406; AQIS.0001.002.0411.

³³⁴ AQIS.0001.002.0411 at 0413.

7 Pre-export quarantine, arrival at the airport, and transport to a quarantine station, 3 to 8 August 2007

This chapter discusses the movement of horses from the time they entered pre-export quarantine until their arrival at Eastern Creek or Spotswood Quarantine Stations. Chapters 8 and 9 deal with events at Eastern Creek and Spotswood Quarantine Stations from the arrival of the respective consignments until equine influenza was diagnosed at Eastern Creek on 23 August 2007.

Between 3 and 8 August, 52 horses from Ireland, the United Kingdom, the United States and Japan went to Eastern Creek to undergo post-arrival quarantine. The horses arrived in six consignments, as Table 7.1 shows. Between 8 and 11 August nine horses from Japan (part of consignment 6) and 18 horses from the United States arrived at Spotswood Quarantine Station to undergo PAQ. The nine horses from Japan (three stallions and six mares) arrived at Spotswood on 8 August. The 18 horses from the United States were standardbred stallions; they arrived at Spotswood on 11 August.

Table 7.1 The six consignments arriving between 3 and 8 August 2007

	Consignment					
	1	2	3	4	5	6
Arrival date	03.08.07	04.08.07	07.08.07	07.08.07	07.08.07	08.08.07
Time of arrival	6.47 pm	12.00 noon	9.02 am	3.50 pm	4.04 pm	2.56 pm
No. of horses	3	12	16	5	12	13 ^a
Origin	US (Los Angeles)	UK	UK (10) Ireland (6)	US (Kentucky)	Ireland	Japan
Flight number	QF7558	SQ7296	DUB008	FX9512	MP9177	CX23/CX22

a. Nine to Spotswood, four to Eastern Creek.

Notwithstanding the scientific evidence that supports a finding that the horses from Japan that were transported to Sydney on 8 August introduced the equine influenza virus to Eastern Creek, this chapter identifies, in respect of each of the six consignments, the people who were involved in PEQ, who accompanied the horses by air, who might have had contact with them at the airport, who transported them to Eastern Creek, and who were involved in unloading them at Eastern Creek.

7.1 Consignment 1

Consignment 1 consisted of three general-traffic horses from the United States—Teddy Bear, a Welsh pony gelding; Fox & Firkin, an Irish draught colt; and Sheer Kingston, a thoroughbred gelding. Their importation for private owners was arranged by Crispin Bennett International Horse Transport Pty Ltd under import permit number IP07013647.¹

Under the conditions of the import permit, each of the horses had to be held in PEQ premises for 21 days immediately before export and during the four months before PEQ to have been vaccinated against equine influenza with an ‘approved inactivated vaccine’², either twice before and after an interval recommended by the manufacturer or once as a booster to a certified primary course of vaccination.³

Each of the horses underwent PEQ at Bruno De Berdt, Canyon Country, California, from 11 July to 2 August 2007. Table 7.2 shows the vaccination details for the horses.

Table 7.2 Consignment 1: vaccination details

Name of horse	Vaccine and date	Vaccine and date	Vaccine and date	Vaccine and date
Fox & Firkin	West Nile, Prestige II with Hovlogen (Rhino-flu)	31.01.07	Fluvac Innovator Dbl-E FT	08.07.07
Sheer Kingston	Fluvac Innovator Dbl-E FT	14.01.07	Fluvac Innovator Dbl-E FT	08.07.07
Teddy Bear	West Nile, EEW, Flu, Rhino, Tetanus	20.06.07	Fluvac Innovator Dbl-E FT	08.07.07

Note: Each of the horses was certified on its health certificate as being vaccinated as a booster to a certified primary course of vaccination.

There is evidence before the Inquiry in relation to the transport of these horses to Los Angeles International Airport, where they were loaded for carriage to Sydney on Qantas flight QF7558. The evidence is from Mr Peter Anderson, a flying groom contracted by Crispin Bennett International Horse Transport.⁴ On the day of the horses’ departure Mr Anderson attended the PEQ facility in Canyon Country. On entry there, he showered and changed his clothing, which was placed in a plastic bag and secured. Mr Anderson helped load the three horses into a vehicle. Lucerne hay and water were also loaded into the vehicle. Mr Anderson travelled with the horses to Los Angeles International Airport, about 65 kilometres away.

¹ CBHT.0001.001.0068.

² A vaccine registered or licensed by the government or an appropriate authority of the exporting country—CORR.0005.002.0056 at 0057.

³ CBHT.0001.001.0068 at 0074.

⁴ WIT.CBHT.004.0001.

On arrival at the airport, the horses were taken from the vehicle and were loaded, with the hay and water, into a single airstall. Mr Anderson was present throughout and stayed in the airstall with the horses as they were taken into the cargo hold. Each step was supervised by officials from the US Department of Agriculture. The flight left Los Angeles and flew to Honolulu, where it refuelled. The horses were not offloaded. The aircraft continued to Sydney (Kingsford Smith) Airport, arriving at about 7.00 pm on 3 August 2007.

After the aircraft landed in Sydney Mr Robert Dell Armi, a customs officer, boarded the aircraft to clear Mr Anderson and the crew for customs purposes.⁵ Mr Kevin Gallagher, a quarantine officer with the Airports Program, also boarded; he cleared Mr Anderson and the crew for quarantine purposes and then checked that the aircraft had been disinfected.⁶ Whilst on board the aircraft Mr Gallagher had a conversation with Mr Anderson, during which the groom confirmed that he had nothing to declare and did not have any horse-related material or equipment in his luggage. Mr Gallagher inspected Mr Anderson's shoes and found them to be clean. (It is probable that he also disinfected them with Virkon™.) Mr Anderson told Mr Gallagher he was going to the corral with the horses and that he had received written instructions to wash his clothes within a certain period. Mr Gallagher orally confirmed that this was the procedure. Mr Anderson subsequently went back into the airstall to accompany the horses off the aircraft.

Mr Gallagher said he was obliged to attend the transfer facility only if instructed to do so by his controller⁷, despite the potential contamination of grooms' shoes as a result of travelling inside the airstall. Mr Gallagher was aware that there was an AQIS veterinarian at the transfer facility and so released Mr Anderson because he did not think he posed a quarantine risk.

Qantas Freight was the ground handling agent for this flight. Although there was no evidence before the Inquiry to indicate whether the people involved in unloading the flight came into contact with horses in the 48 hours after providing freight services, the scientific evidence denies that the horses on this flight were the source of the equine influenza virus at Eastern Creek.

Mr Andrew Baudille was the Aero-Care officer controlling the livestock transfer facility. His task was to open and close the gates to allow vehicles, importers' representatives and AQIS personnel in and out of it.⁸

⁵ WIT.CUST.006.0001 at para. 3.

⁶ WIT.AQIS.003.0001 at paras 11–13.

⁷ T713–T714.

⁸ WIT.AERO.001.0001 at paras 11–14; SAC.0001.001.0099_R; AERO.0001.001.0061.

Doctor Yan Hee Song was the AQIS veterinary officer who performed quarantine clearance of the horses at the airport. Also present to assist in the unloading of the horses in consignment 1 was Ms Kim Maguire, a groom engaged at that time by Crispin Bennett International Horse Transport.⁹ The horses were to be transported from the airport to Eastern Creek in a vehicle driven by Mr Paul Watene of Sydney Horse Transport. Before the aircraft landed, Dr Hee Song had given Mr Watene a pair of overalls, which he donned. Ms Maguire was not given overalls. Dr Hee Song's evidence was that it was his practice to tell the importer's representative 'please take a shower and change your clothes after you leave the airport and before you come into contact with other horses'.¹⁰ Mr Anderson said Dr Hee Song also reminded him to shower before coming into contact with other horses.¹¹

At the transfer facility Mr Anderson and Ms Maguire led the horses from the airstall into their road transport. Dr Hee Song did a quick identity check, inspected the horses for injuries and checked them for any outward signs of disease.¹² The hay nets brought from Canyon Country were emptied into the airstall, and the water containers were emptied on the grass inside the corral. The empty hay nets and water bucket were put in the grooms' compartment on the truck, together with the horse rugs and horse travel boots that had also been removed from the airstall. Once the horses were loaded, Dr Hee Song sealed the doors of the vehicle.¹³

After the vehicle had departed Mr Baudille cleaned the transfer facility. He had no specific recollection of the consignment, but his usual practice was to collect any waste material, place it in the yellow quarantine bins, and then spray the area with a high-pressure hose. Mr Baudille also said that on some occasions he sanitised the unloading area with a disinfectant.¹⁴ Mr Darren McInerney, Sydney Airport Manager for Aero-Care, gave evidence that the disinfectant solution used at the transfer facility in July and August 2007 was the brand Contain 5000[®].¹⁵

The empty airstall was taken to a compound owned by Sydney Airports Corporation, situated close to the transfer facility. On 4 August 2007 the bottom of the airstall was shrink-wrapped by Messrs Steven Angus, Joe Ippolito and Steven Elias of SITA Environmental Solutions. An AQIS officer from the Air Cargo Unit inspected the stalls once they had been shrink-

⁹ WIT.CBHT.003.0001 at para.9.

¹⁰ WIT.AQIS.005.0001 at para. 12, WIT.CBHT.004.0001 at para. 21.

¹¹ WIT.INQ.011.0001 at paras 10–12.

¹² WIT.AQIS.005.0001 at para. 13.

¹³ WIT.AQIS.005.0001 at para. 16, WIT.SHT.001.0001 at para. 11.

¹⁴ WIT.AERO.001.0001 at para. 17.

¹⁵ WIT.AERO.003.0001 at para. 8.

wrapped. The stall was then loaded into a semi-trailer driven by Mr Ippolito and transported to the SITA quarantine-approved premises at Camellia via the AQIS-approved route.¹⁶ At the SITA premises the stall was cleaned and disinfected by Mr Angus and Mr Elias. On 7 August Mr Andrew Kong of AQIS Centralised Appointments attended the SITA premises to inspect the cleaned stalls from two flights and found that the cleaning was not satisfactory. As a result, SITA was required to do additional cleaning. Mr Kong returned on 9 August and, having then found the cleaning adequate, cleared the stalls for return to Sydney Airport.¹⁷

Ms Maguire travelled to Eastern Creek in the vehicle driven by Mr Watene. Mr Anderson walked to the international terminal, then caught a bus to the long-term car park, where he collected his car before driving home to his property in Kulnura.

At Eastern Creek the unloading of the vehicles was supervised by Ms Rhonda Christesen. Ms Maguire had a copy of the stall plan at the Quarantine Station and knew the intended location of each horse. Mr Watene helped Ms Maguire unload the horses from the vehicle and place them in the allocated stalls. He was still wearing the overalls that he had been given at the airport, although he had probably been asked by Dr Hee Song to remove them at the transfer facility.¹⁸ All three horses were placed in row F—Teddy Bear in stall number 12, Sheer Kingston in stall number 13, and Fox & Firkin in stall number 14.

After the horses had been unloaded Mr Watene drove the vehicle to the cleaning bay and used a high-pressure hose to wash its interior cargo section, including the dividers, rubber floor, roof and bars. He then used a disinfectant on the interior of the horse compartments. He did not clean or disinfect the interior of the driver's cabin. Ms Christesen supervised Mr Watene as he did the cleaning. Once the vehicle was clean, Mr Watene removed his overalls and left them at the wash bay.

Mr Watene did not come in contact with or transport horses again until 6 August 2007. Inquiries made in relation to the sero-conversion results of the horses in this consignment and the horses transported by Mr Watene after the quarantine run established that none of the horses transported by him¹⁹ contracted equine influenza soon after 3 August 2007. There was not, therefore, any demonstrated link between Mr Watene's transport vehicle and the outbreak.

¹⁶ WIT.SITA.002.0001 at para. 7; SITA.0001.001.0286.

¹⁷ SITA.0001.001.0124_R; SITA.0001.001.0125_R; DAFF.0001.873.0005 at 0005–0008.

¹⁸ WIT.AQIS.005.0001 at paras 18, 24.

¹⁹ AQIS.1001.002.0002.

7.2 Consignment 2

Consignment 2 consisted of five thoroughbred stallions and seven general-traffic horses from the United Kingdom. Their importation was arranged by International Racehorse Transport Pty Ltd under import permit number IP07013195.²⁰ All 12 horses were imported on behalf of private owners or studs.

Under the conditions of the import permit each of the horses was required to be held in PEQ premises for 21 days immediately before being exported. The horses were quarantined at The National Stud, Newmarket, Suffolk, from 11 July 2007 to 2 August 2007. Table 7.3 shows the vaccination details for each of the horses.

Table 7.3 Consignment 2: vaccination details

Name of horse	Vaccine and date	Vaccine and date	Vaccine and date	Vaccine and date
Danbird	Prevac Pro	14.07.06	Equilis Prequenza TE	03.07.07
Indesatchel	Duvaxyn IE-T Plus	14.06.07	Prequenza	11.07.07
Trade Fair ^a	Duvaxyn IE-T Plus	06.06.07	Duvaxyn IE-T Plus	09.07.07
Denon ^a	Prevac Pro	14.07.06	Prequenza	11.07.07
Desert King	Equilis Equeza T	15.02.07	Prequenza	11.07.07
Wells High Class ^a	Duvaxyn IE-T Plus	03.06.07	Prequenza	11.07.07
Jorrit fan Stal Redia	Duvaxyn IE Plus T	2007 ^b	Prequenza	11.07.07
Ainthorpe Graceful Sonnet ^a	Duvaxyn IE-T Plus	05.06.07	Equilis Prequenza TE	09.07.07
Doringcourt	Resequin NN Plus DE	17.01.07	Resequin NN Plus DE	26.06.07
Morton Hall Go For Broke	Duvaxyn IE-T Plus	10.07.06	ProteqFlu	18.06.07
Woodsbee	Duvaxyn IE-T Plus	07.12.06	Proteq Flu	18.06.07
Faltstermeyer	IET Plus	01.02.07	Equip F	21.06.07

a. The health certificates of these horses certified them as vaccinated twice at an interval of four to six weeks (rather than once as a booster to a certified primary course of vaccination).

b. Date is illegible.

No evidence was put before the Inquiry in relation to the PEQ period or the transport of these horses to Heathrow Airport. Mr Bruce ‘Snow’ McDonald, a flying groom with 30 years’ experience who was contracted by International Racehorse Transport to accompany the horses to Australia, described the process at the airport.²¹ Because there was no airside transfer facility, horses were unloaded directly from the transport vehicles into airstalls, which were then loaded into the aircraft. The airstalls were sprayed with disinfectant by a

²⁰ IRT.0001.002.0278.

²¹ WIT.IRT.005.0001 at paras 6–7.

quarantine officer immediately before the loading, and the whole process was supervised by a government veterinarian.²²

Mr McDonald, who struck me as able and particularly conscientious, travelled with the horses from Heathrow Airport on Singapore Airlines flight SQ7296 with Mr David Surry and Mr Andrew Palmer, also professional flying grooms, and Dr Ivan Bridge, a veterinarian contracted by International Racehorse Transport. The aircraft arrived in Sydney at about noon on 4 August 2007. Dr Hee Song again was the AQIS veterinary officer who performed the quarantine clearance of the horses at the airport. It was not clear on the evidence who, if anyone, cleared the grooms for quarantine purposes. The passengers and crew were cleared for customs purposes by Mr Robert Otto, a customs officer.²³

Ground handling services for this flight were provided by Toll Dnata Air Services. The evidence was that none of the people involved in the unloading of the Singapore Airlines flight came into contact with horses in the 48 hours after providing freight services for the flight.²⁴

Mr Ian Sim was the Aero-Care officer controlling the transfer facility during the unloading of the aircraft on this occasion.²⁵ Mr Julian Cornter, International Racehorse Transport Flight Operations Manager, and Mr Tetsuhito Hirose, a flying groom contracted by International Racehorse Transport, came to assist in the disembarkation of the horses. Shortly after the aircraft arrived they both walked on to the tarmac and boarded the aircraft. They wore high-visibility vests and safety boots but no disposable protective clothing.²⁶

Mr Osama Adlouni, a security officer with SNP Security, attended the Singapore Airlines flight and recorded the movements of all people entering the aircraft.²⁷ Both Mr Cornter and Mr Hirose had their own aviation security identification cards and were allowed entry to the aircraft. The Singapore Airlines movement log shows they were on board the aircraft from 12.12 to 1.30 pm. Mr Cornter collected the import documentation for the horses from Mr McDonald and then returned to the transfer facility on foot.

²² T902.

²³ WIT.CUST.004.0001 at para. 6.

²⁴ WIT.TOLL.001.0001; WIT.TOLL.002.0001; WIT.TOLL.003.0001; WIT.TOLL.004.0001; WIT.TOLL.005.0001; WIT.TOLL.006.0001; WIT.TOLL.007.0001; WIT.TOLL.008.0001; WIT.TOLL.009.0001; WIT.TOLL.010.0001; WIT.TOLL.011.0001.

²⁵ WIT.AERO.006.0001 at para. 2; AQIS.1000.048.0007_R; AERO.0001.001.0058.

²⁶ WIT.IRT.004.0001 at para. 5.

²⁷ AQIS.1001.006.0001; WIT.SNP.001.0001 at para. 5.

Three vehicles were used to transport the horses to Eastern Creek. The drivers, Mr Blake Smith, Mr Justin Murphy and Mr Darren Bell, worked for the Livestock Transport Group.²⁸ On their arrival at the transfer facility, Dr Hee Song gave each of them overalls to wear. Dr Hee Song said he generally did not give the importers' representatives overalls to wear when inside the transfer facility.²⁹ It was his practice, although not a consistent one, to advise the importer's representative to shower and change clothes after leaving the airport and before coming into contact with other horses.³⁰ Dr Hee Song agreed that he did not always tell the representatives what they should do when they left the airport.³¹

The airstalls were brought into the transfer facility and unloaded. Mr Hirose was inside the airstall carrying Wells High Class and on arrival at the enclosed area walked the horse directly across to its transport. Messrs McDonald, Surry, Palmer and Murphy assisted with the unloading of the other horses. Mr Cornter helped the grooms lower the doors to the airstalls and then guided the horses as they were led out, placing his hand on their hindquarters to prevent them from colliding with the airstall and being injured.³² Dr Hee Song inspected each horse before it was loaded into the vehicle. Once all the horses were loaded, Dr Hee Song sealed the vehicles.

The evidence before the Inquiry did not establish which horse was carried in which vehicle. Although the drivers' sheets purport to record this information, the horses a driver actually carried varied according to the order in which they were unloaded and the importer's or owner's directions at that time. Mr Hirose travelled to Eastern Creek with Mr Bell. Mr Murphy and Mr Smith travelled without passengers.

None of the people who had travelled with the horses on the aircraft went to Eastern Creek. Mr Cornter drove Mr Surry and Mr Palmer to an hotel, took Mr McDonald to the domestic terminal so that he could catch a flight to Brisbane, and Dr Bridge to the international terminal because he was returning to New Zealand on a commercial flight that day.³³

Once the vehicles had left for Eastern Creek, Mr Sim collected the waste material from the ground, as required by the Sydney Airports Corporation –

²⁸ WIT.LTG.009.0001; WIT.LTG.008.0001.

²⁹ WIT.AQIS.005.0001 at para. 12.

³⁰ WIT.AQIS.005.0001 at para. 12; T598–T599.

³¹ T599.

³² WIT.IRT.001.0001 at para. 53.

³³ WIT.IRT.001.0001 at para. 55; T495 (Cornter).

Aero-Care procedures manual³⁴, and placed it in the yellow quarantine bins inside the facility.³⁵

The airstalls were delivered to a compound close to the transfer facility and, together with the airstall from the previous consignment, were shrink-wrapped by Messrs Steven Angus, Joe Ippolito and Steven Elias of SITA. The stalls were inspected by an AQIS officer before being taken to the SITA quarantine-approved premises at Camellia, where they were cleaned and disinfected by Mr Angus and Mr Elias. Further cleaning was required after the first inspection by AQIS on 7 August 2007. Mr Kong re-inspected and cleared the stalls for return to Sydney Airport on 9 August 2007.³⁶

At Eastern Creek Mr Hirose and Mr Murphy unloaded the horses from the vehicles under the direction of Ms Christesen. Ms Maguire also assisted with the unloading of the 'general horses', but she did not come into contact with the stallions. Mr Smith did not unload any horses. The five stallions were placed in stables in row C, in stalls 1 to 4 and 6. The other horses were placed in row F, in stalls 1 to 4 and 6 to 8, separated by three empty stalls from the horses that had arrived the previous day from the United States.³⁷

All three drivers washed out their trucks (but not the truck cabins) with disinfectant at the wash bay, and the vehicles were inspected by Ms Christesen before their departure from Eastern Creek.

Investigations suggest that none of the horses transported by Mr Murphy, Mr Smith or Mr Bell contracted the equine influenza virus soon after 4 August 2007. Further, there is no evidence of any connection between the vehicles in question and the horses that attended the Maitland event.³⁸

7.3 Consignment 3

Consignment 3 consisted of 16 stallions imported by International Racehorse Transport under two import permits. Ten of the stallions were from the United Kingdom and were imported under import permit number IP07013184³⁹; the remaining six stallions were from Ireland and were imported under import permit number IP07013186.⁴⁰ All 16 stallions were consigned to Darley Australia Pty Ltd. The 10 UK stallions were loaded on to an aircraft at Stansted

³⁴ AQIS.1000.047.0001.

³⁵ WIT.AERO.006.0001 at para. 6.

³⁶ SITA.0001.001.0109_R; SITA.0001.001.0110_R, DAFF.0001.873.0005 at 0008–0012.

³⁷ AQIS.2001.007.0011.

³⁸ LTG.0001.001.0072; LTG.0001.001.0083; LTG.0001.001.0042.

³⁹ IRT.0001.003.0238.

⁴⁰ IRT.0001.003.0258.

Airport in the United Kingdom. The aircraft then flew to Shannon Airport in Ireland, where the other six stallions were loaded.

Under the conditions of its import permit each of the horses was required to be held in PEQ premises for 21 days immediately before being exported. All undertook PEQ from 14 July to 5 August 2007. The six stallions from Ireland underwent PEQ at Kildangan Stud, Kildare.⁴¹ The 10 stallions from the United Kingdom were quarantined at the following premises:

- (a) Dalham Hall Stud, Duchess Drive, Newmarket, Suffolk—Dubawi, Librettist, Dubai Destination, Red Ransom, Tiger Hill, Tobougg and Country Reel⁴²
- (b) the Nunnery Stud, Thetford, Norfolk—Ekraar, Storming Home, Mujahid.⁴³

Table 7.4 shows the vaccination details for each of the horses in this consignment.

There was evidence in relation to the PEQ and the transport of these horses to Stansted Airport and to Shannon Airport, where they were loaded for carriage to Sydney on Dubai Air Wing flight DUB008.

Messrs Matthew Jackson, Chris Deschamps and Daniel Halford were assigned to care for the seven horses in PEQ at Dalham Hall Stud and to accompany them to Australia. The stallions were quarantined in a barn within an isolation yard enclosed by fencing. The quarantine yard was about 1.5 kilometres from the main farm. Foot baths were provided at the entrance of the PEQ site for visitors to use on entry and exit. The grooms were not permitted to have contact with horses outside PEQ, and each of them gave evidence that he complied with this requirement.⁴⁴ The stallions all appeared to be in good health throughout PEQ.

⁴¹ DLYA.0001.004.0044.

⁴² DLYA.0001.004.0051.

⁴³ DLYA.0001.004.0023; DLYA.0001.004.0024.

⁴⁴ WIT.DLYA.008.0001 at para. 6; WIT.DLYA.017.0001 at para. 10; WIT.DLYA.020.0001 at para. 6.

Table 7.4 Consignment 3: vaccination details

Name of horse	Vaccine and date		Vaccine and date	
Irish horses				
Exceed and Excel	Prevac Pro	01.06.06	Proteq Flu-Tet	30.05.07
Cape Cross	Duvaxyn IE-T	13.06.06	ProteqFlu-Tet	09.06.07
Noverre	Duvaxyn IE-T	13.06.06	Proteq Flu-Tet	09.06.07
Sharmardal	Duvaxyn IE-T	13.06.06	Proteq Flu-Tet	09.06.07
Refuse to Bend	Duvaxyn IE-T	13.06.06	Proteq Flu-Tet	09.06.07
Ifraaj	Duvaxyn IET	19.12.06	Proteq Flu-Tet	09.06.07
UK horses				
Dubawi	Prevac Pro	01.06.06	Prevac Pro	03.05.07
Librettist	ProteqFlu-Te	13.10.06	Prequenza	14.07.07
Dubai Destination ^a	Prevac Pro	03.05.07	Prequenza	04.06.07
Red Ransom	Prevac Pro	01.06.06	Prevac Pro	03.05.07
Tiger Hill	Prevac Pro	03.05.07	Prequenza	04.06.07
Ekraar	Prevacun NNT	14.02.07	Prequenza	13.07.07
Tobougg ^a	Prevac Pro	03.05.07	Prequenza	04.06.07
Storming Home	Prevac T Pro	08.01.07	Prequenza	13.07.07
Country Reel	Proteq Flu-Te	14.01.07	Prequenza	14.07.07
Mujahid	Prevac T Pro	08.01.07	Prequenza	13.07.07

a. The health certificates of these horses certified them as vaccinated twice at an interval of four to six weeks (rather than once as a booster to a certified primary course of vaccination). The health certificates for the Irish horses did not show whether the horses had been vaccinated twice at an interval of four to six weeks or once as a booster to a certified primary course of vaccination, but their vaccination histories show that the vaccinations were boosters.

On the final day of quarantine three trucks collected the horses. In addition to Messrs Jackson, Deschamps and Halford, present during the loading of the horses were Mr Michael Rowe and Mr Michael Keegan, both flying grooms contracted by Janah (a company associated with the owners of the Darley Stud), and Dr Desmond Leadon, a veterinarian also contracted by Janah. Dr Leadon inspected the horses thoroughly to ensure that they were fit to travel. He did not observe any signs of injury or illness and concluded that all the horses appeared healthy.⁴⁵ A government veterinarian was also present to supervise the loading. Messrs Jackson, Deschamps and Halford loaded the stallions into the waiting vehicles and, along with Mr Rowe and Mr Michael Keegan, travelled to Stansted Airport, a trip taking about 45 minutes. Dr Leadon travelled to the airport in a separate vehicle.⁴⁶

Mr Allan Knight and Mr Ward Balloch, professional flying grooms contracted by Janah, both came to the Nunnery Stud on the day of departure and accompanied the three stallions Ekraar, Storming Home and Mujahid to Stansted Airport and on to Sydney.⁴⁷ At the PEQ station Mr Knight helped

⁴⁵ WIT.DLYA.016.0001 at para. 6.

⁴⁶ WIT.DLYA.016.0001 at para. 8.

⁴⁷ WIT.JANA.005.0001; WIT.JANA.004.0001.

load the horses into the vehicles while Mr Balloch remained inside his. They travelled directly to the airport in one of the trucks, a trip taking about two hours.

On arrival at the airport all the vehicles entered an enclosed area known as the Border Inspection Point. The horses were inspected by a government veterinarian for identification and regulatory purposes before they were loaded into the airstalls. Dr Leadon also conducted a visual inspection of the stallions, looking for any signs of illness. All horses appeared to be in good health.⁴⁸ With the assistance of Mr Christopher Webster, another professional groom contracted by Janah⁴⁹, the grooms loaded the horses into the airstalls and on to the aircraft. Each stallion had its own airstall and, except for take-off and landing, travelled with its head free to drop to floor level to reduce the possibility of transit-related respiratory disease. The aircraft, a Boeing 747, was owned by Darley Stud interests and was specially adapted for transporting horses.

Messrs Mark Delaney, Jerry Keegan and Mark Deering (from 26 July 2007 only), stallion grooms employed by Darley, were assigned to care for the six Irish stallions during PEQ and to accompany them to Australia. As noted, the stallions underwent PEQ in a quarantine barn on the Kildangan Stud. The barn was about 500 metres from the other yards and barns on the stud⁵⁰; it was in an enclosed area and accessible only by a single gate. The horses were monitored by security cameras 24 hours a day. Only authorised people could enter the quarantine area, and any visitors such as veterinarians or farriers had to be accompanied by Mr Delaney, Mr Jerry Keegan or Mr Deering. Authorised people and visitors were required to sign a visitors book and to dip their shoes in a disinfectant foot bath on entry and exit. Each of the grooms, or 'stallion men' as they are also known, was forbidden to have contact with horses other than those that had been assigned to them in PEQ, and each of them gave evidence that he complied with this requirement.⁵¹ The evidence suggested all the horses appeared to be in good health during PEQ.

On 5 August 2007 the six stallions were prepared for transport to Shannon airport in four vehicles. The vehicles were disinfected before the horses were loaded. Representatives of the stud's management, drivers, a government veterinarian, and the three stallion men were present in the quarantine area to help load the stallions into the vehicles. A Darley groom, Mr Wayne Chapman, also went to Kildangan Stud to join the horses for shipment to Sydney.

⁴⁸ WIT.DLYA.016.0001 at para. 10.

⁴⁹ WIT.JANA.001.0001.

⁵⁰ WIT.DLYA.011.0001 at para. 8.

⁵¹ WIT.DLYA.012.0001 at para. 5; WIT.DLYA.014.0001 at para. 6; WIT.DLYA.011.0001 at para. 17.

Messrs Delaney, Jerry Keegan and Chapman travelled with the stallions to Shannon Airport, a trip of about two hours. The evidence before the Inquiry did not tell whether Mr Webster also travelled to the airport in one of the vehicles. On arrival, the vehicles parked in the Border Inspection Point at the airport, an enclosed area about 100 metres from aircraft. The horses were led from the vehicles into airstalls with the assistance of Mr Michael Keegan and Mr Webster, who had disembarked to assist with the loading. Dr Leadon also disembarked and went to the Border Inspection Point to conduct a visual inspection of the Irish stallions as they were loaded. He observed that there were no problems with any of them.⁵²

After departing from Shannon Airport, the aircraft stopped in Dubai and Singapore; the horses remained on board on both occasions. Dr Leadon conducted periodic visual inspections of each of the stallions during the flight.⁵³ Apart from needing to sedate Noverre, which was anxious before take-off from Singapore, Dr Leadon said the flight was without incident.⁵⁴ The grooms on board also gave evidence that the horses appeared to be in good health. The aircraft arrived at Sydney (Kingsford Smith) Airport at about 9.00 am.

Customs officers Ms Kalyani Mani and Mr Gavin Myers boarded and examined the documents of the 13 grooms and eight crew members who had arrived on the flight. Customs clearance took place on the upper deck of the aircraft, and Ms Mani and Mr Myers did not go into the cargo hold, where the horses were being prepared for unloading. AQIS Airports Program quarantine officers Mr Dennis Kladis, Mr Gary Howard, Ms Debbie Farrell and Ms Denise Thomas had been allocated to quarantine clearance of the flight. Ms Farrell and Ms Thomas were officers in training. The four officers boarded the aircraft after the customs officers.

The customs officers cleared the flight crew and grooms by checking their passports and incoming passenger cards. The cards were then handed to the quarantine officers, who checked them to see whether any passengers had declared any material of risk. While Mr Kladis went to the upper deck to clear the flight crew and check their quarantine declarations Mr Howard, Ms Thomas and Ms Farrell started clearing the grooms. Mr Kladis said he did not allow anyone from outside to board the aircraft while the AQIS quarantine officers were on board, although he accepted that people may have come aboard after the officers had left the aircraft.⁵⁵

⁵² WIT.DLYA.016.0001 at para. 16.

⁵³ WIT.DLYA.016.0001 at paras 13, 17, 19, 21.

⁵⁴ WIT.DLYA.016.0001 at paras 21, 27.

⁵⁵ T935, T939–T940.

The ground handling agent for this flight was Qantas Freight. Although there was no evidence whether the people involved in unloading this flight came into contact with horses in the 48 hours after providing freight services, the scientific evidence denies that these horses were the source of the equine influenza virus entering Australia.

Mr Benjamin Booth was the Aero-Care officer controlling the transfer facility.⁵⁶ Present at the airport were Mr John Sunderland, Darley stud manager; Ms Tanya Henry-May, Darley head of marketing; Mr Stuart McKay and Mr Aaron Goodworth, both Darley grooms; and Mr Paul Ryan, the Darley float driver who had driven the Darley truck to the airport. Mr Cornter and the Livestock Transfer Group manager, Mr Nicholas Eastlake, were also present.

Mr Sunderland, Ms Henry-May, Mr McKay and Mr Goodworth walked to the aircraft accompanied by Mr Cornter; they were using visitors passes they had obtained from the gatekeeper at Gate 27.⁵⁷ AQIS veterinary officers had no, but should have had, control over the issuing of visitors' passes.⁵⁸ Mr Cornter did not seek permission from any AQIS officer before escorting the Darley personnel to the aircraft.⁵⁹ Mr Sunderland and Ms Henry-May did not enter the body of the aircraft.⁶⁰ After a short time, Mr Cornter, Mr Sunderland and Ms Henry-May walked back to the transfer facility. Mr Goodworth and Mr McKay stayed on board the aircraft to assist with the unloading of the horses. Mr Eastlake did not go to the aircraft and did not assist with the unloading of the horses.

Mr Franc Saule, a cameraman employed by Sportscour Pty Ltd, was present in the transfer facility to film the arrival of the horses for ThoroughVisioN Pty Ltd. Mr Saule was at the airport for approximately three hours but did not touch any of the horses during that time. The video footage Mr Saule shot was made available to the Inquiry and became part of the evidence. An edited version was played during Mr Cornter's evidence.⁶¹

The video footage shows a large number of people who are not essential to the transport of horses entering the transfer area. It is common for some of them to enter the aircraft before it is unloaded and later to come into contact with horses, their airstalls, grooms and their luggage and equipment. The video footage of the arrival of this consignment shows, for example, at one point, images of a person's hands passing directly in front of a horse's mouth and

⁵⁶ WIT.AERO.005.0001; AQIS.1000.048.0002_R; AERO.0001.001.0055.

⁵⁷ T549 (Sunderland).

⁵⁸ T601 (Hee Song).

⁵⁹ T496.

⁶⁰ T549 (Sunderland).

⁶¹ EII.0005.001.0045; T498–T499.

nostrils before the airstall door is unhooked and lowered. That person was apparently a visitor to the airport, perhaps a person associated with the import agent. If the horse in question had been infected and was shedding the virus there would be a good chance that the virus could have been passed on to that person's skin or clothing, for possible carriage out of the airport and into the general horse population. Unlike the drivers of the transport vehicles, these non-essential participants are not given any dedicated clothing to wear and are only rarely subject to scrutiny by the AQIS airside officers. In addition, it is common for them to offer to drive grooms and veterinarians who have travelled with the horses out of the airport and to destinations other than Eastern Creek Quarantine Station. This, too, offers a possible route for the escape of the virus, although I do not think it likely that it was the route in August 2007.

Dr Phillip Widders was the AQIS veterinary officer who performed the quarantine clearance of the horses at the airport. A tug pulled the airstalls to the transfer facility two at a time. Mr Delaney accompanied Sharmadal; Mr Deering made two trips, accompanying Noverre and Mujahid; Mr J Keegan accompanied Cape Cross; Mr Deschamps accompanied Country Reel; Mr Chapman accompanied Exceed and Excel and Storming Home, making two trips; and Mr McKay accompanied Dubai Destination. Messrs Jackson, Rowe, Webster and Goodworth also accompanied stallions from the aircraft. Dr Widders inspected each of the horses as it was loaded into the waiting vehicles and discussed its health with Dr Leadon.⁶² Dr Widders was not aware that people other than Mr Cornter had visited the aircraft.⁶³

The Livestock Transport Group drivers present at the airport to transport the horses to Eastern Creek were Messrs Graeme Walker, Richard Chomley, Andrew Burnett, Frank Worboyes, Warwick Foster and Edwin Clarke. Dr Widders gave each driver a pair of overalls. The drivers did not assist in the unloading of the horse stalls but might have come into contact with the horses when closing and securing the doors to their vehicles.⁶⁴ Ms Sidney Roberts of the Livestock Transport Group was also briefly at the transfer facility, at the request of Mr Eastlake, to deliver shavings that were put on the floors of the vehicles.⁶⁵ Mr Eastlake subsequently departed with Ms Roberts in her vehicle.⁶⁶

After clearing the aircraft, the four quarantine officers drove to the transfer facility, where they set up a workstation behind a shed; here they carried out a '100 per cent manual inspection' of the grooms' luggage and cleaned the

⁶² WIT.AQIS.006.0001 at para. 25; WIT.DLYA.016.0001 at para. 24.

⁶³ T1024–T1025.

⁶⁴ WIT.LTG.005.0001 at para. 17; T2393–T2394 (Chomley).

⁶⁵ WIT.LTG.010.0001 at para. 21.

⁶⁶ T2343.

grooms' footwear and equipment.⁶⁷ Any material posing a quarantine risk that was found in the bags was treated by cleaning it and spraying it with Virkon™ disinfectant solution, then it was wrapped in a black plastic bag and put back in the luggage.⁶⁸ Many of the grooms who had travelled from the United Kingdom and Ireland gave evidence that they recalled having their luggage inspected and having been asked to remove their shoes for cleaning and disinfection.⁶⁹ Quarantine officer Mr Craig Blackburn attended the area before the vehicles had left to collect Ms Farrell and Ms Thomas, who had finished their shift. Once the horses were loaded, Dr Widders sealed the doors of the vehicles.⁷⁰ Messrs Deschamps, Deering, Chapman, Jerry Keegan, McKay, Goodworth, Halford, Jackson and Delaney all travelled to Eastern Creek in the trucks. Once they had left the airport Mr Booth collected the waste in the enclosed area and placed it in the quarantine bins. He then opened two sachets of disinfectant powder, sprinkled the contents over the unloading area and ramp and then sprayed it with a fire hose.⁷¹ In his evidence, Mr Booth voiced concern about water pooling on the ground because of the lack of adequate drainage at the facility.⁷²

The 24 empty airstalls were shrink-wrapped by Mr Ippolito and Mr Neil Christie and inspected by AQIS officer Mr Stephen Gabriel of the Air Cargo Unit, who directed them to increase the height of the wrapping.⁷³ Mr Ippolito and Mr Steve Jay transported the stalls⁷⁴, in six trips, to Camellia, where they were cleaned and disinfected by a number of SITA officers, including Mr Angus and Mr Christopher Livingstone. Because an AQIS officer from Centralised Appointments was unable to attend the quarantine-approved premises permission was granted for SITA to return the stalls to Sydney (Kingsford Smith) Airport to be inspected there.⁷⁵ Mr Gabriel inspected and cleared eight of the 24 airstalls after they had been returned to SKSA.⁷⁶

At Eastern Creek unloading was supervised by Mr Greg Hankins, who directed the grooms to the stall allocated to each horse. The grooms did the unloading. The six Irish stallions were placed in row A, stalls 8 to 13. The 10 UK horses were placed in row A, stalls 1 to 7, and row B, stalls 7 to 9.

⁶⁷ WIT.AQIS.002.0001 at paras 18–19; WIT.AQIS.023.0001 at para. 16.

⁶⁸ WIT.AQIS.024.0001 at para. 32; WIT.AQIS.020.0001 at para. 22.

⁶⁹ WIT.DLYA.001.0001 at para. 15; WIT.DLYA.008.0001 at para. 19; WIT.DLYA.011.0001 at para. 34; WIT.DLYA.012.0001 at para. 20.

⁷⁰ WIT.AQIS.006.0001 at para. 26; WIT.LTG.005.0001 at para. 18.

⁷¹ WIT.AERO.005.0001 at para. 22.

⁷² WIT.AERO.005.0001 at para. 22.

⁷³ WIT.SITA.001.0001 at para. 17; WIT.AQIS.021.0001 at para. 18.

⁷⁴ WIT.SITA.002.0001 at para. 12.

⁷⁵ WIT.SITA.003.0001 at para. 22.

⁷⁶ WIT.AQIS.021.0001 at para. 19; DAFF.0001.746.0001.

Mr Ryan did not transport any horses in the Darley truck; he simply took some horse equipment to Eastern Creek. The truck remained in the car park outside Eastern Creek and the equipment was not unloaded. Mr Ryan collected the truck on the morning of 8 August 2007 and drove it to Darley's Aberdeen farm, collecting two Darley racehorses, one from Warwick Farm and one from Randwick, on the way. The first signs of equine influenza at Darley's Aberdeen farm were detected on 7 September 2007.⁷⁷

Mr Sunderland and Ms Henry-May travelled to Eastern Creek to watch the unloading of the horses. Messrs Halford, Jerry Keegan, Deering, Deschamps, Jackson, Delaney, Goodworth and Chapman (for one night only) remained at Eastern Creek to look after the horses during PAQ. Dr Leadon and Messrs Knight, Balloch, Rowe, Webster and Michael Keegan did not travel to Eastern Creek.

On 7 August 2007 Ms Terri Hayter and Mr Patrick Hennessy were the AQIS officers responsible for supervising the cleaning and disinfection of the transport vehicles.⁷⁸

The drivers' evidence was that the interior of the horse compartment of each transport vehicle was washed and sprayed with pre-mixed Virkon™ disinfectant solution⁷⁹ at the wash bay at Eastern Creek immediately after the horses were unloaded. Drivers often helped one another clean the trucks. Although grooms regularly travelled in the driver's cabin from the airport to Eastern Creek, the cabins were not disinfected. Evidence from the drivers supports that an AQIS officer either supervised the cleaning or inspected the vehicles before their departure from Eastern Creek. I accept that evidence.

Investigations conducted by officers attached to the Inquiry also support the conclusion that none of the horses transported by these drivers after 7 August 2007 was infected by the virus immediately following transportation.⁸⁰ No connection, therefore, was made between these vehicles and their drivers and the horses that were brought to Maitland for the equestrian competition that began on 17 August.

⁷⁷ WIT.DLYA.001.0001 at para. 30.

⁷⁸ WIT.AQIS.012.0001 at para. 96.

⁷⁹ WIT.AQIS.031.0001.

⁸⁰ LTG.0001.001.0158; LTG.0001.001.0121; LTG.0001.001.0180; LTG.0001.001.0182; LTG.0001.001.0141; LTG.0001.001.0131.

7.4 Consignment 4

Consignment 4 consisted of five stallions from the United States whose importation had been arranged by International Racehorse Transport under import permit number IP07013194.⁸¹ The horses were consigned to Darley Stud.

Pursuant to the conditions of the import permit, each of the horses undertook PEQ at Jonabell Farm, Lexington, Kentucky, from 16 July 2007 to 6 August 2007.⁸²

Table 7.5 shows the vaccination details for each of the horses.

Table 7.5 Consignment 4: vaccination details

Name of horse	Vaccine and date		Vaccine and date	
Elusive Quality	Fluvac Innovator	14.06.2007	Fluvac Innovator 4	13.07.2007
Henny Hughes	Fluvac Innovator	14.06.2007	Fluvac Innovator 4	13.07.2007
E Dubai	Fluvac Innovator	14.06.2007	Fluvac Innovator 4	13.07.2007
Bernadini	Fluvac Innovator	14.06.2007	Fluvac Innovator 4	13.07.2007
Consolidator	Fluvac Innovator	14.06.2007	Fluvac Innovator 4	13.07.2007

Note: The health certificates do not say whether the horses were vaccinated twice at an interval of four to six weeks or once as a booster. The vaccination dates do, however, suggest the former.

There was evidence relating to the PEQ and carriage of these stallions to Cincinnati Airport. Mr Derek Fowler, a stallion man employed by Darley, cared for the horses during PEQ. The stallions were kept in a barn on James Lane Farm, about 6 to 8 kilometres from the main Jonabell Farm. Mr Fowler was not permitted to come into contact with any horses other than those under quarantine during PEQ. His evidence was that he did not have any such contact. Mr James Zajic, Darley's US stallion manager, visited James Lane Farm about three times a day to check on the stallions. Each time he visited he wore booties and white coveralls and dipped his shoes in the disinfectant foot baths at the entrance to the facility and the barn.⁸³ Mr Fowler did not work on Mondays and was relieved by another groom, Mr Rafael Hernandez. Like Mr Fowler, Mr Hernandez was not permitted to come in contact with any horses other than those in quarantine during the PEQ period. Messrs Fowler, Zajic and Hernandez were the only people who had access to James Lane Farm, and any visitors had to be accompanied by one of them. The stallions were treated by a veterinarian, Dr Mark Eslick, and a farrier on a number of occasions during the PEQ period. The veterinarian and farrier sometimes wore disposable overalls. They too were required to dip their shoes in disinfectant

⁸¹ IRT.0001.003.0334.

⁸² DLYA.0001.004.0002.

⁸³ WIT.DLYA.013.0001 at para. 9.

foot baths located at both entrances to the stallion barn. Mr Fowler and Mr Zajic gave evidence that the stallions appeared to be in good health throughout PEQ.

On the day of the stallions' departure two trucks came to James Lane Farm. An official of the US Department of Agriculture inspected the vehicles to make sure that they were clean. In addition to Mr Fowler and Mr Zajic, Mr Norman Myers and Mr David Pope, professional grooms employed by Janah, and a veterinarian contracted by Janah, Dr Mariann Klay, were present at the farm to assist with the loading of the stallions. Dr Klay observed each of the horses before loading into the trucks; they appeared to her to be in excellent condition and good health.⁸⁴ Dr Rowe, a government veterinarian, was also present to supervise the loading and transport of the stallions to the airport. Stud manager Mr Michael Banahan was present to watch the horses being loaded.

The vehicles travelled directly to Cincinnati Airport. Mr Pope and Mr Myers travelled to the airport in one of them. The US Department of Agriculture official followed them in another car.⁸⁵ Dr Klay also followed, in a car with Mr Simon Glennie, the US representative of International Racehorse Transport. The trip to Cincinnati Airport took between one and one-and-a-half hours.

On arrival at the airport the trucks were driven to the dedicated livestock loading area, which Mr Myers described as a shed.⁸⁶ The horses were loaded into the airstalls. Each stallion had its own airstall. The loading area had a 'roll on, roll off' system. As each horse was loaded, the airstall would be rolled off on to a palette and then towed in convoy to the aircraft, which was about 100 to 200 metres away. The airstalls were loaded by hydraulic lift into the aircraft. There was one groom in each airstall while this was happening. Messrs Zajic, Fowler, Myers and Pope and Dr Klay travelled with the horses to Australia. The flight stopped in Honolulu for two hours; the grooms stayed on board with the horses. Throughout the flight Dr Klay carried out periodic visual inspections of the horses, observing that they were in good health⁸⁷, although Henny Hughes lost its balance and fell on the descent into Honolulu. It had to be treated for some minor abrasions.⁸⁸

The FedEx flight, FX9512, arrived at Sydney (Kingsford Smith) Airport at 3.50 pm. Ms Vasantha Pedagandham was the quarantine officer from the Airports Program who was rostered to attend the aircraft to clear the passengers

⁸⁴ WIT.JANA.007.0001 at para. 8.

⁸⁵ WIT.JANA.002.0001 at para. 8.

⁸⁶ WIT.DLYA.015.0001 at para. 12.

⁸⁷ WIT.JANA.007.0001 at para. 15.

⁸⁸ WIT.JANA.007.0001 at para. 16.

on arrival.⁸⁹ She had no specific recollection of this flight⁹⁰, although Mr Pope gave evidence that his luggage might have been inspected on the aircraft.⁹¹ The passengers and crew were cleared by customs officer Ms Katie Hulme. Ms Hulme did not enter the cargo hold but recalled seeing Ms Pedagandham checking the disinsection spray cans.⁹²

The ground handling agent for the flight was Menzies Aviation. Evidence before the Inquiry was that none of the people involved in unloading the flight had contact with horses in the 48 hours after unloading and no link could be established between them and the outbreak.⁹³

Mr Daniel Fradd and Mr Theo Theodoridis were the Aero-Care officers controlling the livestock transfer facility.⁹⁴ In his evidence Mr Fradd explained that, generally, only those people with an aviation security identification card or an SRA (security restricted area) visitors pass were permitted entry to the facility. In relation to the unloading of a consignment of horses, Mr Fradd would allow AQIS personnel, representatives of the importer, truck drivers and ground handling crew to enter. People without an aviation security identification card were not permitted to go airside from the transfer facility unless they were accompanied by an ASIC holder.⁹⁵

Messrs Sunderland, Ryan and McKay travelled together from Eastern Creek to the airport to meet the horses. They did not go to the aircraft but instead waited inside the fenced area for the horses to arrive. Mr Peter Twomey, an International Racehorse Transport employee from Victoria, was also at the airport to meet the aircraft following a request by Mr Cornter to help with the unloading. Mr Cornter walked out to meet the aircraft when it had arrived and shortly after called Mr Twomey to the aircraft to assist. Mr Cornter collected the horses papers and 15 to 20 minutes later left the FedEx flight to board a Martinair aircraft that had just arrived from Ireland. Mr Cornter returned to the transfer facility to help unload the airstalls from the FedEx flight. Mr Twomey remained on board to assist with the unloading of the horses.

Messrs Fowler, Myers, Zajic and Pope and Dr Klay each accompanied an airstall to the transfer facility. Mr Twomey did not accompany a horse but went back to that area on one of the tugs. Once inside the transfer facility, he helped move the airstalls from the tugs and on to the unloading area. As the horses

⁸⁹ DAFF.0001.159.0073.

⁹⁰ WIT.AQIS.004.0001 at para. 10.

⁹¹ WIT.JANA.002.0001 at para. 22.

⁹² WIT.CUST.003.0001 at paras 11–12.

⁹³ WIT.MENZ.004.0001 at para. 11.

⁹⁴ WIT.AERO.002.0001 at para. 9; AQIS.1000.048.0008; T728.

⁹⁵ T726.

were unloaded Dr Klay undertook a final inspection of each horse—other than Elusive Quality, which had already been loaded into a vehicle—and was satisfied that they looked healthy.⁹⁶ The grooms on the flight also gave evidence that the horses all appeared to be in good health. Dr Widders was the AQIS veterinary officer who performed quarantine clearance of the horses. He checked the identity of the stallions and, briefly, their physical condition as they were unloaded and taken to one of the waiting vehicles. He also discussed the horses' health with Dr Klay, although in his evidence Dr Widders appeared to be uncertain as to the precise identity of the veterinarian.⁹⁷ Mr Twomey then helped to push the hay and feed towards the back of the empty airstall and to move the airstalls back on to the tug.

Two truck drivers, Mr Graeme Walker and Mr Frank Worboyes of the Livestock Transport Group, were present. They did not assist with the unloading of the horses. Mr Worboyes was given a pair of overalls⁹⁸; Mr Walker said he was not given overalls because AQIS had apparently run out of them earlier in the afternoon.⁹⁹ Dr Widders said he had distributed overalls to the truck drivers¹⁰⁰; he did not say there had been shortage of overalls on any of the occasions he attended on 7 August.

Once the horses had been unloaded, the stalls were taken to the compound at Sydney (Kingsford Smith) Airport. The bottom of the stalls was shrink-wrapped by Mr Paul Connelly, Mr Ippolito and Mr Angus. An AQIS officer inspected the stalls once this had been done. The stalls were then loaded into the semi-trailer and Mr Henry Muir transported them to the quarantine-approved premises at Camellia.¹⁰¹ Once there, the stalls were cleaned and disinfected by Mr Livingstone. On 15 August 2007 Mr Javier Miro, an AQIS officer from Centralised Appointments, attended the Camellia premises and cleared the airstalls for return to the airport.¹⁰²

After the stallions had been loaded into the trucks Dr Widders sealed the doors of them.¹⁰³ Mr Fowler travelled to Eastern Creek in the truck with Mr Worboyes. Mr Walker drove unaccompanied.¹⁰⁴ Mr Sunderland drove Mr Zajic in his car to Eastern Creek. The others who arrived on the aircraft did not go to Eastern Creek.

⁹⁶ WIT.JANA.007.0001 at para. 22.

⁹⁷ WIT.AQIS.006.0001 at para. 25; WIT.JANA.007.0001 at para. 23.

⁹⁸ WIT.LTG.006.0001 at para. 20.

⁹⁹ WIT.LTG.010.0001 at para. 26.

¹⁰⁰ WIT.AQIS.006.0001 at para. 24.

¹⁰¹ WIT.SITA.007.0001 at para. 11.

¹⁰² SITA.0001.001.0138_R; DAFF.0001.873.0005 at 0014–0016.

¹⁰³ WIT.AQIS.006.0001 at para. 26.

¹⁰⁴ WIT.LTG.010.0001 at para. 26.

Mr Greg Hankins supervised the unloading of the trucks at Eastern Creek, assisted by Ms Pauline Cushing. As each horse was unloaded Mr Hankins told the groom which was that horse's stall.

Again, the evidence from Mr Walker and Mr Worboyes was that they washed the interior of the horse compartment of each truck with pre-mixed Virkon™ disinfectant at the wash bay at Eastern Creek. They departed when permitted to do so by the supervising AQIS officer, understood to be either Ms Hayter or Mr Hennessey, both of whom were supervising the cleaning of the transport vehicles on that day.¹⁰⁵

Investigations, which have been extensive, lead to the conclusion that none of the horses transported by Mr Walker and Mr Worboyes after 7 August 2007 was infected by equine influenza immediately following transportation in either of these vehicles¹⁰⁶, and no link can be established between these vehicles and the Maitland event.

The import documents handed to Dr Widders were taken to the AQIS office at Rosebery, where an AQIS veterinarian completed a veterinary audit report.¹⁰⁷ There was an anomaly with respect to the documents relating to Elusive Quality—in particular, the signed health certificate¹⁰⁸, which was dated 2 August 2007. Yet the veterinary officer Dr Eslick had certified:

- (a) that the horse had been treated with a board-spectrum parasiticide on 3 August 2007
- (b) that the horse was examined by an official veterinarian within 24 hours before leaving PEQ
- (c) that the vehicle for the transport of the horse to the port of export was cleaned and disinfected prior to loading
- (d) that during transport to the port of export the horse had no contact with other equines
- (e) that the compartment of the aircraft occupied by the horse had been cleaned and disinfected before the horse was loaded.

Although Dr Widders said in his evidence that additional certificates are often provided in the case of US imports¹⁰⁹, those documents neither permit premature certification of any of these conditions nor demonstrate to the

¹⁰⁵ WIT.AQIS.012.0001 at para. 96.

¹⁰⁶ LTG.0001.001.0158; LTG.0001.001.0182.

¹⁰⁷ AQIS.1000.028.0006.

¹⁰⁸ WIT.AQIS.018.0001 at para. 10; T622 (Hee Song).

¹⁰⁹ T1030–T1031.

veterinarian auditing the documents after arrival that each of the conditions had been satisfied. In its submissions, Darley outlined the evidence before the Inquiry that showed that the matters prematurely certified in the health certificate had been complied with.¹¹⁰ Regardless whether the conditions had, in fact, been satisfied, the evidence was not available at the time that the AQIS veterinarian was reviewing the documents. This should have been discovered and confirmation sought from the importer or certifying veterinarian. The entire purpose of checking the documents was to ensure compliance, yet it appears that irregularities in the health certificates had been a continuing problem.¹¹¹

7.5 Consignment 5

Consignment 5 consisted of 12 stallions from Ireland. Their importation had been arranged by International Racehorse Transport under import permit number IP07014144.¹¹² Ten of the horses were consigned to Coolmore Stud and the other two, Golden Snake and Rakti, were consigned to private owners.

Under the import conditions the horses were required to be held in PEQ for 21 days immediately before export. Eleven of the stallions underwent PEQ from 12 July 2007 to 5 August 2007; Rakti entered PEQ on 26 June 2007. The stallions underwent PEQ at four different premises:

- (a) Danehill Dancer, Antonius Pius, Oratorio, Encosta De Lago, Aussie Rules, Holy Roman Emperor and Ad Valorem at Fairy King Farm, Tipperary
- (b) Statue of Liberty, Ivan Denisovich and Choisir at Prospect Farm, Tipperary
- (c) Golden Snake at Greentree Stud, Tipperary
- (d) Rakti at the Irish National Stud, Kildare.

Table 7.6 shows the vaccination details for each of the horses.

¹¹⁰ SUBS.DLYA.001.0001 at para. 66.

¹¹¹ T1175–T1176 (Widders); T2761–T2765 (Brown); WIT.AQIS.006.0072.

¹¹² IRT.0001.003.0051.

Table 7.6 Consignment 5: vaccination details

Name of horse	Vaccine and date	Vaccine and date	Vaccine and date
Danehill Dancer	Prevac T Pro 29.06.06	Equip FT 20.06.07	
Choisir	Duvaxyn IE-T Plus 05.07.06	Duvaxyn IE-T Plus 25.05.07	
Antonius Pius	Prevac T Pro 05.07.06	Equip FT 20.06.07	
Oratorio	Prevac T Pro 30.06.06	Equip FT 20.06.07	
Encosta De Lago	Equip FT 01.05.07	Equip FT 20.06.07	
Aussie Rules	Prevac T 11.11.06	Equip FT 20.06.07	
Holy Roman Emperor	Prevac T Pro 22.12.06	Equip FT 20.06.07	
Ivan Denisovich	Prevac T 15.12.06	Duvaxyn IE-T Plus 25.05.07	
Statue of Liberty	Prevac T Pro 25.06.06	Duvaxyn IE-T Plus 25.05.07	
Ad Valorem	Prevac T 10.11.06	Equip FT 20.06.07	
Golden Snake	Equip FT 07.01.07	Equip FT 29.06.07	
Rakti	Duvaxyn IE-T 16.05.06	Duvaxyn IE-T Plus 14.05.07	

Note: The health certificates do not say whether the horses were vaccinated twice at an interval of four to six weeks or once as a booster. With the exception of Encosta De Lago, the vaccination dates do, however, suggest the former.

Fairy King and Prospect farms are Coolmore satellite farms situated about 7 or 8 kilometres from the main Coolmore stud, at Fethard in County Tipperary.¹¹³ During quarantine, access to those farms was restricted. Perimeter fencing surrounded the farms, and the gates at the access points were locked. The names of any visitors were recorded in a diary.

Mr Gabriel Walsh, Mr James Carey, Mr Benjamin Faulkner and Mr Gerard St John attended the seven horses at Fairy King Farm during PEQ.¹¹⁴ There were also six or seven part-time grooms who worked at the facility during the day. A 24-hour presence was required on the farm, and there were two access points, one of which was always locked. The other was unlocked only while people left and entered. There were three foot baths—one at the entrance to the main barn and one at each of the two gates providing access to the quarantine area.¹¹⁵ Grooms were instructed not to come into contact with any other horses during the PEQ period but were not required to shower in or out of the area.¹¹⁶ During PEQ a Coolmore veterinarian visited the horses several times. A government veterinarian also attended the farm to inspect the horses and the station. Mr St John kept a diary in relation to the stallions, beginning from PEQ.¹¹⁷ He had already spoken to each of the grooms (except Mr Carey) about quarantine

¹¹³ COOL.0001.002.0001_R.

¹¹⁴ COOL.0001.002.0002.

¹¹⁵ T831–T832 (Carey).

¹¹⁶ T834 (Carey).

¹¹⁷ AQIS.1000.044.0004.

requirements¹¹⁸ and what to expect at Eastern Creek, paying particular attention, he said, to the inexperienced grooms.¹¹⁹

Mr Thomas Heaney looked after the three horses in quarantine at Prospect Farm, assisted by two other grooms.¹²⁰ A Coolmore veterinarian, a government veterinarian and inspectors from the Department of Agriculture inspected the farm at various times.¹²¹ There were two access roads to it: one was permanently padlocked; the other was padlocked but opened in the morning to allow the grooms to enter because they stayed off-site overnight. A night watchman stayed on Prospect Farm in the evenings. Foot baths were set up at the access gates for visitors.

Early in the morning on 5 August 2007 Dr Denis Crowley, a veterinarian employed by O'Byrne & Halley, attended Fairy King Farm and Prospect Farm in turn and administered antibiotics to the Coolmore horses and treated them with insecticide.¹²²

At both farms the Coolmore grooms loaded the horses into vehicles, under the supervision of a Department of Agriculture veterinarian, Dr Martin Hanrahan, who checked the identification of each horse. At Fairy King Farm, Mr Faulkner, Mr Walsh and Mr Carey loaded the stallions into two vehicles; Mr Gerard Ryan also arrived on the morning of departure to accompany the horses on their flight to Australia.¹²³ Mr Ryan and Mr Walsh travelled to the airport together in one vehicle and Mr Faulkner and Mr Carey travelled in the other. At Prospect Farm, Mr Heaney, with the assistance of two other Coolmore employees, loaded the three horses into one vehicle for carriage to the airport.¹²⁴

Dr Crowley travelled in a car to Shannon Airport. The trip took between one-and-a-half and two hours. On arrival at the airport, Dr Crowley was advised that the Martinair flight had been delayed, and a decision was made to return the horses to the quarantine stations. The government veterinarian returned to the quarantine stations to unseal the trucks and the horses were unloaded under the supervision of Dr Crowley.¹²⁵

Once the horses had been unloaded at Fairy King Farm, the vehicles were taken to Coolmore Stud, where the drivers cleaned them in Anglims yard. Mr Heaney

¹¹⁸ T3836.

¹¹⁹ WIT.COOL.009.0001 at para. 21.

¹²⁰ T3828–T3829.

¹²¹ T3826–T3827.

¹²² WIT.COOL.012.0001 at para. 5.

¹²³ WIT.COOL.013.0001 at para. 6.

¹²⁴ WIT.COOL.010.0001 at para. 7.

¹²⁵ WIT.COOL.012.0001 at paras 6–7.

also gave evidence that on return to Prospect Farm the vehicles were washed and cleaned.¹²⁶

Golden Snake and Rakti also arrived at Shannon Airport accompanied by grooms employed by International Racehorse Transport; they were returned to their respective quarantine stations when news of the delay became known.¹²⁷

Later that evening Dr Crowley again supervised the loading of the horses at Fairy King and Prospect Farms for transport to the airport. At the airport, the horses were loaded into airstalls and on to the aircraft. The grooms were assisted by other Coolmore employees, including the farm manager, the transport manager and truck drivers. Two horses were placed in each airstall. The loading was supervised by Dr Seamus Ryan, a veterinarian with the Department of Agriculture.¹²⁸

Six Coolmore grooms travelled to Australia with the horses—Messrs Carey, St John, Faulkner, Heaney, Walsh and Gerrard Ryan. Dr Crowley also accompanied them. In addition, there were three International Racehorse Transport professional flying grooms (Mr John McGregor, Mr Ian Mackenzie-Smith and Mr Christopher Denness) and two other grooms (Mr Antonio Phillips and Mr Luis Ignacio Martin).¹²⁹

Martinair flight MP9177 left Shannon Airport at approximately 6.15 am on 6 August. The aircraft stopped at Dubai and Singapore. None of the passengers or horses left the aircraft at either place. The flight arrived at Sydney (Kingsford Smith) Airport at 4.04 pm on 6 August, only 14 minutes after the arrival of FedEx flight FX9512 from the United States.

Ms Pedagandham was the quarantine officer from the Airports Program who was rostered to clear the aircraft on arrival.¹³⁰ Ms Hulme, customs officer, boarded the aircraft with Ms Pedagandham and cleared the crew and passengers.¹³¹ She again recalled seeing Ms Pedagandham in the cargo hold checking the disinsection spray cans.¹³²

Ground handling services were provided by Menzies Aviation. There was no evidence before the Inquiry to suggest that any of the people involved in the

¹²⁶ WIT.COOL.010.0001 at para. 7.

¹²⁷ WIT.COOL.012.0001 at para. 6.

¹²⁸ WIT.COOL.012.0001 at para. 8.

¹²⁹ AQIS.1000.022.0010; WIT.IRT.001.0001 at paras 80, 86.

¹³⁰ DAFF.0001.159.0073.

¹³¹ WIT.CUST.003.0001 at para. 5.

¹³² WIT.CUST.003.0001 at para. 7.

unloading of this flight came into contact with horses in the subsequent 48 hours.¹³³

Mr Theo Theodoridis was the Aero-Care officer supervising the transfer facility during the unloading of the aircraft.¹³⁴ Present inside that area, awaiting the arrival of the Martinair flight were Mr Adrian O'Brien, Coolmore assistant stud manager, and Mr Thomas Magnier, business and racing manager for Coolmore Stud. Mr Cornter was also present and boarded the aircraft to collect the import documentation before returning to the transfer facility to wait for the horses.

Dr Widders was the AQIS veterinarian present at the airport to clear these horses. The Coolmore ones were the first to be unloaded. Mr Gerard Ryan accompanied Encosta De Lago and loaded him into one of the vehicles. Mr Walsh led Holy Roman Emperor from the airstall on to the truck. Mr Heaney accompanied Ad Valorem and Statue of Liberty to the transfer facility. The other of the horses were taken from the aircraft by the remaining grooms. Mr O'Brien assisted in unloading Antonius Pius from the airstall and led him to a truck.

Mr Cornter's evidence was that some of the Darley grooms from the FedEx flight helped to open the airstalls and unload the Coolmore horses.¹³⁵ Although in evidence none of those grooms said they had done so, Darley's counsel did not challenge Mr Cornter's evidence but put to him, with which he agreed, that the grooms he observed were at all times dealing only with horses that were going to Eastern Creek to start their quarantine.¹³⁶ I do not accept Darley's submission that it is consistent with the evidence that the grooms from the FedEx flight did not assist with the unloading of the horses from the Martinair flight.¹³⁷ In any event, this finding is of little importance, given that the scientific evidence leads to the conclusion that it was the horses from Japan that introduced the virus to Eastern Creek.

Three truck drivers met this consignment—Mr Peter Clark and Mr John Ryan, both of the Livestock Transport Group, and Mr Craig Atkinson, an employee of Coolmore Stud. All three were given overalls by Dr Widders.¹³⁸ None of them assisted in the unloading of the horses.

Mr Atkinson took seven horses in his truck—Danehill Dancer, Aussie Rules, Choisir, Encosta De Lago, Oratorio, Holy Roman Emperor and Ad Valorem.

¹³³ WIT.MENZ.003.0001 at para. 9.

¹³⁴ WIT.AERO.004.0001; SAC.0001.001.0101_R; AERO.0001.001.0050.

¹³⁵ T502.

¹³⁶ T541–T542.

¹³⁷ SUBS.DLYA.001.0001 at para. 69.

¹³⁸ WIT.AQIS.006.0001 at para. 24.

Messrs St John, Carey and Walsh and Dr Crowley travelled to Eastern Creek with Mr Atkinson. Mr Heaney and Mr Faulkner travelled in the truck driven by Mr Clark, with Antonius Pius, Statue of Liberty and Ivan Denisovich. Mr John Ryan transported Golden Snake and Rakti to Eastern Creek.

Mr Gerard Ryan did not go to Eastern Creek but left with Mr O'Brien and Mr Magnier. Mr Magnier was dropped off at the William Inglis Auction Centre in the suburb of Kensington, and Mr O'Brien and Mr Ryan continued on to the Coolmore Stud. Mr Cornter dropped Mr Twomey at the domestic terminal so that he could catch a flight to Melbourne that evening. There was no evidence from Messrs Mackenzie-Smith, Denness, Phillips or Martin because they were overseas and could not be contacted. These grooms did not, however, travel to Eastern Creek, and it would seem that Mr Cornter dropped no fewer than three of them at their hotel.¹³⁹

That entrants to the transfer facility were consistently given clear instructions about biosecurity measures (primarily that, if not wearing overalls, they should shower and change their clothes before coming into contact with other horses) is unlikely. Dr Widders' evidence was that on this occasion he advised Mr Magnier and Mr O'Brien, both senior employees of Coolmore and, in Mr O'Brien's case at least, a regular visitor to Sydney (Kingsford Smith) Airport for the arrival of horses, that it was inappropriate for them to handle the horses. Dr Widders also said that he told Mr Magnier to shower and wash his clothes before contacting horses outside quarantine.¹⁴⁰ Mr Magnier and Mr O'Brien deny being given any such instructions by Dr Widders or Dr Hee Song.¹⁴¹ Mr Cornter, a senior employee of International Racehorse Transport, admitted that such a warning had been given to him¹⁴², but he had not been asked to pass on instructions to the grooms.¹⁴³ Dr Hee Song gave evidence that he did not give such a warning to all entrants.¹⁴⁴ It appears to have been that an instruction may have been given some time ago to impress the necessity upon one particular entrant and that it included the requirement to complete a written declaration to that effect.¹⁴⁵

Once the trucks had departed, Mr Theodoridis cleaned the unloading area and placed the waste in the quarantine bins inside the transfer facility. He also made

¹³⁹ WIT.IRT.001.0001 at para. 86.

¹⁴⁰ WIT.AQIS.006.0001 at para. 24.

¹⁴¹ T577, T584.

¹⁴² T529.

¹⁴³ T531 (Hee Song).

¹⁴⁴ T599.

¹⁴⁵ AQIS.2005.085.0003.

up a disinfectant solution that he sprayed over the broom, shovel, ramp, grass and bitumen before rinsing off with a fire hose.¹⁴⁶

After the horses had been unloaded the stalls were taken to the compound at Sydney (Kingsford Smith) Airport. The bottom of the stalls was shrink-wrapped by Mr Paul Connelly, Mr Ippolito and Mr Angus. An AQIS officer then inspected the stalls. The stalls were loaded into a semi-trailer and Mr Muir transported them to the quarantine-approved premises at Camellia¹⁴⁷, where the stalls were cleaned and disinfected by Mr Livingstone. On 15 August 2007 Mr Javier Miro, an AQIS officer from Centralised Appointments, attended the SITA premises and cleared the airstalls for return to Sydney (Kingsford Smith) Airport.¹⁴⁸

At Eastern Creek Mr Hankins supervised the unloading of the horses, assisted by Mr Hirose, who directed the grooms to the stalls in which the horses were to be placed. All 12 Coolmore horses were placed in stalls in row E, stalls 5 to 14. Golden Snake was placed in row C, in stall 7, and Rakti in row C, in stall 9, under the care of Mr Hirose and Ms Cushing.

After the grooms had unloaded the horses Messrs Clark, John Ryan and Atkinson cleaned and disinfected the trucks in the wash bay, using a solution pre-prepared by AQIS. The drivers said they were supervised by a female AQIS officer at the wash bay. This is supported by evidence from Mr Hankins, who said Ms Hayter was supervising the cleaning on that day.¹⁴⁹ Each driver left his overalls at the wash bay. After delivering the horses to Eastern Creek, Mr Ryan and Mr Clark collected from Wilberforce a number of horses that were part of an outbound consignment to the Philippines and drove them to Sydney Airport. The vehicle driven by Mr Atkinson was used to transport horses from the airport to Eastern Creek the following day and was not used again until 24 August 2007.¹⁵⁰

Investigations confirm that none of the horses transported by these drivers after 7 August 2007 was shortly thereafter infected by the virus. The evidence does not establish any link between these vehicles or their drivers¹⁵¹ and the Maitland event.

¹⁴⁶ WIT.AERO.004.0001 at para. 14.

¹⁴⁷ WIT.SITA.007.0001 at para. 11.

¹⁴⁸ SITA.0001.001.0099_R; DAFF.0001.873.0005 at 0012–0014.

¹⁴⁹ WIT.AQIS.012.0001 at para. 96.

¹⁵⁰ WIT.COOL.005.0001 at para. 29.

¹⁵¹ LTG.0001.001.0131; AQIS.1001.027.0006; LTG.0001.001.0191.

7.6 Consignment 6

Consignment 6 consisted of seven stallions and six mares from Japan. The importation of five of the stallions was arranged by International Racehorse Transport under three import permits, numbers IP07013544¹⁵² (Stravinsky and Rock of Gibraltar), IP07013542¹⁵³ (Snitzel and Black Hawk) and IP07013535¹⁵⁴ (Grandera). The four stallions carried to Sydney were consigned to Coolmore Stud (Rock of Gibraltar and Stravinsky), Arrowfield Stud (Snitzel) and Darley Stud (Grandera). All other horses were consigned to private owners.

Importation of the six mares and the remaining two stallions was arranged by Crispin Bennett International Horse Transport under import permit number IP07014837¹⁵⁵ (the stallions Zenno Rob Roy and Jungle Pocket and the mares Orchid Oasis, Acoustics, Western World, TH Dancer, Full of Laughter and Royal Successor). Two other mares that were included in the import permit (Derobe and Citronee) experienced problems during PEQ and did not travel to Australia.¹⁵⁶

Table 7.7 shows the vaccination details for each of the horses.

Table 7.7 Consignment 6: vaccination details

Name of horse	Vaccine and date		Vaccine and date	
Stravinsky	Nisseiken	12.03.07	Nisseiken	09.04.07
Rock of Gibraltar	Nisseiken	12.03.07	Nisseiken	09.04.07
Snitzel	Kaketsuken	25.04.07	Kaketsuken	25.05.07
Grandera	Kaketsuken	11.06.07	Kaketsuken	12.07.07
Black Hawk	Nisseiken	07.06.07	Nisseiken	07.07.07
Zenno Rob Roy	Kaketsuken	01.05.06	Kaketsuken	25.04.07
Jungle Pocket	Kaketsuken	01.05.06	Kaketsuken	25.04.07
Orchid Oasis	Kaketsuken	23.05.07	Kaketsuken	29.06.07
Acoustics	Kaketsuken	23.05.07	Kaketsuken	29.06.07
Western World	Kaketsuken	23.05.07	Kaketsuken	29.06.07
TH Dancer	Kaketsuken	23.05.07	Kaketsuken	29.06.07
Full of Laughter	Kaketsuken	23.05.07	Kaketsuken	29.06.07
Royal Successor	Kaketsuken	23.05.07	Kaketsuken	29.06.07

Note: All horses but Zenno Rob Roy and Jungle Pocket were certified in their health certificates as vaccinated twice at an interval of four to six weeks. Zenno Rob Roy and Jungle Pocket were certified as vaccinated once as a booster to a certified primary course of vaccination.

¹⁵² IRT.0001.004.0077.

¹⁵³ IRT.0001.004.0099.

¹⁵⁴ IRT.0001.004.0088.

¹⁵⁵ CBHT.0001.001.0197.

¹⁵⁶ T1358; CBHT.0001.001.0120; CBHT.0001.001.0121; CBHT.0001.001.0122.

The horses' health certificates certify vaccination against equine influenza during the six months preceding PEQ. This is in contrast to the import permits that required vaccination during the four months before PEQ.

Under the conditions of their import permits each of the horses was required to be held in PEQ for 21 days before export. The six mares underwent PEQ at Northern Farm Kuko, Chitose, Hokkaido, from 17 July to 6 August 2007. The seven stallions were in quarantine at four different locations:

- (a) Snitzel, Zenno Rob Roy and Jungle Pocket—from 17 July to 6 August at the Shaddai Stallion Station, which is near the towns of Abira and Atsuma, Hokkaido¹⁵⁷
- (b) Stravinsky and Rock of Gibraltar—from 17 July to 6 August at the Japanese Blood Horse Breeders Association's Shizunai Stallion Station at Shinhidaka, Hokkaido
- (c) Grandera—from 17 July to 6 August at the East Stud near Urakawa, Hokkaido
- (d) Black Hawk—from 17 July to 6 August at the Breeders' Stallion Station at Hidaka, Hokkaido.¹⁵⁸

With the exception of Northern Farm Kuko in Chitose, each of these premises was in an area that was subsequently the subject of notification of an outbreak of equine influenza to the OIE. The notifications were as follows:

- (a) farms at Urakawa on 14, 18, 20 and 29 August
- (b) farms at Shinhidaka on 16 and 17 August
- (c) a farm at Abira on 26 August
- (d) a farm at Atsuma on 22 August
- (e) farms at Hidaka on 18, 20 and 22 August and 6 September.¹⁵⁹

With one exception (the outbreak at Urakawa on 18 August) the affected population as notified was described as 'racehorses'.

There was evidence in relation to the PEQ and transport of these horses to Chitose Airport, where they were loaded for carriage to Melbourne on Cathay Pacific cargo flight CX023. The charter of that flight was organised by Crispin Bennett International Horse Transport. The aircraft departed at about 6.15 pm

¹⁵⁷ WIT.SHAD.003.0001.

¹⁵⁸ EII.0006.001.0142.

¹⁵⁹ EII.0008.001.0011.

local time on 7 August. The evidence as to what happened in PEQ and during the subsequent road and air transport comes from six grooms and a veterinarian.

Mr Basil Keane, an employee of Coolmore Stud, looked after Rock of Gibraltar during the horse's PEQ at Shizunai Stallion Station.¹⁶⁰ A Japanese groom was assigned to Stravinsky. The two horses were kept in a fenced quarantine area that contained a barn and two fenced turnout areas. The horses were in adjacent stalls in the barn but were said not to be in direct contact. Mr Keane stayed at a residence in the quarantine area. His evidence was that biosecurity measures were in place and that people having contact with the horses were required to wear overalls and to wash their hands and use a foot bath when entering and leaving the area.¹⁶¹ It is likely, however, that veterinarians, farriers and others who had contact with the horses during PEQ did not always wear protective clothing or wash carefully before entering.¹⁶² Although Mr Keane left the quarantine area from time to time, he says he did not have contact with horses outside it. His observation was that Rock of Gibraltar had a normal appetite and temperature and behaved normally during quarantine.

Mr Emmett Jolley and Mr Aaron Goodworth, grooms employed by the Darley Stud, spent three weeks in quarantine with Grandera at the East Stud¹⁶³, which was not owned or operated by Darley. The PEQ premises were enclosed by a boundary fence about 150 metres distant and secured by a locked gate. There was a stable and a turnout paddock. Grandera was the only horse staying in the quarantine area. Mr Jolley and Mr Goodworth lived in a house beyond the fence. They used a foot bath when entering and leaving the quarantine area but were not required to shower before entering or leaving. Mr Jolley and Mr Goodworth did not come into contact with any other horses during the period.¹⁶⁴ During quarantine a farrier tended to Grandera. The farrier did not wear overalls and did not, the evidence suggests, clean or disinfect his equipment before use. It is unlikely, however, that he had had contact with other horses earlier on that day because he apparently started work in the quarantine area at about 6.00 am.¹⁶⁵

During quarantine Grandera was observed to be in good health. His temperature was taken twice a day and was normal. Mr Goodworth left the East Stud on the last day of quarantine, 6 August 2007, and returned to Australia.¹⁶⁶

¹⁶⁰ EII.0006.001.0018; T816–T817.

¹⁶¹ WIT.COOL.003.0001 at paras 4–6.

¹⁶² T811–T813 (Keane).

¹⁶³ EII.0005.002.0019; T1257–T1260 (Jolley).

¹⁶⁴ WIT.DLYA.009.0001 at para. 8; T1260.

¹⁶⁵ WIT.DLYA.002.0001 at para. 7; T1259–T1262 (Jolley).

¹⁶⁶ WIT.DLYA.009.0001 at para. 13.

Mr Jolley accompanied Grandera to the airport. The transporter in which Grandera travelled to Chitose Airport had the appearance of having been recently cleaned, as the interior was wet.¹⁶⁷ Mr Jolley accompanied Grandera on to the aircraft and then handed him to Mr McDonald, who accompanied the horse to Australia.

Mr McDonald was contracted by International Racehorse Transport to be responsible for three of the horses travelling to Sydney—Stravinsky, Grandera and Snitzel.¹⁶⁸ He met the horses at the cargo loading area at Chitose Airport on 7 August before they were loaded on to the aircraft. He did not attend any of those horses in PEQ.

Dr Nobuo Tsunoda is a veterinarian and the manager of Shaddai Stallion Station.¹⁶⁹ Mr Masayuki Noomote and Mr Kazushi Kudo are grooms employed at that station. Each of these gave answers to written questions prepared by Counsel Assisting the Inquiry. Their evidence was not tested by cross-examination. It was to the following effect. Mr Noomote was the head groom and looked after Snitzel during his PEQ. Mr Kudo looked after Jungle Pocket during PEQ. Those stallions and Zenno Rob Roy underwent quarantine in separate stalls with adjoining turnout paddocks in a quarantine barn at the Shaddai Stallion Station. Each stall and turnout paddock was physically isolated from the other to prevent one horse coming into contact with another. Each of the grooms and other people attending the horses during quarantine was required to wear protective clothing and headwear and to disinfect footwear on entering and leaving the quarantine barn. The quarantine was supervised by officers of the Animal Quarantine Service, which is a division of the Japanese Ministry of Agriculture, Forestry and Fisheries. The witnesses did not know what steps the Animal Quarantine Service took to verify that quarantine was being performed appropriately and in accordance with required procedures. During quarantine none of the three stallions exhibited any symptoms of equine influenza.¹⁷⁰

On 7 August the stallions and mares were transported to Chitose Airport. The road transportation of Jungle Pocket, Zenno Rob Roy, Snitzel and Black Hawk was carried out by the Sato Horse Co. Limited in two horse floats. Black Hawk was loaded into a float at the Breeders' Stallion Station at Hidaka. The float then proceeded to the Shaddai Stallion Station, where Snitzel was loaded into the float with Black Hawk. Jungle Pocket and Zenno Rob Roy were loaded into the other float. The two floats then travelled to Chitose Airport.¹⁷¹ Stravinsky

¹⁶⁷ WIT.DLYA.002.0001 at para. 8.

¹⁶⁸ WIT.IRT.005.0001 at para. 13.

¹⁶⁹ ARRO.INQ.001.0002; ARRO.INQ.001.0001; EII.0006.001.0111.

¹⁷⁰ WIT.SHAD.003.0001 at para. 2(h).

¹⁷¹ WIT.SHAD.003.0001 at para. 4(b).

and Rock of Gibraltar were transported in separate trucks from Shizunai Stallion Station to Chitose Airport.¹⁷² Grandera was also transported in a separate vehicle from Urakawa to the airport. The evidence before the Inquiry does not reveal who transported the six mares by road to the airport.

At Chitose Airport the horses were loaded into airstalls inside a large cargo shed at an isolated part of the airport. The vehicles were driven into the shed one by one, and the horses were walked from the vehicles up a loading ramp and straight into an airstall at the other end of the ramp. When loaded, the airstalls were pulled by a tug out of the shed and to the aircraft, where they were placed on board.¹⁷³ Each stallion was in a separate airstall. The mares travelled together in airstalls. A number of people assisted in the loading, among them the transport drivers, Japanese representatives of International Racehorse Transport, and the grooms. The stallions were loaded at the front of the aircraft so that they were separated from the mares.¹⁷⁴ Mr McDonald, who was responsible for Grandera, Stravinsky and Snitzel, gave evidence that it was often best to have minimal contact with the horses during travel because they could be extremely nervous and were better when left alone for a long time.¹⁷⁵ Nevertheless, Mr McDonald said he would normally enter the airstalls to check the horses' physical wellbeing and their food and water.

The evidence in relation to the transport of these 13 horses to the airport and their loading on to the aircraft does not enable me to make a finding that there was no possibility of contamination of any of the horses by equine influenza during the process. What can be said, though, is that during transportation and loading there were opportunities for the horses—some more than others—to come into contact with the virus by means of contaminated people, equipment or horse transport vehicles, and possibly other horses.

7.6.1 Arrival in Melbourne

Flight CX23 went from Chitose to Melbourne via Hong Kong. In Hong Kong some cargo was taken on board, and the grooms and veterinarian left the aircraft to wait in an airport lounge. They had no contact with horses in that city. The aircraft arrived at Tullamarine Airport at about 11.00 am on 8 August 2007.

At Tullamarine, ground handling services were provided by Menzies Aviation. The quarantine clearance of the horses at the airport was carried out by quarantine officers and not a veterinarian. Quarantine officers Mr Benjamin

¹⁷² WIT.COOL.003.0001 at para. 8.

¹⁷³ T817–T819 (Keane); T895–T896 (McDonald).

¹⁷⁴ T897 (McDonald).

¹⁷⁵ T904, T907.

Wajcman and Mr Dennis Alegre from the Air Cargo Unit met flight CX23 on its arrival in Melbourne and inspected the interior and containers, including the airstalls, looking for material of risk. Mr Alegre saw some hay on the floor of the aircraft but did not check the passengers' personal effects because he considered that this would be done in Sydney. He did not contact anyone at AQIS in Sydney in relation to the aircraft.¹⁷⁶

Mr Mark Pettit and Mr Chris Tyrell, quarantine officers with Airport Operations at Tullamarine Airport, attended flight CX23 to clear the passengers on board. Mr Pettit said that his usual process was to check the incoming passenger cards to see if any material of risk had been declared.¹⁷⁷ If such material had been declared, or if he suspected that a person was carrying such material, he would check the declared items or search the passenger's bags. Mr Pettit could not recall whether he searched the bags or checked the shoes of the passengers on board flight CX23, but he did remember asking the grooms whether any of them was carrying material of risk. Mr Pettit did not go into the cargo hold or inspect any of the cargo. After viewing the disinsection certificates and empty cans, he left the aircraft, having been on board for fewer than five minutes.

Mr Crispin Bennett and two grooms contracted to Crispin Bennett International Horse Transport, Mr John Jeffrie and Mr Alex Papandreou, helped unload the six mares and two of the stallions (Zenno Rob Roy and Jungle Pocket). Ms Brooke Matthews, International Racehorse Transport operations manager, and Mr Kenneth Best, an IRT groom, also came to the airport to assist with the unloading of the stallion imported by IRT, Black Hawk. Ms Matthews, an ASIC holder, accompanied Mr Best to the aircraft. Messrs Bennett, Jeffrie and Papandreou also boarded the aircraft.

Aboard the aircraft Ms Matthews did not touch any of the horses, and she returned to the unloading area on foot. Mr Bennett, too, soon left the aircraft, after directing Mr Jeffrie and Mr Papandreou to the stalls they were to ride in. Mr Best accompanied Black Hawk off the aircraft inside an airstall.¹⁷⁸ The Japanese grooms travelled from the aircraft with the other two stallions, Zenno Rob Roy and Jungle Pocket. Mr Jeffrie and Mr Best accompanied the mares to the unloading area.

Two truck drivers met this consignment—Mr Tony Hore of Sydney Horse Transport and Mr Lloyd Baxter of JG Goldner Pty Ltd. They were both wearing disposable protective overalls provided by Mr Bennett.¹⁷⁹ Mr Hore

¹⁷⁶ WIT.AQIS.026.0001 at paras 13, 25.

¹⁷⁷ WIT.AQIS.030.0001 at para. 13.

¹⁷⁸ WIT.IRT.011.0001 at para. 2.

¹⁷⁹ T4376 (Hore); T4397 (Baxter).

said it was the first time he had been asked to wear overalls in the five or six occasions he had attended the airport in the previous 12 months.¹⁸⁰ Mr Bennett and Mr Jeffrie also wore overalls.¹⁸¹

The horses were transferred from the airstalls to the two vehicles on the bitumen adjacent to the Menzies cargo facility, using an unloading ramp owned and supplied by Crispin Bennett International Horse Transport.¹⁸² The unloading area was not surrounded by a fence, but an effort was made to contain the area by positioning the unloading ramp and the trucks near the building. Mr Bennett opened the front door of the airstalls.¹⁸³ The horses then walked about 10 metres down the ramp to the vehicles.¹⁸⁴ Mr Wajcman and Mr Alegre identified the horses with assistance from representatives of International Racehorse Transport and Crispin Bennett International Horse Transport, checking them against the identification documents obtained from the controller's diary. The quarantine officers also checked that the horses showed no visible signs of injury, illness or distress. After the horses had been unloaded, the grooms who had come into Melbourne on the flight and accompanied the horses in the airstalls returned to the aircraft.

Mr Baxter was to transport the three stallions to Spotswood, while Mr Hore was to take the mares there. When the airstalls arrived at the unloading area Mr Baxter did not assist with the unloading of the stallions because each of them had its own groom.¹⁸⁵ Mr Hore did not lead the mares on to the trucks but said he helped the grooms by directing the horses into the compartments in the truck and securing them with the permanent rubber straps inside each compartment.¹⁸⁶ When the horses were loaded the vehicles travelled directly to Spotswood. Mr Best travelled to Spotswood in the back of the transport vehicle with Black Hawk.¹⁸⁷ The trucks were not sealed before leaving the airport.¹⁸⁸

Mr Wajcman recalled that a female employee of International Racehorse Transport, probably Ms Matthews, swept a quantity of horse waste off the ground in the unloading area. Mr Wajcman and Mr Alegre cleaned a small amount of hay and manure from the unloading area and ramp and placed it in a quarantine bin. Both quarantine officers were unsure whether the unloading

¹⁸⁰ WIT.SHT.002.0001 at para. 3; T4389–T4390 (Hore).

¹⁸¹ CBHT.0001.001.0179; WIT.CBHT.005.0001 at para. 7.

¹⁸² WIT.CBHT.001.0001 at para. 15.

¹⁸³ WIT.CBHT.005.0001 at para. 24.

¹⁸⁴ WIT.AQIS.028.0001 at para. 14.

¹⁸⁵ T4398.

¹⁸⁶ WIT.SHT.002.0001 at para. 3; T4374–T4376.

¹⁸⁷ WIT.IRT.011.0001 at para. 4.

¹⁸⁸ WIT.SHT.002.0001 at para. 3.

ramp and bitumen unloading area were disinfected after the horses had departed.

There was little evidence in relation to the cleaning and decontamination of the airstalls unloaded at Melbourne Airport. In his evidence, Mr Bennett said the airstalls and unloading ramp were taken to a cleaning area about 50 metres from the unloading area.¹⁸⁹ Mr Alegre and Mr Wajcman also gave evidence that they saw the airstalls being moved to an area near the Menzies building. It is understood that the airstalls are cleaned by RAMM Australia, which is contracted by the importers in Melbourne. The cleaning and disinfection process is monitored by AQIS staff, who ensure that the airstalls are cleaned to AQIS's standards and are isolated for 12 hours before being released from quarantine.

On arrival at Spotswood the three stallions were put in stalls number 2 (Black Hawk), 4 (Rob Roy) and 6 (Jungle Pocket) in the main stables. They were cared for during PAQ by Mr Papandreou. The six mares were placed in temporary horse stables in the cattle shed area and were cared for during PAQ by Ms Maryanne Pengelly. Mr Hore helped unload the mares and put them in the stables.¹⁹⁰

The transporters were cleaned and disinfected with Virkon™ by Mr Angelo Ravaneschi, assistant manager of Spotswood Quarantine Station.¹⁹¹ Both drivers said Mr Ravaneschi thoroughly cleaned the inside of the vehicle, including the ceiling and walls, and washed the exterior of the vehicle.¹⁹² Mr Gundry said everyone (except the truck drivers) who had had contact with the horses was required to observe shower-out procedures. He agreed that this was necessary.¹⁹³

Investigations¹⁹⁴ tend to support the conclusion that none of the horses transported by Mr Baxter or Mr Hore after they left Spotswood on 8 August 2007 was infected by the virus following transportation in those vehicles and no link can be established between these vehicles and the Maitland event.

Mr Baxter's movements after leaving Spotswood Quarantine Station are outlined in his driver's sheets and logbook¹⁹⁵:

¹⁸⁹ WIT.CBHT.001.0001 at para. 24.

¹⁹⁰ T4378.

¹⁹¹ T3155–T3156; T3165; T3233 (Gundry).

¹⁹² T4378–T4379; T4391–T4393 (Hore); T4400 (Baxter).

¹⁹³ T3202; T3231–T232.

¹⁹⁴ WIT.INQ.006.0001; WIT.INQ.010.0001.

¹⁹⁵ GHT.0001.001.0004; GHT.INQ.001.0001, DAFF.0001.217.6593.

- (a) After leaving Spotswood Mr Baxter collected a horse called Danekeeper from the Epsom Vet Centre and delivered it to Talwood Park, near Whittlesea, before returning to the Goldner Depot at Diggers Rest, where the truck was kept overnight. Mr Baxter did not believe the truck was used that evening by any other drivers.¹⁹⁶
- (b) On the morning of 9 August 2008 Mr Baxter collected Thisonesonme from Caulfield, Tipungwuti from Flemington, Rubiton Filly from Glenfern Park, and Shortbread and Fernland from Horsham and drove towards the South Australian border.
- (c) Between midnight and 12.30 pm on 10 August 2007 Mr Baxter met Mr James Goldner at either Edenhope or Nhill, near the Victoria – South Australia border, where they exchanged trailers. Mr Baxter returned to Melbourne with Goldner’s trailer, arriving in Melbourne at 5.00 am on 10 August 2007.
- (d) Investigations by the Inquiry indicate that Mr Goldner returned to South Australia on 10 August 2007 with Mr Baxter’s trailer and that the trailer was never taken to New South Wales.¹⁹⁷ The trailer remained in South Australia until 13 August 2007, when it was returned to Victoria. It is common practice for a vehicle from South Australia and a vehicle from Victoria to meet at Nhill or Edenhope to exchange trailers.

Mr Hore’s movements after leaving Spotswood Quarantine Station are outlined in his driver’s sheets and logbook.¹⁹⁸ In his evidence, Mr Hore indicated that no other documentation was created contemporaneously with delivery or collection of the horses (such as delivery dockets or receipts) that recorded the transactions.¹⁹⁹

- (a) After leaving Spotswood Mr Hore collected Carmengetit from Flemington Racecourse, Hillswood Pandora, Rule the Stars, Woodmount Splash, Over the Top, Karanah Park Mayfair and Sabtah Sabri from Plumpton Park, and Buzz from Benalla.
- (b) Mr Hore stayed the night of 8 August 2007 in Berrigan, leaving at 4.45 am on 9 August. He stopped for a break at Narranderra before continuing on to collect Rowallan Dark Eyes and Rowallan Dee Jay from Beckom, near West Wyalong. He continued on to Cowra to collect Aloha Czama, Tycoon Flash and Innocent Lass. He arrived at the Sydney Horse Transport Rosehill Depot at 5.00 pm on 9 August 2007.

¹⁹⁶ T4407–T4408.

¹⁹⁷ WIT.INQ.010.0001 at para. 3.

¹⁹⁸ SHT.0001.001.0014; SHT.INQ.001.0001.

¹⁹⁹ T4394.

- (c) On arrival at Rosehill, Mr Hore unloaded the horses from the truck and put them in stables, writing each horse's name on a whiteboard on the stable. No other paperwork or receipts were created to record delivery to the depot.²⁰⁰ Although the driver's sheet shows that the horses were bound for various other locations, Mr Hore said he took them only as far as the depot and that they would have been collected by other Sydney drivers and taken on to their ultimate destinations. Mr Hore could not specifically recall whether he returned to his home in Agnes Banks that evening, but he thought it likely he had stayed at the depot and slept in the truck overnight to make an early start the next day.
- (d) At 6.30 am on 10 August 2007 Mr Hore loaded three horses—Duballogue, Swords and Innovator—that had been stabled at the depot into his truck and drove to Port Macquarie, where he collected a horse named Tuff Call.
- (e) Mr Hore then travelled north to Macksville Showground, where he made a changeover with a Queensland vehicle before heading back to Rosehill, arriving at 8.00 pm on 10 August. This truck was kept over the weekend at Mr Hore's home in Agnes Banks and was not driven again until 13 August 2007.

In August 2007 Mr Hore's wife, Ms Michelle Hore, was working for Ms Alexandra Clarke at a property in Maraylya.²⁰¹ About 10 horses were on the property in early August, including three that subsequently attended the Maitland event with Ms Clarke and her daughter, Ms Augusta Clarke, who worked at a riding school at Centennial Parklands Equestrian Centre.²⁰² As far as he could recall, Mr Hore did not have contact with his wife on the night of 8 August 2007 (believing he stayed overnight at the depot²⁰³), and it is therefore unlikely that there was an opportunity for transmission of the equine influenza virus between Mr Hore and the property at Maraylya. The three horses from Maraylya that attended the Maitland event did not contract equine influenza until the middle of September 2007.²⁰⁴

The Inquiry heard little evidence about the transport, arrival and PAQ of the 18 standardbred stallions that came to Spotswood from the United States on 11 August 2007. The stallions had been quarantined at Walnridge Farm, Hornerstown – Arnevtown Road, Cream Ridge, New Jersey. They were accompanied from New York by Ms Pauline Cushing, an International Racehorse Transport groom who was, I thought, experienced, competent and

²⁰⁰ T4394–T4395.

²⁰¹ T4388.

²⁰² WIT.MAIT.033.0001 at para. 1.

²⁰³ T4388–T4389.

²⁰⁴ WIT.MAIT.033.0001 at para. 28.

diligent. Ms Cushing did not travel to Spotswood because she was to replace Mr Hirose at Eastern Creek.²⁰⁵ At Spotswood the stallions from the United States were placed in stalls numbered 13, 14 and 16 to 33 in the main stables and were attended to during the PAQ period by Mr Best, Mr Michael Hewitt and Mr Hirose.²⁰⁶

7.6.2 Arrival in Sydney

Having unloaded the six mares and three stallions in Melbourne, the Cathay Pacific aircraft flew on to Sydney, its status having changed to domestic flight CX22, and arrived at Sydney (Kingsford Smith) Airport at about 3.00 pm. Ms Gianna Bucciarelli was the customs officer responsible for clearing the crew and passengers on the flight. She said she was told the passengers had to be cleared in Sydney because they had not been cleared for customs and immigration purposes in Melbourne. She thought this unusual because passengers were usually cleared on first landfall in Australia.²⁰⁷

Ms Bucciarelli's evidence was that she advised a female AQIS officer on the tarmac that the aircraft had arrived and that there were grooms on board. She says she was told AQIS was not required to board the flight because it was a domestic flight from Melbourne.²⁰⁸ Although the identity of the female officer has never been confirmed, Ms Pedagandham was the AQIS quarantine officer on duty on the afternoon of 8 August 2007. It was suggested to, and denied by, Ms Pedagandham that she might have been that female AQIS officer. She said that her controller did not tell her there was a flight from Melbourne that she was required to clear.²⁰⁹ The AQIS 'Standard Pratique Report' for 8 August shows that flight CX23 was a 'cleared freighter'.²¹⁰

Mr Crispin Bennett had chartered the Cathay Pacific aircraft from Japan to Melbourne, and one of the conditions of the charter was that there be a single airway bill. To satisfy this condition, Mr Bennett arranged for all the horses to be on a single bill and for customs and quarantine clearance to take place there. Mr Bennett understood that the four International Racehorse Transport horses remaining on the aircraft would then be carried as domestic freight from Melbourne to Sydney.²¹¹ The potential for cross-infection—and generally for error, to which AQIS's allowance of this irregular practice gave rise—should have been recognised by AQIS. Melbourne and Sydney officials should have

²⁰⁵ WIT.IRT.003.0001 at para. 24.

²⁰⁶ DAFF.0001.012.0298; T3140 (Gundry); WIT.IRT.011.0001 at para. 5.

²⁰⁷ T695.

²⁰⁸ T696.

²⁰⁹ T705.

²¹⁰ DAFF.0001.159.0073.

²¹¹ T1358–T1359.

been communicating, so that Sydney was alerted to the need to have the aircraft and its crew, passengers and cargo cleared by quarantine.

Menzies Aviation provided ground handling services for this flight. Evidence from each of the people involved in unloading the flight indicates that none of them came into contact with horses in the 48 hours after providing services for that flight.²¹² No evidence was produced to me to suggest that there is a link between any of these people and the Maitland event.

Mr Fradd was the Aero-Care officer controlling the transfer facility at Sydney (Kingsford Smith) Airport at the time.²¹³ Dr Hee Song was the AQIS veterinary officer who supervised quarantine clearance of the horses at the airport. Two truck drivers attended the consignment—Mr Atkinson of Coolmore and Mr Edwin Clarke of the Livestock Transport Group. Dr Hee Song gave them overalls, which they put on. By the time the aircraft was parked on the tarmac near the transfer facility, representatives of Coolmore (Mr Magnier and Mr Carey), Darley Stud (Mr Sunderland and Mr McKay) and Arrowfield (Mr Martin Story and Mr Brad Bowd) were present. Mr Cornter was also present. He accompanied Messrs Magnier, Carey, McKay and Story on to the aircraft. Mr Magnier did not recall being given a visitor pass before boarding.²¹⁴ Dr Hee Song did not know that Mr Cornter was taking people on to the aircraft before the horses were unloaded; nor was he aware that those people were in contact with the horses on the aircraft.²¹⁵

Mr Story did not enter the aircraft or touch any of the horses. Mr Keane showed Mr Magnier the horses inside the aircraft. Mr McKay and Mr Bowd went on to the aircraft to accompany them when they were unloaded. At some time before then, Messrs Cornter, Magnier, Carey, Noomote and Kudo and Dr Tsunoda left the aircraft. Mr Bowd and Mr McKay remained on board with Mr Keane and Mr McDonald, to accompany the horses in the airstalls as they were unloaded and transported to the transfer facility. Mr Keane left the aircraft with Rock of Gibraltar.²¹⁶ Mr Bowd travelled in the airstall with Snitzel.²¹⁷ Mr McDonald travelled with Stravinsky and Mr McKay unloaded Grandera.

The airstalls were brought into the transfer facility one at a time and unloaded. Stravinsky and Rock of Gibraltar were loaded on to the Coolmore truck driven by Mr Atkinson. Snitzel and Grandera were loaded on to the Livestock

²¹² WIT.MENZ.002.0001; WIT.MENZ.005.0001; WIT.MENZ.006.0001; WIT.MENZ.007.0001; WIT.MENZ.008.0001.

²¹³ WIT.AERO.002.0001; AQIS.1000.048.0009_R; AERO.0001.001.0047.

²¹⁴ T576.

²¹⁵ T602; T620.

²¹⁶ WIT.COOL.006.0001 at paras 29–30.

²¹⁷ WIT.ARRO.003.0001 at para. 9.

Transport Group truck driven by Mr Clarke. Mr Carey accompanied Rock of Gibraltar and Stravinsky to Eastern Creek. Mr Bowd and Mr McKay travelled with Snitzel and Grandera. Dr Hee Song inspected the horses as they were loaded into the vehicles. He could not recall instructing Mr McKay and Mr Sunderland that they should stay away from the horses that were being unloaded.²¹⁸

There was some confusion during the unloading of the horses because Dr Hee Song believed that there would be five horses on the flight but only four were unloaded. He did not have a copy of the import permit and thought the difference in the horse numbers was not of consequence because he believed the horses on the aircraft had been cleared when they passed through Melbourne, and that a decision to unload the fifth horse there must have been made at short notice.²¹⁹ As I say, this was a misunderstanding that should not have occurred.

Once the transport vehicles had departed, Mr Fradd collected the waste from the unloading area and put the material in the yellow quarantine bins. He then used a fire hose to hose down the area. He did not disinfect the unloading area on this occasion but I consider this to be a most unlikely contributor to the outbreak for reasons I have expressed elsewhere concerning the possibility that the virus may have escaped from the airport, and also for the reason that it really requires the virus to have been carried out on the feet of an entrant to the unloading area after the departure of the horses.²²⁰

The airstalls were shrink-wrapped inside the compound by Mr Paul Connelly, Mr Ippolito and Mr Angus. An AQIS officer inspected the stalls once this had been done. The stalls were then loaded into the semi-trailer and Mr Muir transported them to the quarantine-approved premises at Camellia²²¹, where the stalls were cleaned and disinfected by Mr Livingstone. On 15 August 2007 Mr Javier Miro, an AQIS officer from Centralised Appointments attended the SITA quarantine-approved premises and cleared all but two of the airstalls for return to Sydney (Kingsford Smith) Airport. The final two stalls were inspected and cleared on 20 August 2007.²²²

Each vehicle containing the horses was driven directly to Eastern Creek. There the unloading was supervised by Ms Christesen. As each horse was unloaded she checked its identity and advised the grooms of its stall number. Rock of Gibraltar and Stravinsky were placed in row E in stalls 15 and 4, at each end of

²¹⁸ T680.

²¹⁹ T639–T640.

²²⁰ WIT.AERO.002.0001 at para. 20.

²²¹ WIT.SITA.007.0001 at para. 11.

²²² SITA.0001.001.0079_R; DAFF.0001.873.0005 at 0017–0020.

the row of Coolmore horses that had arrived from Ireland in consignment 5 on 7 August. Snitzel was placed in row C, in stall 8, between Rakti and Golden Snake. Grandera was placed in row B in stall 12. The stalls on either side of him were not occupied.

The Coolmore truck driven by Mr Atkinson was not used again until 24 August 2007.²²³ Investigations indicate that none of the horses transported by Mr Atkinson or Mr Clarke after 8 August 2007 contracted equine influenza immediately following their carriage and that there is no connection between these vehicles or their drivers and any horses that attended the Maitland event.

The import documents handed to Dr Hee Song were taken to the AQIS office at Rosebery, where an AQIS veterinarian prepared a veterinary audit report.²²⁴ Discrepancies between the conditions of the permit and the various matters certified in the health certificates were discovered. For example, the import permit required vaccination within four months of PEQ, but the health certificate certified that vaccination had taken place within six months of it; the vaccinations for Rock of Gibraltar and Stravinsky had been administered just outside the four months required by the import permit. The veterinary officer notified Drs Widders and Hee Song of this and the matter was referred to Dr Ainslie Brown in Canberra.²²⁵ The matter was taken no further on the basis that it was not seen to be a ‘problem’²²⁶, among other things because—contrary to the import permit conditions—the Biosecurity Australia policy for horses from Japan required vaccination within six, rather than four, months.²²⁷

²²³ WIT.COOL.005.0001 at para. 29.

²²⁴ AQIS.2002.008.0010; WIT.AQIS.018.0001 at para. 12; WIT.AQIS.025.0001 at paras 9–12.

²²⁵ T625–T626 (Hee Song); T1027–T1029 (Widders).

²²⁶ T626 (Hee Song); T1029–T1030 (Widders).

²²⁷ AQIS.0001.001.0363 at 0365; T2658 (Brown).

8 Events at Eastern Creek Quarantine Station between 1 to 23 August 2007

The first restricted-traffic quarantine ‘window’ was scheduled for 13 to 17 July 2007.¹ It was subsequently extended in consultation with the importers concerned, International Racehorse Transport and New Zealand Bloodstock, to include a consignment of 20 horses that arrived from the United States on 18 July.² Only nine other horses were received during the July window (including some geldings³) imported from Hong Kong; this consignment arrived on 17 July. The horses in the July intake underwent 14 days of post-arrival quarantine and were released on 1 August.⁴

This chapter provides an overview of preparations for the six consignments that arrived between 3 and 8 August 2007. It then summarises the events during PAQ until equine influenza was detected in test results received from the Australian Animal Health Laboratory on 23 August 2007.

8.1 Before the August intake

8.1.1 Cleaning the horse stalls and yards and disposing of waste

At the completion of each PAQ period, generally on the day the last horse is released, the importers arrange for the horse stalls and yards to be cleaned.⁵ The stalls, drinkers and feed bins are mucked out and hosed, and all surfaces are cleaned with a steam pressure cleaner.⁶ The cleaning equipment is provided by AQIS and remains at the Quarantine Station. General waste is dumped into

¹ DAFF.0001.566.0342.

² The schedule was revised and a new version, dated 25 June 2007, was issued by Mr Greg Hankins: see AQIS.2001.007.0010.

³ After consulting other importers, AQIS approved New Zealand Bloodstock’s importation of geldings in the July intake: see AQIS.2001.006.0123.

⁴ In accordance with the ‘Release from Quarantine’ signed by Dr Phillip Widders on 27 July 2007: see AQIS.2001.006.0077 at 0078. An example of a release from quarantine is at DAFF.0001.069.2584.

⁵ T2240–T2241, T2251.

⁶ T2241. See also the section on ‘Finalisation of quarantine’ in the International Race Horse Transport guidelines: IRT.0001.001.0033 at 0037.

a muck pit then transferred into a bin for disposal.⁷ AQIS arranges for an independent contractor to dispose of the waste.⁸

Mr Greg Hankins did not supervise the cleaning of the horse stalls following the July intake. Mr John Holloway could not recall doing so either.⁹ He did recall that there had been a trial of a small digger for cleaning the horse stalls following the July intake, although he was not involved.¹⁰ Both Mr Hankins and Mr Holloway said the cleaning would have been supervised by an AQIS officer at the Quarantine Station, but neither was able to identify that officer.

Mr Hankins conducted an inspection after the cleaning had occurred and ‘saw clean stables’.¹¹ He said that before August draft ‘check sheets and forms’ had been prepared but there was no procedure for recording that the horse stalls had been inspected by an AQIS officer after cleaning. Nor were the contract cleaners required to produce any certificate or document recording what they had done.¹² Ms Rhonda Christesen said she had prepared a list¹³ for the purpose of checking, among other things, that all the stalls and yards had been cleaned at the end of each intake.¹⁴ In the circumstances, I am satisfied that the stalls and yards were cleaned following the July intake.

Throughout the quarantine period, grooms deposited waste, including horse manure and soiled bedding, into a waste bay near the horse surgery. A contractor, Mr Phillip Lean, was responsible for depositing that waste into an industrial bin for disposal at the end of the quarantine period. Mr Lean said that if the waste could not be disposed of before the arrival of the next intake of horses it was segregated from new waste in the waste bay ‘to avoid any possibility of cross-contamination’.¹⁵

8.1.2 Cleaning and preparation of the grooms’ quarters

The grooms’ quarters consist of a communal living area, kitchen and laundry and a separate accommodation wing with nine bedrooms, two showers and toilets, one bath and toilet, and the veterinarians’ room.¹⁶ The quarters are used

⁷ WIT.AQIS.013.0001; WIT.AQIS.033.0001.

⁸ CORR.0004.005.0344.

⁹ T2552.

¹⁰ T2551–T2552.

¹¹ T2250–T2251.

¹² T2251.

¹³ DAFF.0001.611.0726.

¹⁴ T1447.

¹⁵ WIT.AQIS.033.0001.

¹⁶ For the layout of the grooms’ quarters see AQIS.1000.002.0063 and AQIS.INQ.001.0078.

to accommodate on-site grooms caring for horses. They are commercially cleaned at the end of each quarantine period, by cleaners arranged by AQIS.¹⁷

On 2 August Ms Christesen sent a facsimile to a commercial cleaner, Building and Industrial Cleaning Services, asking that it urgently carry out a 'general clean only' of the grooms' quarters in preparation for the arrival of grooms the following day.¹⁸ Ms Christesen's instructions were that it was not necessary for 'the carpet or lounges to be steam cleaned this time'. There is no record of when that cleaning was carried out. Ms Christesen's practice was to check that the grooms' quarters had been satisfactorily cleaned.¹⁹ Ms Lynleigh Dressing, administration manager of International Racehorse Transport, visited the Quarantine Station on 6 August and inspected the bedrooms and communal areas to make sure they were clean. In previous years she had expressed concern about the cleanliness of the grooms' quarters. She found, however, that under the management of Mr Hankins and Ms Christesen cleanliness and maintenance had been 'less of a problem'.²⁰

On 6 August Ms Dressing attended the station to prepare the grooms' quarters. By this time the quarantine window had opened and some horses had already arrived. Two grooms, Mr Tetsuhito Hirose and Ms Kim Maguire, were already in residence.

Ms Dressing made up the beds using AQIS-supplied linen and towels. According to her evidence, there were often insufficient clean linen, towels, blankets and pillows for all the beds and the linen press was usually in disarray.²¹ There is a question as to whether this was the case on this occasion²², but it is not necessary for me to answer it.

8.1.3 Catering

Since early 2002 International Racehorse Transport has engaged Diamonds Catering, a business conducted by Mr Ray and Mrs Carole Elliott, to provide on-site catering for the grooms during the 'restricted intake' periods, when many grooms stay at the station. Before each intake Mrs Elliott would present herself at Eastern Creek and obtain keys and access cards to allow unrestricted

¹⁷ WIT.IRT.009.0001 at para. 22.

¹⁸ See facsimile of Ms Christesen to building and Industrial Cleaning Services: AQIS.2001.007.0064.

¹⁹ WIT.AQIS.010.0001 at para. 28.

²⁰ WIT.IRT.009.0001 at para. 22.

²¹ WIT.IRT.009.0001 at para. 23.

²² T1985.

access to the equine enclosure throughout the quarantine period. She was required to sign the key register for the keys and the access card.²³

Mrs Elliott received a key to the pedestrian gate and an access card on 18 July.²⁴ She and her husband provided catering services to the on-site grooms daily until the end of the August intake.

8.1.4 Temporary accommodation for grooms

There were insufficient beds in the grooms' quarters to accommodate the 17 on-site grooms in the August intake. Mr Wallace of International Racehorse Transport arranged for the supply of three 'porta cabins' (two with two beds and one with three beds) to the equine enclosure on 6 August.

Ms Dressing recalled that the cabins had not been delivered when she arrived that morning. She telephoned the supplier to confirm delivery and later saw two trucks arrive with the cabins. Notwithstanding that some horses were already in quarantine, it is unclear whether the drivers were supervised by an AQIS officer while inside the equine enclosure or were required to comply with any entry or exit procedures, to wear protective clothing, and to decontaminate themselves and their vehicles before leaving the station. No record of their attendance can be discerned in the visitors book.²⁵ That said, I consider it unlikely that they had direct contact with the horses whilst delivering the cabins.

Ms Dressing subsequently inspected the porta cabins and made all the beds. She also arranged for the electricity to be connected via the staff amenities block, which had to be unlocked by an AQIS officer.

8.1.5 Delivery of feed and other supplies

The importers are responsible for ordering and arranging delivery of all bedding and feed for the horses before their arrival at Eastern Creek.²⁶ Ms Pauline Cushing, head groom for International Racehorse Transport, advised by email on 30 July of a delivery of feed scheduled for 2 August. Darley also arranged for a delivery of three pallets of feed later that week.²⁷ A delivery of shavings was scheduled for 8 August.

²³ WIT.DIAM.001.0001 at para. 4.

²⁴ See Eastern Creek key register: AQIS.1000.006.0005. See emails between Ms Dressing and Mr Holloway: AQIS.2001.006.0095.

²⁵ The Eastern Creek visitors book is at AQIS.1000.036.0001.

²⁶ AQIS.0002.014.0050.

²⁷ AQIS.2001.007.0061.

According to the supplier, Sydney Equestrian Supplies, the feed order was delivered on 1 August.²⁸ It made a further delivery the following day of an order for Crispin Bennett International Horse Transport.²⁹ The drivers gained access by using the intercom at the main gate to announce their arrival to staff and providing the name of a contact person for the delivery and a description of the supplies. Once through the main gate, the drivers were admitted through the second gate by AQIS staff. The supplies were offloaded at the feed shed with a forklift. The vehicles and their drivers did not have access to any other areas in the station. They did not have contact with the horses.

8.2 Arrival and induction of grooms

As noted, six consignments of horses, accompanied by grooms, arrived at Eastern Creek between 3 and 8 August 2007. Mr Hankins met the vehicles for the three consignments that arrived on 7 August and supervised the unloading of the horses. The unloading of the three consignments on 3, 4 and 8 August was supervised by Ms Christesen. The AQIS officer who supervised the unloading of the horses was also required to carry out an induction of the grooms accompanying the consignment.³⁰

8.2.1 Consignment 1

Consignment 1, consisting of three horses from the United States, arrived on 3 August. The authorising quarantine officer was Ms Christesen. The only groom who accompanied the horses was Ms Maguire, who had been engaged by Crispin Bennett International Horse Transport and International Racehorse Transport to care for the three US horses as well as seven general horses from the United Kingdom that arrived on 4 August as part of consignment 2. Ms Maguire had worked at the Quarantine Station on and off for eight or nine years. In each of those years she had been present for about seven or eight intakes.

Ms Maguire arrived at the station on the morning of 3 August.³¹ At some stage Ms Christesen gave her a key, an access card and a thermometer, and she signed for them in the key register. Ms Maguire could not recall being 'inducted' by Ms Christesen or anyone else; nor could she recall signing an 'Authorisation for groom to enter Eastern Creek Post Entry Animal Quarantine Station' or a 'Groom induction checklist & induction record', which both bear

²⁸ SES.0001.001.0001; SES.0001.001.0005.

²⁹ SES.0001.001.0006.

³⁰ T1431.

³¹ T1310–T1311.

her signature.³² Ms Christesen said she gave these documents to Ms Maguire. As, however, Ms Christesen regarded Ms Maguire as a ‘long-term’ groom she provided no explanation of the documents³³ and did not give Ms Maguire a copy of the four-page ‘Operating procedures for horses’.³⁴

Ms Maguire signed the groom authorisation form on 4 August, and it is unlikely that Ms Christesen performed any formal induction. Neither witness recalled it if she did. It is probable that Ms Christesen simply handed Ms Maguire the documents and asked her to read and sign them as a formality.

8.2.2 Consignment 2

Mr Hirose arrived at Eastern Creek on 4 August with the 12 UK horses in consignment 2. He had travelled in a transport vehicle from the airport to Eastern Creek. After the horses had been unloaded he took his luggage to the grooms’ quarters. He was not given an ‘induction’ as such, but he recalled receiving a key and an access card from an AQIS officer, probably Ms Christesen. He also signed and dated a groom authorisation form in her presence.³⁵ Mr Hirose did not read the authorisation and was unclear whether he had ticked the boxes in it himself.³⁶ Ms Christesen had no specific recollection of Mr Hirose’s arrival but said it would not have been necessary for her to have given him the ‘Operating procedures for horses’³⁷ because she regarded him as a ‘long-term’ groom.³⁸ Mr Hirose had no recollection of having received that document.³⁹

8.2.3 Consignment 3

Consignment 3, consisting of 10 horses from the United Kingdom and six from Ireland, arrived on 7 August. Eight grooms had travelled with the Darley stallions on the Dubai Air Wing flight—Messrs Mark Deering, Mark Delaney, Wayne Chapman and Jerry Keegan (who had travelled from Ireland), Messrs Chris Deschamps, Daniel Halford and Matthew Jackson (who had travelled from the United Kingdom) and Mr Aaron Goodworth. Mr Hankins was the authorising quarantine officer at Eastern Creek.

³² AQIS.1000.003.0050 & AQIS.1000.003.0052.

³³ T1433–T1434.

³⁴ T1431. The ‘Operating procedures for horses’ are at AQIS.0002.014.0050.

³⁵ AQIS.0002.014.0050. Ms Christesen’s name appears as the authorising quarantine officer on the first page of the groom authorisation.

³⁶ T744–T755, T783–T784.

³⁷ AQIS.0002.014.0050.

³⁸ T1431.

³⁹ T752.

Mr Hankins said he had spoken to a group of the Darley grooms at about midday to explain AQIS's expectations of their behaviour; this took place in the grooms' quarters. Mr John Sunderland and Ms Tania Henry-May, both from Darley management, were also present and corroborated Mr Hankins' recollection of events. Some of the grooms recalled that Mr Hankins spoke to them separately and that he gave them a number of documents about rules and procedures and asked them to read the groom authorisation, tick each of the boxes and sign the declaration. Others recalled only that Mr Hankins addressed the group. Nevertheless, all signed an authorisation in his presence. All also signed the key register and received an access card, gate and room keys, and a thermometer.

Mr Chapman recalled that he and Mr Keegan were the last to arrive at the grooms' quarters.⁴⁰ Mr Hankins spoke to them together in the common room. Mr Chapman said Mr Hankins gave them the groom authorisation form and asked them to tick the boxes as they read each item.⁴¹ Mr Chapman also signed for an access card and keys.

Mr Hankins was certain that he gave each of the grooms a copy of the 'Operating procedures for horses'.⁴² Mr Chapman, the only Darley groom to give oral evidence, recalled receiving a copy of the document but was unsure whether that occurred before or after the equine influenza outbreak.⁴³

8.2.4 Consignment 4

Consignment 4, consisting of five stallions from the United States, arrived on 7 August, accompanied by two Darley grooms, Mr Derek Fowler and Mr Jim Zajic. The consignment arrived in the late afternoon. Both Mr Fowler and Mr Zajic recalled Mr Hankins talking to them about rules and procedures and providing to them a number of documents. They both signed groom authorisations on that day in the presence of Mr Hankins. Mr Zajic recalled being given a copy of the 'AQIS expectations' document and discussing it in some detail with Mr Hankins.⁴⁴

8.2.5 Consignment 5

Consignment 5, consisting of 12 horses from Ireland, also arrived on 7 August. Four Coolmore grooms—Messrs Thomas Heaney, Benjamin Faulkner, Gabriel

⁴⁰ T1271.

⁴¹ T1273.

⁴² T1956, T2203.

⁴³ T1273.

⁴⁴ WIT.DLYA.013.0001 at para. 27. The 'AQIS expectations of horse grooms at Eastern Creek Quarantine Station' are at AQIS.1000.052.0001.

Walsh and Jim Carey—were with the Coolmore horses in the consignment. The evidence each gave about his arrival was vague. Each agreed that he had been given some instructions by Mr Hankins, or at least some documents, outlining the rules and procedures at the Quarantine Station. None mentioned being given a copy of the ‘Operating procedures for horses’ by Mr Hankins.⁴⁵ Each signed a groom authorisation form in Mr Hankins’ presence.

The head Coolmore groom, Mr Gerard St John, also arrived on 7 August but was staying off site. Ms Christesen approached him that evening, giving him keys and asking him to sign the key register. He recalled that she also asked him to sign a document that set out rules and procedures. That document was not located and could not be identified. Ms Christesen gave Mr St John a copy of the ‘AQIS expectations’ document. Mr St John was definite that it was Ms Christesen, and not Mr Hankins, who did this.⁴⁶

8.2.6 Consignment 6

Consignment 6, consisting of four horses from Japan, arrived in the early evening of 8 August. Ms Christesen was the authorising quarantine officer. Mr Bradley Bowd, who accompanied the Arrowfield stallion Snitzel, was the only new groom to arrive; the other three stallions were accompanied from the airport by people who had arrived with earlier consignments.

After the horses had been unloaded Ms Christesen met Mr Bowd in the common room in the grooms’ quarters.⁴⁷ Mr Bowd vaguely recalled Ms Christesen explaining the content of a number of documents relating to rules and procedures. He had a vague recollection also of being shown the ‘Operating procedures for horses’ but was unsure whether he had been given a copy to keep.⁴⁸ Ms Christesen had no specific recollection of giving Mr Bowd a copy of the document.⁴⁹ Mr Bowd was able to identify the ‘AQIS expectations’ document as something Ms Christesen had given to him. He read ‘most’ of the document.⁵⁰ Ms Christesen also asked Mr Bowd to read and sign a groom authorisation form.⁵¹ The key register, which bears Mr Bowd’s signature, confirms that he received a room key, gate key, access card and thermometer on 8 August.⁵²

⁴⁵ T839, T842–T843 (Carey); T918–T919 (Walsh).

⁴⁶ T3843.

⁴⁷ T1281.

⁴⁸ AQIS.0002.014.0050.

⁴⁹ T1431.

⁵⁰ T1282.

⁵¹ AQIS.1000.003.0029.

⁵² AQIS.1000.035.0001 at 0005.

8.2.7 Other groom inductions

Ms Cushing completed a groom authorisation form at the request of Ms Christesen on 11 August, soon after her arrival. Ms Christesen did not explain its contents to Ms Cushing. Nonetheless, Ms Cushing was familiar with the authorisation because she had signed documents like it many times before.⁵³ Ms Cushing said Ms Christesen did not give her any other documents dealing with rules and procedures at the Quarantine Station.

8.3 The stall positions of the horses and the grooms responsible for their care

The equine enclosure at Eastern Creek has six rows of stalls and turnout yards (rows A to F).⁵⁴ Each row contains 15 stalls and a feed storage area oriented more or less east to west.⁵⁵ During the August intake no horses were stabled in row D. One of the stables in this row was used to store horse equipment. The horses were allocated to stalls in the other rows in accordance with a stall plan prepared by Ms Cushing.⁵⁶

8.3.1 Rows A and B: Darley

The 22 Darley stallions were stabled in rows A and B. Mr Zajic was the head Darley groom from 7 August.

The six stallions from Ireland were in row A. Mr Keegan was in charge of them, assisted by Mr Deering and Mr Delaney.⁵⁷ Seven of the 10 stallions from the United Kingdom were in row A and the remaining three were in row B. Mr Halford supervised the day-to-day care of those stallions. Mr Deschamps and Mr Jackson assisted him with the UK stallions in row A; Mr Goodworth assisted him with the UK stallions in row B. Mr Goodworth also cared for Grandera.

The five American stallions were in row B. Mr Fowler had primary responsibility for them, under the supervision of Mr Zajic.

⁵³ T1497. See, for example, groom authorisation signed on 21 October 2006 (IRT.0004.001.0006).

⁵⁴ For photographs of the equine enclosure see AQIS.1000.061.0012, CI.0001.014.0070, CI.0001.014.0073, CI.0001.014.0118, CI.0001.014.0177, CI.0001.014.0193.

⁵⁵ An aerial photograph of Eastern Creek are at CI.0001.001.0002.

⁵⁶ AQIS.2001.007.0011.

⁵⁷ See WIT.DLYA.012.0001; WIT.DLYA.014.0001; WIT.DLYA.011.0001. Mr Chapman also accompanied the Irish stallions from Kildangan Stud to Eastern Creek but was only on site for one night, 7 August 2007 (see WIT.DLYA.003.0001).

8.3.2 Row C: Arrowfield and International Racehorse Transport

Snitzel, the Arrowfield stallion from Japan, was stabled in row C and was cared for by Mr Bowd. There were seven stallions from the United Kingdom in that row. They had been imported by International Racehorse Transport for a variety of owners and were initially under the direct care of Mr Hirose and, from 11 August, Ms Cushing.

8.3.3 Row E: Coolmore

The 12 Coolmore stallions from Ireland and Japan were in row E. The two Japanese stallions Stravinsky and Rock of Gibraltar were stabled at opposite ends of the row of 10 Irish stallions. Mr St John was the head groom; the grooms assisting him were Messrs Carey, Faulkner, Heaney and Walsh.

8.3.4 Row F: International Racehorse Transport and Crispin Bennett International Horse Transport

Ten horses were stabled in row F—three from the United States, imported by Crispin Bennett International Horse Transport, and seven from the United Kingdom imported by International Racehorse Transport.⁵⁸ Ms Maguire was the groom contracted by both importers to be responsible for the day-to-day care of these horses.

8.3.5 The role of head or senior groom

The groom authorisation form set out additional responsibilities for senior grooms. Mr Hankins understood it to mean the head groom for International Racehorse Transport (that is, Ms Cushing from 11 August 2007 and Mr Hirose before that).⁵⁹ Ms Cushing said she had never been told it was part of her responsibility to explain AQIS requirements to other grooms or monitor their compliance with those requirements.⁶⁰ Similarly, she did not realise it was her responsibility as senior groom to ensure that veterinarians or farriers engaged by the studs followed decontamination procedures such as changing into overalls and gumboots and showering out.⁶¹

Although she was head groom for International Racehorse Transport, Ms Cushing was not directly responsible for the day-to-day care of the stallions

⁵⁸ Fox & Firkin, Sheer Kingston and Teddy Bear (Crispin Bennett) and Jorrit fan Stal Redia, Doringcourt, Ainthorpe Graceful Sonnet, Woodsbee, Falstermeyer, Moreton Hall Go For Broke and Wells High Class (International Racehorse Transport).

⁵⁹ T2228.

⁶⁰ T1777.

⁶¹ T1507.

from Coolmore, Darley and Arrowfield. Nor did she consider herself as having any supervisory role in relation to the grooms employed by those studs, in contrast to what was suggested in the groom authorisation.⁶² As far as Ms Cushing was concerned, she was directly responsible only for the care of the horses imported by International Racehorse Transport in row C (excluding Snitzel). She also regarded herself as at least partially responsible, in a supervisory sense, for Ms Maguire and the horses in row F (excluding the three horses imported by Crispin Bennett International Horse Transport).⁶³ Ms Cushing was aware, however, that AQIS was looking to International Racehorse Transport as the primary contact point for all the horses IRT had imported, including those from the studs.⁶⁴

Ms Cushing said she always informed staff at Eastern Creek of any visits by veterinarians and farriers⁶⁵ that she had arranged, as well as deliveries of supplies and feed.

8.3.6 Contact with horses in post-arrival quarantine

The evidence of the grooms was that they have direct contact only with horses in their care.⁶⁶ Ms Cushing, a very experienced head groom, said that, although it was not uncommon for grooms to walk up and down other rows and observe horses from other studs or importers, the etiquette was that they handled only horses under their direct care.⁶⁷

The evidence of the Coolmore grooms and Dr Denis Crowley was that they did not come into contact with horses other than those in row E.⁶⁸ Mr Bowd came and visited row E and was present for some time while Mr Bradley Hinze, the Coolmore farrier, was working on the Coolmore horses on 14 August. Mr Bowd said he shook hands with Mr Hinze but did not touch any of the Coolmore horses.

Mr Bowd said he did not see any other grooms handling Snitzel during PAQ. The horse spent most of the day in the turnout yard and was separated from the other horses. Mr Bowd agreed that it was possible the horse could have been handled by another groom without his knowledge.⁶⁹ Mr Bowd said grooms

⁶² T1503.

⁶³ T1504.

⁶⁴ T1769.

⁶⁵ T1504 (Cushing).

⁶⁶ See, for example, WIT.COOL.010.0001 at para. 16 and WIT.COOL.011.0001 at para. 22.

⁶⁷ T1524–T1525.

⁶⁸ T3857 (St John), T3878 (Crowley), T3824 (Faulkner) and WIT.COOL.010.0001 at para. 16.

⁶⁹ WIT.ARRO.003.0001 at para. 17, T1295–T1296.

might go and look at horses from other studs but they would never actually touch them.⁷⁰

Ms Maguire said grooms did not wander around during the quarantine of stallions and ‘stuck’ to their own rows.⁷¹

8.4 Access to the equine enclosure and the staff amenities block

8.4.1 Access to the equine enclosure

Grooms were issued a room key, an access card and a pedestrian gate key.⁷² This allowed free access to the equine enclosure from the main gate on Wallgrove Road, so that the grooms could come and go throughout the day. Other than requiring grooms to sign in and out in the grooms book, there was no mechanism for AQIS to monitor the movement of grooms into and out of Eastern Creek. Some of the veterinarians (Drs Andrew Argyle, John Bruyn and Crowley), the caterers and Ms Dressing also had keys and an access card.⁷³

The head groom (Mr Hirose and then Ms Cushing) was issued a ‘master key’, which allowed access to the veterinarians’ room in the grooms’ quarters and to the horse surgery complex.⁷⁴

8.4.2 Access to the staff amenities block

The staff amenities block contained showering and changing facilities. Mr Hankins said that in July 2007 he had decided to stop issuing to the head groom a key to the staff amenities block because it posed a risk for the dog and cat area.⁷⁵ Mr Hankins said this did not prevent veterinarians and farriers from gaining access to the shower and changing facilities as they had in the past because they could arrange for the block to be unlocked by an AQIS officer such as Ms Christesen. Mr Hankins explained that the reason for withholding the key from the head groom was ‘not to prevent veterinarians and farriers from being able to access a shower’ but rather to ‘prevent access to an area of the station that the veterinarians or grooms had no business in getting into’.⁷⁶

⁷⁰ T1292.

⁷¹ T1333.

⁷² An example of the key register is at AQIS.1000.035.0001.

⁷³ AQIS.1000.034.0001; AQIS.1000.006.0005.

⁷⁴ T2227 (Hankins).

⁷⁵ T1944–T1943.

⁷⁶ T2245 (Hankins).

Ms Maguire told the Inquiry that during previous intakes she had been issued a key to the staff amenities block for the purpose of allowing veterinarians and farriers access to change their clothes and shower. She said the reason this practice ceased was that AQIS staff did not want to share the amenities with the large number of on-site grooms during the shuttle stallion intakes.⁷⁷

8.5 The grooms' activities

8.5.1 The International Racehorse Transport and Crispin Bennett International Horse Transport grooms

Mr Tetsuhito Hirose

Mr Hirose had been head groom for International Racehorse Transport before the arrival of Ms Cushing on 11 August. He had looked after horses in Eastern Creek on 15 or so occasions. He was aware of the requirement for grooms to shower and change their clothes before leaving the station, and he recalled leaving the station about five times during his stay in August 2007. He said he showered and changed his clothes on each occasion. He also said that when he arrived on 4 August he was aware there was a book to be signed on the way in and out of the grooms' quarters (the grooms book). He acknowledged that he did not sign it each time he left and returned to the Quarantine Station.

Mr Hirose gave evidence that he did not have contact with horses outside the Quarantine Station during his stay between 4 and 11 August. In my view, it is unlikely that he did.

Ms Pauline Cushing

Ms Cushing arrived in Melbourne with a consignment of horses from the United States on 11 August. She travelled to Sydney on the same day. On arrival at the Quarantine Station she showered, changed into her work clothes and went to the stables. She took over from Mr Hirose as the head groom responsible for the International Racehorse Transport horses as well as day-to-day care of that importer's horses in row C.

Having worked as a groom at the station over a number of years, Ms Cushing said it was common for grooms to go out during the day to the local shops or to an hotel for lunch without showering and changing their clothes.⁷⁸ She also gave evidence that some of the grooms did change their clothes when they

⁷⁷ T1322 (Maguire).

⁷⁸ T1500.

went out for lunch.⁷⁹ Although she was aware of AQIS's requirement for showering out, she accepted that she did not always do so when leaving the Quarantine Station for short periods during the day. She insisted, though that she always changed her clothes.

During the August intake Ms Cushing observed that some of the Coolmore and Darley grooms showered and changed before going out and others did not. She did not, however, identify any particular occasion or occasions when this occurred. She said she did not regard herself as responsible, in her capacity as head groom for International Racehorse Transport, for ensuring that the grooms employed by the studs complied with showering requirements.⁸⁰

Ms Cushing knew of the grooms book but said the requirement to sign in and out was not routinely imposed by or impressed on grooms. During August she signed the grooms book only twice in the period before the outbreak.

Ms Kim Maguire

Ms Maguire was responsible for day-to-day care of all the horses in row F—these being horses imported by Crispin Bennett International Horse Transport and International Racehorse Transport—and reported to Ms Cushing in relation to the horses imported by International Racehorse Transport. Despite her earlier periods in residence at the Quarantine Station, she was not aware of the requirement to shower and change before leaving.

According to Ms Maguire, it was common for grooms to go out for short periods during the day to buy things from the local shops or the service station, or to go out for lunch or a drink. She said that on these occasions grooms would leave without showering or changing their shoes or clothing. When asked, she was unable to identify any of those associated with the August intake who did not regularly shower out. Her impression was that there was no 'hard and fast rule' regarding showering out.

It is not, then, surprising that Ms Maguire did not herself shower and change before leaving the station. She would only change her shirt if it was particularly dirty, and sometimes she would change her footwear. She knew about the grooms book and said some of the grooms did not sign it before leaving the station.⁸¹ She was one of the few grooms who regularly signed in and out in it.

⁷⁹ T1500.

⁸⁰ T1501.

⁸¹ WIT.CBHT.003.0001 at para. 33.

8.5.2 The Arrowfield groom

Mr Bowd was the groom responsible for the Arrowfield stallion Snitzel, in row C. He told the Inquiry he left the Quarantine Station on a number of occasions to visit the local shops, to buy carrots for the horse, or for outings in the evening with the other grooms. He sometimes went out with the Coolmore or Darley grooms because they had access to vehicles owned by their employers. Mr Bowd recalled going out to the hotel for lunch a couple times with the other grooms and being absent for up to an hour when he did.

Mr Bowd said he always showered and changed before leaving the station, even if he was only going out for a short period. He did not always shower immediately before leaving, however. Sometimes he might shower and then wait around for the other grooms to join him before he left the station.

Mr Bowd was 'unsure' about the existence and relevance of the grooms book until some time after 8 August. He made three entries in the grooms book between 13 and 25 August.

8.5.3 The Coolmore grooms

Four Coolmore grooms were in residence at Eastern Creek during the first two weeks of quarantine—Messrs Faulkner, Heaney, Carey and Walsh. Although, Mr Faulkner and Mr Heaney had been at the station before, the most senior of the grooms was Mr Carey. Mr Walsh had not previously stayed at the station.

These grooms had some recollection of being told about rules and procedures when they first arrived on 7 August but could not give specific details. Additionally, the evidence they gave about their awareness of the requirements to sign the grooms book and to shower and change each time that they left the Quarantine Station was vague. They signed groom authorisations on the day of their arrival, in which they agreed to adhere to the requirement to shower out and change. Mr Heaney was the only one who clearly recalled that Mr Hankins had informed him of the requirement to sign in and out. Mr Walsh said he signed in and out 'somewhere' in the grooms' quarters on at least a few occasions. But the grooms book contained no entry made by any Coolmore groom between 4 and 25 August.

These grooms gave evidence that they left the station from time to time to visit the local shops or to go to the hotel in the evening. They also went out on their days off to shopping centres in Western Sydney and into the city. Each said he *always* showered and changed before leaving, even if only for a short period. Mr Heaney said he would often leave in the morning to go and buy a paper but would always shower and change first. He would then change into his work clothes after he returned to the station. None of the Coolmore grooms said he

had observed other grooms leaving the station in work clothes or without showering.

With the exception of Mr Carey, the grooms said that on the occasions they left the station they did not go near other horses. Mr Carey agreed he had attended Randwick Racecourse on 11 August with Dr Crowley but said neither of them had had any direct contact with horses there. Mr Carey said he showered and changed into a new suit and shoes before leaving for the races.

The senior groom responsible for the 12 Coolmore stallions was Mr St John. He stayed off site at a nearby hotel and went to Eastern Creek each day to supervise the four on-site grooms. Mr St John said he used to shower and change at his hotel before leaving at about 6.00 am. He would then change into his work clothes and boots. Mr St John recalled Ms Christesen telling him about the requirement to shower out on the first night of his arrival. He said he showered and changed out of his work clothes in the grooms' quarters every time he was about to leave the station. Mr St John was aware that the grooms book was kept 'somewhere' in the grooms' quarters, but he did not use it to sign in and out each time he entered or left the Quarantine Station.

Mr St John said he spoke to each of the Coolmore grooms other than Mr Carey during pre-export quarantine in Ireland and told them about procedures at Eastern Creek, including the requirement to shower out and change clothing and footwear.⁸² Mr Faulkner recalled Mr St John telling him about the need to avoid contact with horses outside quarantine.⁸³

8.5.4 The Darley grooms

Nine Darley grooms were in residence for the first two weeks of post-arrival quarantine; this excludes Mr Wayne Chapman, who stayed overnight on 7 August before returning to the Darley Stud with Mr Sunderland and Mr Stuart McKay. Most, but not all, of the Darley grooms said they were aware of the grooms book and the requirement to sign in and out. Some of them recalled being told when they arrived about the requirement to shower out before leaving the Quarantine Station.

The Darley grooms left the Quarantine Station from time to time during the day when they were not working. A number of them said they would often go out for short periods to the local shops or to visit the internet cafe. On their days off some of them went further afield—for example, to the Parramatta shopping mall or sightseeing around Sydney. Mr Zajic said it was not unusual for the grooms to go out together in the evening for a meal or a drink.

⁸² WIT.COOL.009.0001, T3831–T3832, T3834.

⁸³ WIT.COOL.011.0001.

Their evidence and the entries in the grooms book confirm that the Darley grooms did not strictly comply with the requirement to sign in and out. Nine entries were made by Darley employees in the grooms book between 4 and 25 August.⁸⁴ This is despite evidence suggesting that most, if not all, of them left the station at least once each day.

Compliance with the requirement to shower and change when leaving quarantine was irregular. Four of the grooms (Messrs Halford, Delaney, Deering and Fowler) said that they *always* showered and changed when they left the station. Four others (Messrs Goodworth, Keegan, Zajic and Jackson) said they did not always shower out and change their clothes, especially if they were only leaving the station for short periods during the day. Most of these four said they always showered out and changed if they were going out at the end of the day for a meal or drinks. The evidence of one groom, Mr Deschamps, is not clear on the subject. Most of this evidence was not tested because the grooms live overseas.

Mr Wayne Chapman, who stayed overnight at Eastern Creek on 7 August, told the Inquiry he showered before leaving the Quarantine Station because he was ‘following the other grooms’ lead’.⁸⁵

None of the Darley grooms appear to have had any contact with horses outside quarantine on the occasions they left the Quarantine Station. Generally speaking, each was aware that he should not have contact with other horses while caring for the horses in quarantine.

8.6 The veterinarians’ activities

During post-arrival quarantine the horses in Eastern Creek were attended by a number of veterinarians, including Dr Phillip Widders of AQIS. The private veterinarians were Dr Crowley of Coolmore, Dr Bruyn and Drs Gregory Nash, James Whitfeld and Graham Adams of the Randwick Equine Centre, and Dr Andrew Argyle of the Wollondilly Equine Centre.

8.6.1 Dr Denis Crowley

Dr Crowley was responsible for the routine clinical examination and treatment of the Coolmore horses in the first seven days of the PAQ period. Mr St John kept a diary recording the health status of the Coolmore stallions and details of

⁸⁴ The Darley grooms who made entries in the grooms register were Mr Jackson, Mr Zajic and Mr Halford.

⁸⁵ T1274.

any veterinary treatment they received.⁸⁶ Table 8.1 provides details of Dr Crowley's visits to the Quarantine Station.

Table 8.1 Veterinary attendance: Dr Crowley, 7 to 10 August 2007

Date		Horse or horses	Treatment	
7 August	pm	10 Irish stallions	First dose antibiotic Engemycin	
8 August	am	10 Irish stallions	Blood samples	
	pm	Stravinsky, Rock of Gibraltar 10 Irish stallions	First dose antibiotic Engemycin Second dose antibiotic Engemycin	
9 August	am	Rock of Gibraltar, Stravinsky Danehill Dancer	Blood samples Further blood sample	
		pm	10 Irish stallions Rock of Gibraltar, Stravinsky Oratorio	Third dose antibiotic Engemycin Second dose antibiotic Engemycin Finadyne and poultice for swelling in back legs
	10 August	pm	Stravinsky, Rock of Gibraltar	Third dose antibiotic Engemycin

The only other occasion on which Dr Crowley attended the Quarantine Station was on 13 August, when he dropped off his gate key and access card at the main office. He then drove straight to the airport and left on a commercial flight to Ireland at about 11.30 am.

Each time Dr Crowley attended Eastern Creek between 7 and 13 August he did not sign in or out in the visitors book. He told the Inquiry he did not wear protective clothing such as overalls or boots while treating the Coolmore horses. Nor was he aware that it was an AQIS requirement that veterinarians shower out before leaving the Quarantine Station.

Dr Crowley said he washed his hands before leaving quarantine, but he considered it was not appropriate for him to use the grooms' showering facilities. He also said there was little point in him showering inside the grooms' quarters and then returning to his car on foot through a contaminated area. Instead, he drove directly to his hotel and immediately changed out of his work clothes and showered.

Dr Crowley's evidence was that during the week he was in Australia he did not perform any outside veterinary work or have any contact with horses other than the Coolmore stallions. He attended Randwick Racecourse with Mr Jim Carey on 11 August 2007, but he did not visit the Quarantine Station on that day and did not come into contact with horses while at the races.

⁸⁶ CALO.0001.009.0367.

8.6.2 Veterinarians from the Randwick Equine Centre

Darley Stud had engaged the Randwick Equine Centre to provide veterinary services for its 22 stallions in quarantine. The centre had also been engaged by Arrowfield to provide similar veterinary services to Snitzel whilst he was in quarantine. The services involved examining the horses on arrival and taking blood samples within 24 hours after arrival. A detailed description of the services was set out in the Shuttle Stallion Protocol provided to each of the studs.⁸⁷

In addition, on 17 August Mr St John asked Dr Whitfeld of the Randwick Equine Centre to collect a blood sample from Encosta De Lago. Dr Whitfeld was unable to attend, and Dr Nash came instead. From that time, veterinarians from the Randwick Equine Centre also attended to some of the Coolmore horses.

The Randwick Equine Centre veterinarians who attended the Darley and Arrowfield stallions were Drs Bruyn, Whitfeld and Nash. Dr Adams of that practice attended the Coolmore horses and the Darley stallion Elusive Quality between 18 and 20 August. Table 8.2 provides details of the attendances of Drs Bruyn, Whitfeld and Nash between 7 and 14 August.

Table 8.2 Veterinary attendance: Randwick Equine Centre, 7 to 14 August 2007

Date		Veterinarian	Horse or horses	Treatment
7 August	am	Bruyn, Whitfeld	16 Darley stallions	Initial clinical examination
	pm	Bruyn	5 Darley stallions (US)	Initial clinical examination
8 August	am	Bruyn, Nash, Whitfeld	16 Darley stallions	Second clinical examination, blood samples (except Cape Cross)
	am	Bruyn, Nash, Whitfeld	5 Darley (US) stallions	Second clinical examination, blood samples
	pm	Bruyn	Grandera, Snitzel	Initial clinical examination
9 August	am	Bruyn	Grandera, Snitzel	Second clinical examination, blood samples
14 August	am	Bruyn, Whitfeld	16 Darley stallions,	Blood samples (except Cape Cross)
			5 Darley stallions	Blood samples
			Grandera, Snitzel	Blood samples

Dr Gregory Nash

Dr Nash attended Eastern Creek several times in August 2007. On each occasion he changed into overalls and gumboots before going to the stables. He

⁸⁷ REX.0001.003.0173.

would sign in and out in the visitors book when the main office was open. Dr Nash wore a cap, which he also wore while treating horses outside the Quarantine Station.

Under questioning, Dr Nash admitted that a veterinarian treating a horse infected with equine influenza could become contaminated by expired viral particles—for example, on clothing, face, hands, hair or equipment. He accepted that he believed he was required to shower out but that he did not comply with this requirement because, put simply, it was not enforced.⁸⁸

Dr Nash was questioned about his contact with horses following each of his attendances at the Quarantine Station in August 2007. He told the Inquiry that none of the horses he had treated outside quarantine during this period had shown early signs of equine influenza.

Dr Widders and Dr Nash both recalled having a telephone conversation in which Dr Widders advised Dr Nash that veterinarians should be showering out after each attendance at the Quarantine Station. The date on which this conversation took place is uncertain. Dr Widders said he called Dr Nash on 20 August.⁸⁹ Dr Nash's recollection was that the conversation occurred on 22 August, and he showered out from that time onward.⁹⁰ In either case, it should scarcely have been necessary for Dr Widders to make that call to a highly qualified veterinarian treating horses worth millions of dollars.

Dr John Bruyn

Dr Bruyn's evidence was that on each occasion he treated horses at Eastern Creek during the August intake he changed into overalls and gumboots. He also said that after treating the horses he would change out of his overalls and gumboots in the grooms' quarters and thoroughly wash his face and hands in the shower room. It was not his practice to shower out before leaving the Quarantine Station. He did not always sign the visitors book.

Dr Bruyn agreed that there was a real risk that a veterinarian could transmit equine influenza outside the quarantine station and that in hindsight he should have showered out on each occasion he treated horses.⁹¹ He said, however, it would have been 'inconvenient' for him to shower out because the only shower available at the time was in the grooms' quarters. He described that shower as

⁸⁸ T1628.

⁸⁹ T985–T986, T1095, T1107–T1108, T1255.

⁹⁰ T1596.

⁹¹ T1635, T1642.

being in frequent demand because of the number of on-site male grooms and the limited supply of hot water.⁹²

On the days that Dr Bruyn treated the horses in quarantine he also did veterinary work at Warwick Farm and various other locations in Sydney. He told the Inquiry he had made inquiries about these attendances and was not aware of any early cases of equine influenza among horses he had treated outside quarantine during this period.⁹³

Dr James Whitfeld

Dr Whitfeld was ‘well aware’ of the need to wear protective clothing and undergo certain decontamination procedures after treating horses at the Quarantine Station.⁹⁴ On the three occasions he had contact with stallions in August 2007, Dr Whitfeld wore overalls over his ordinary work clothes and changed into gumboots. He did not fasten all the buttons on his overalls and agreed that parts of his clothing—for example, his shirt collar—were exposed while he was working.⁹⁵ Dr Whitfeld said he had thoroughly washed exposed skin, including his hands, forearms and face, on each occasion. He did not wash his hair and agreed that this was a possible way the virus could be carried outside the Quarantine Station.⁹⁶

Dr Whitfeld said that, although he was not aware that showering out was an AQIS requirement, he had done so on a number of occasions after treating horses. He showered out only if he believed there was a risk that he had become contaminated by a sick horse in quarantine. Because he thought all the Darley stallions he examined in August 2007 were healthy, he did not think it necessary to shower out.

After each of his visits to Eastern Creek Dr Whitfeld went to Warwick Farm and other locations in western Sydney to treat horses. Dr Whitfeld gave evidence that equine influenza was not detected at any of these locations until early September or later.⁹⁷

Dr Graham Adams

Dr Adams attended the Quarantine Station on five occasions between 18 and 20 August 2007, to treat Encosta De Lago and Elusive Quality. (I describe those attendances in Section 8.11.) During his visits Dr Adams did not use the overalls and gumboots in the veterinarians’ room. Instead, he wore a pair of

⁹² T1633.

⁹³ T1642, T1647.

⁹⁴ T1665.

⁹⁵ T1670.

⁹⁶ T1673.

⁹⁷ WIT.REX.002.0001 at paras 16, 21, 24.

short-sleeved cotton overalls over the top of his ordinary work clothes. Because the overalls were short-sleeved, his forearms and part of his clothing were exposed while he was working.

Dr Adams told the Inquiry that after leaving quarantine he would change into a fresh pair of overalls, which he kept in his car, before treating other horses. The only exception was when he attended in the evening of 18 August: on this occasion he did not wear overalls and examined Encosta De Lago whilst wearing the suit he had been wearing that day at the Rosehill races, where he had examined a number of horses.

Dr Adams did not shower out after treating horses at Eastern Creek, but he always washed his hands. Following the conversation between Dr Widders and Dr Nash about whether veterinarians had been showering out, however, Dr Adams showered in the grooms' quarters before leaving the Quarantine Station.

On 18 and 19 August Dr Adams came into contact with a number of horses outside the Quarantine Station in the course of his duties at Warwick Farm and Rosehill stables and in his capacity as an official veterinarian at the Rosehill races. No horses at Warwick Farm or Rosehill exhibited signs of equine influenza until 21 September 2007 and 5 October 2007 respectively.⁹⁸

8.6.3 Dr Andrew Argyle of the Wollondilly Equine Centre

Dr Argyle of the Wollondilly Equine Centre visited the Quarantine Station in the period from 4 August onwards at the request of International Racehorse Transport. He attended a number of horses, including six that were to be exported from Australia to New Zealand when they had finished quarantine—Trade Fair, Danbird, Denon, Idesatchel, Desert King and Stravinsky. Table 8.3 shows details of the horses Dr Argyle treated.

Dr Argyle made up to 20 visits to Eastern Creek in the period after 4 August. He said it was his usual practice to sign in and out in the grooms' quarters if the main office was closed. He accepted, however, that he had only signed in on five occasions (three times in the grooms book and twice in the visitors book) during August 2007 and retreated from his initial assertion that it was his 'usual practice' to do so.⁹⁹

⁹⁸ WIT.REX.005.0001 at paras 19, 20.

⁹⁹ T1749-T1750.

Table 8.3 Veterinary attendance: Dr Argyle, 4 to 14 August 2007

Date		Horse or horses	Treatment
4 August	pm	Danbird, Trade Fair, Desert King, Idesatchel, Denon Desert King	Initial clinical examinations, blood samples Penicillin, gentamicin, Finadyne, intravenous fluids for travel sickness
5 August	am	Danbird, Trade Fair, Desert King, Idesatchel, Denon Desert King	Second clinical examination, blood samples Penicillin, for travel sickness
		Ainthorpe Graceful Sonnet	Penicillin for infected lower lip
	pm	Desert King	Penicillin, gentamicin
		Ainthorpe Graceful Sonnet	Penicillin
6 August	am	Idesatchel	Blood sample
		Desert King, Ainthorpe Graceful Sonnet	Penicillin
	pm	Desert King	Penicillin, gentamicin
		Ainthorpe Graceful Sonnet	Penicillin
7 August	am	Desert King, Ainthorpe Graceful Sonnet	Penicillin
	pm	Desert King	Penicillin, gentamicin
		Ainthorpe Graceful Sonnet	Re-examination, Sulprim powder
		Golden Snake, Rakti	Initial clinical examination, gentamicin
			Finadyne, penicillin for travel sickness
8 August	am	Golden Snake, Rakti	Second clinical examination, blood samples, Penicillin for travel sickness
		Desert King	Penicillin, blood sample
	pm	Desert King	Penicillin, gentamicin
		Golden Snake, Rakti	Penicillin, gentamicin, Finadyne for travel sickness
9 August	am	Stravinsky, Doringcourt, Woodsbee, Storming Home, Iffraaj Ekraar	Clinical examination, blood samples
		Golden Snake, Rakti	Penicillin
	pm	Golden Snake, Rakti	Penicillin, gentamicin, Finadyne
10 August	am	Golden Snake, Rakti	Penicillin
		Falstermeyer	Examination, penicillin, bute for leg abrasion
	pm	Golden Snake, Rakti	Penicillin, gentamicin
		Falstermeyer	Penicillin
11 August	am	Golden Snake, Rakti	Penicillin, blood sample
		Falstermeyer	Penicillin
	pm	Golden Snake, Rakti	Penicillin, gentamicin
		Falstermeyer	Penicillin
14 August	am	Trade Fair, Danbird, Denon, Idesatchel, Desert King	Blood samples

Dr Argyle told the Inquiry that each time he attended Eastern Creek in August 2007 he changed into overalls and gumboots in the veterinarians' room.¹⁰⁰ He also said that he followed his 'standard decontamination procedure' before leaving the Quarantine Station. This involved changing out of his overalls and gumboots and washing his hands.¹⁰¹

During this period Dr Argyle visited various properties throughout Sydney. On the basis of his evidence and the practice records produced by Wollondilly Equine, it is not possible to determine with complete accuracy those that he visited and the horses he treated outside the Quarantine Station. His recollection of his movements on particular dates was at times vague. He did, however, give evidence about the inquiries he had made after the outbreak of equine influenza. The responses, he said, to those inquiries were that none of the horses he had treated outside of the Quarantine Station had shown signs of equine influenza before early September 2007.

8.6.4 AQIS veterinary inspections

Dr Widders attended the Quarantine Station to examine horses on 8 and 13 August. On 8 August he attended to conduct veterinary inspections of the horses that had arrived during the preceding four days. He said he was unable to take blood samples from Cape Cross and Ad Valorem because they were unmanageable¹⁰² and that when he encountered a fractious horse he would not usually return to collect samples at another time, when they were more manageable.¹⁰³ When he attended the Quarantine Station on 13 August he inspected the four Japanese stallions that had arrived on 8 August.¹⁰⁴ The purpose of these inspections was to confirm the identity of each horse and to collect blood samples.¹⁰⁵ The AQIS Work Instruction for Clearance of Live Horses required that blood samples be collected within 48 hours of a horse's arrival.¹⁰⁶ The delay in taking the samples from the Japanese horses at Eastern Creek (and those at Spotswood) is one factor that prevent me from making more precise findings in relation to the horses that were infectious when they arrived in post-arrival quarantine.

¹⁰⁰ This is consistent with the evidence of Ms Maguire, who told the Inquiry Dr Argyle wore overalls and gumboots when attending horses at Eastern Creek on each occasion that she saw him during the August intake.

¹⁰¹ T1750–T1751.

¹⁰² T1289.

¹⁰³ T1239.

¹⁰⁴ CI.0001.037.0020.

¹⁰⁵ T991.

¹⁰⁶ AQIS.0001.001.0011 at 0020.

I make this point. If a horse is so fractious or dangerous that it cannot be examined, or samples taken from it, or treated, it simply should not be allowed to come into Australia. The reason for this is obvious. The relevant documents and conditions for entry should ensure accordingly.

The import conditions require that within 48 hours of arrival each horse be thoroughly examined for ticks under the direct supervision of a quarantine officer. It is not clear whether this was done as part of Dr Widders' veterinary inspections. The work instructions suggest that it should have.¹⁰⁷ In any case, his inspections of the horses in consignments 1, 2 and 6 were not performed within 48 hours of arrival.

The blood samples were sent to the Elizabeth Macarthur Agricultural Institute with a request that sera be extracted and sent to the Australian Animal Health Laboratory in Geelong for storage in the national serum bank.¹⁰⁸ The samples were not collected for the purpose of immediate testing: they were collected as a reference of the health status of the horses on arrival, for use in the event of the emergence of a disease of concern.¹⁰⁹

Each time Dr Widders attended the Quarantine Station he recorded his attendance in the staff attendance book.¹¹⁰ He told the Inquiry he wore AQIS overalls during both visits but did not wear gumboots. He changed out of the overalls before leaving the Quarantine Station, but he did not shower out. He agreed that if one of the horses he had inspected and sampled had been shedding equine influenza it was possible that he had spread the virus to other horses in the equine enclosure. Dr Widders told the Inquiry that, other than in the course of his operational duties, he did not have any contact with horses outside the Quarantine Station in August 2007.¹¹¹

8.7 The farriers' activities

Two farriers attended the Quarantine Station in the period leading up to 20 August 2007—Mr Scott Barlow on 13 August and Mr Brad Hinze on 14 August. Mr Barlow did not clean or disinfect his farrier's tools and apron before leaving the Quarantine Station. Mr Hinze left the Quarantine Station

¹⁰⁷ AQIS.0001.001.0011 at 0020.

¹⁰⁸ T1242.

¹⁰⁹ T1049.

¹¹⁰ On 8 August 2007 Dr Widders signed in at 12.30 pm and signed out at 4.30 pm (CI.0001.037.0025). On 13 August he signed in at 1.00 pm and signed out at 4.00 pm (CI.0001.037.0020).

¹¹¹ T1242.

without showering or changing his clothes and without cleaning and disinfecting his farrier's tools and apron.

8.7.1 Mr Scott Barlow, 13 August 2007

Mr Barlow, a self-employed person, attended Eastern Creek on 13 August at the request of Ms Cushing and Mr Zajic from Darley. It was Ms Cushing's practice to advise AQIS management of any pre-arranged visits by farriers. Mr Barlow had done work in quarantine before; accordingly he was known to AQIS staff. He said that the first time he attended Eastern Creek he was told by staff he must sign in, change into overalls and boots, and shower out before leaving the station.¹¹²

On this occasion Mr Barlow announced his arrival over the intercom at the main gate, which was opened remotely by a member of staff at the main office. He drove his vehicle to the administration block and signed the visitors book as entering at 1.20 pm, although his recollection was that he had arrived at around midday.¹¹³ He asked an AQIS officer known to him as 'Pat' to escort him through the locked gates and into the equine enclosure. (Mr Barlow was probably referring to Mr Patrick Hennessy, who was the level 3 AQIS officer responsible for overseeing maintenance at the station.) Mr Barlow then drove his vehicle into the equine enclosure and parked near the staff amenities block, where he met Ms Cushing. Because Ms Cushing had not been issued a key to the staff amenities block for the August intake, another AQIS officer unlocked the block for Mr Barlow. None of the AQIS officers who gave evidence had any recollection of doing this for a farrier. Ms Cushing's recollection, which I accept as accurate, was that Ms Christesen unlocked the staff amenities block for Mr Barlow when he attended on 13 August.¹¹⁴

Ms Cushing was aware that farriers were required to wear overalls and gumboots while working and told the Inquiry she had taken responsibility for ensuring that Mr Barlow complied with this requirement. Overalls and gumboots for farriers were kept in cupboards in a room adjacent to the shower in the amenities block. Mr Barlow said he could not locate a clean pair of overalls, so he put on a dirty pair he had worn on an earlier visit. He put on AQIS gumboots and wore his own leather work apron over the overalls. Dr Widders told the Inquiry he had observed that Mr Barlow generally

¹¹² T1791–T1793.

¹¹³ See Eastern Creek visitors book (AQIS.1000.036.0001 at 0010) and WIT.BARL.001.0001 at para. 11.

¹¹⁴ Ms Christesen did not recall Mr Barlow's attendance at Eastern Creek on 13 August 2007 and, more specifically, unlocking the staff amenities block so that he could change his clothes and have a shower (T1441–T1442).

complied with the requirements for farriers.¹¹⁵ The evidence supports a finding that Mr Barlow did comply with the requirement to wear overalls and gumboots on the occasions he attended the Quarantine Station, and specifically on 13 August.

Ms Cushing told Mr Barlow which horses needed his attention. He started in row B, giving Grandera and Elusive Quality light trims. He was assisted by Darley grooms. He then went to row C, to the stable of Golden Snake. Ms Cushing led the horse into the yard, where Mr Barlow removed the horse's shoes and gave its hoofs a trim before refitting the shoes. Mr Barlow next went to the end of row F, to trim and manicure Moreton Hall Go For Broke and Woodsbee with the assistance of Ms Maguire.

Mr Barlow did not clean or disinfect his tools when moving among the five horses that he worked on. When he had finished in row F, Ms Cushing arranged for the staff amenities block to be unlocked. Mr Barlow placed his tools in the back of his vehicle without cleaning or disinfecting them and drove to the amenities block, where he showered and changed.¹¹⁶ He left the gumboots and overalls in the change room.

Mr Barlow left the Quarantine Station at about 3.30 pm, without signing out, and went directly to a client's property in Londonderry, where he shod two horses, using the equipment he had used earlier in the day. He told the Inquiry he did not perform any other farrier work that day. It is likely, however, that he stopped in Windsor to feed some Clydesdales on his way home from Londonderry and that he fed another horse, called Charlie, after returning to his home in Yarramundi. Mr Barlow had no other contact with horses that day and showered and changed when he reached his home. He gave evidence, which I accept, that the Clydesdales did not contract equine influenza until about 12 or 13 September 2007 and that Charlie remained free of the virus until October 2007.

In the next two weeks Mr Barlow attended various horses in north-western Sydney and the lower Blue Mountains. He also worked with the Clydesdales from Windsor, as driver of a horse-drawn carriage. He was carefully examined about these horse contacts. He gave a full account of his movements, an account supported by his diary and business records. He told the Inquiry his clients owned polo horses, draught horses, American horses, and ponies and that he had not carried out any farrier work on eventing horses in the last 12 months.

¹¹⁵ WIT.AQIS.006.0001 at para. 16; T1113.

¹¹⁶ T1539.

Mr Barlow also gave evidence that, as soon as he became aware of the outbreak of equine influenza, he contacted as many of his clients as possible and was told that none of their horses had contracted the virus within a week or so of 17 August 2007.

This evidence does not enable me to find any link between Mr Barlow's attendance at the Quarantine Station on 13 August and the escape of the virus into the general horse population by 20 August.

8.7.2 Mr Bradley Hinze, 14 August 2007

Mr Hinze, a farrier employed by Coolmore Australia, visited the Quarantine Station on 14 August to trim the hoofs of the Coolmore stallions in row E. He had arranged his visit with the head groom, Mr St John, and had discussed what work was to be done with Mr Adrian O'Brien, the assistant stud manager at Coolmore Stud.

Mr Hinze left his home in Muswellbrook at about 4.00 am on 14 August and drove to Eastern Creek. He arrived there at about 8.20 am and stopped his vehicle at the main gate. A person at the gate opened it for him when he explained that he was the Coolmore farrier. That person told him to go to the office and sign in. Mr Hinze went inside and completed a 'sign-in' form. No document has been located that confirms that this occurred. There is no entry at all for Mr Hinze on 14 August in the visitors book, which was kept in the main office.¹¹⁷ Mr Hinze was joined by a Coolmore groom, Mr Jim Carey, and the two men drove to the equine enclosure in Mr Hinze's car, which he parked at the feed area at the end of row E.

Mr Hinze told the Inquiry that, having never attended the Quarantine Station before, he had expected to receive directions about any specific biosecurity measures that applied—such as wearing protective clothing or showering.¹¹⁸ Because neither the Coolmore grooms nor any of the station staff gave him any instructions, he said he simply began his work on the stallions, without changing his clothes or disinfecting his tools. He did not wear any protective overalls or gumboots while he did.¹¹⁹ Mr St John acknowledged that he was responsible for supervising Coolmore farriers while they were working at Eastern Creek but understood from previous years that AQIS staff would supervise signing in and out, changing and showering out.¹²⁰

¹¹⁷ AQIS.1000.036.0001 at 0010–0011.

¹¹⁸ T1835 (Hinze).

¹¹⁹ T1843 (Hinze).

¹²⁰ WIT.COOL.009.0001 at para. 41.

The order in which Mr Hinze dealt with the horses is unclear. He recalled that he trimmed and shod Statue of Liberty and Ad Valorem last and that he had worked on the two Japanese horses Stravinsky and Rock of Gibraltar in their yards. He worked continuously in row E for over four hours and had direct contact with each of the horses there.

Mr Hinze said that after he had finished he washed his hands and face but did not shower, change his clothes, or clean or disinfect his equipment and tools. He then drove his vehicle to the main office and signed out. Again, no record has been located that would confirm that this occurred. Mr Hinze claimed that he had asked a woman behind the desk in the office, 'Am I right to go now?' and that she answered 'yes'. As he left the Quarantine Station, Mr Hinze was conscious that he had gone in without wearing protective overalls and left without showering out. He said he assumed that if this had involved a risk he would not have been allowed to leave. He accepted in hindsight he should have taken it upon himself to inform AQIS staff of the nature of his visit before he left the station.

Mr Hinze returned to his car and drove with Mr Carey to the Lone Pine Tavern at Rooty Hill, where they had lunch with Mr St John. Mr Hinze said that at lunch he made telephone calls to Coolmore Stud and his apprentice, Mr Durr Badenhorst, at 1.49 pm and 1.50 pm. Mr Hinze rejected a suggestion that when he had made these calls he was in his car on the way back to Newcastle. He recalled leaving the tavern at some time between 2.00 pm and 2.30 pm.

Mr Hinze was closely questioned about the route he took to Newcastle and the various calls that he made using his mobile telephone during the journey. This was done to test whether he had stopped somewhere on his way home and had contact with a horse. His evidence was that he drove directly from the Lone Pine Tavern to Newcastle to collect a suit for his wedding. He said the only stop he made along the way was for five minutes at a service centre on the F3 freeway between Wyong and Warnavale. He then continued along the freeway without any further stops, arriving at Gentleman's Outfitters in central Newcastle at about 4.30 pm.

On the basis of Mr Hinze's mobile telephone records and the route he apparently followed from Rooty Hill to Newcastle via the F3 freeway, it was suggested to him that about 30 to 45 minutes remained unaccounted for. Mr Hinze denied any suggestion that he had stopped during this period to treat a horse. He maintained that he had gone directly to Newcastle, collected his suit, and driven to his home in Muswellbrook. He said the only horses he came into contact with after leaving Eastern Creek were his own horses, which he fed after he arrived home. Mr Hinze said his horses did not show signs of equine influenza until 29 September.

About 12 weeks after giving oral evidence before the Inquiry Mr Hinze made a statutory declaration in which he stated that, on his way from the Lone Pine Tavern to Newcastle, he had stopped at the premises of a dressmaker, Ms Jennifer Rose, in Tudor Street, Hamilton, to collect a bridesmaid's dress for his wedding.¹²¹ (Tudor Street, Hamilton, is a few kilometres from the centre of Newcastle.) Mr Hinze said he had been reminded of this by his wife after he had earlier given evidence, and he now recalled parking outside the dressmaker's premises in Hamilton and paying for the dress with his debit card. A Westpac EFTPOS transaction record shows the payment from Mr Hinze's debit card as being processed at 3.58 pm.¹²² Mr Hinze said he left the premises in Hamilton after about 10 minutes and travelled directly to Gentleman's Outfitters. This additional evidence explains Mr Hinze's movements that afternoon and effectively eliminates the possibility that he had time to stop and treat a horse on his way home. Accordingly, I do not think that Mr Hinze had contact on that day with any horses outside the Quarantine Station other than his own.

The following day, 15 August, Mr Hinze treated the mare Miss Precisely and a number of foals at Coolmore Stud. In subsequent days he worked with horses at Coolmore Stud only.

The evidence of Dr John Freestone, the head veterinarian at Coolmore, is that no horses at the stud displayed symptoms of equine influenza before 28 September 2007.¹²³

On this evidence, I cannot and do not make any findings linking Mr Hinze's attendance at Eastern Creek on 14 August with the subsequent escape of the virus into the general horse population. The evidence does not suggest that he had any contact with any horse that participated in the Maitland event between 17 and 19 August 2007.

8.8 Shared responsibility

In Chapter 3 I discuss Australia's quarantine policy and the principle, which I endorse, that it involves a 'shared responsibility' between governments and others, including those involved in the importation of the relevant animals, plants or other goods. For the reasons that follow it is my view that the veterinarians, grooms and farriers at Eastern Creek could reasonably have been expected—in the interest of their charges and their charges' owners, as well as

¹²¹ WIT.COOL.015.0001.

¹²² WIT.COOL.015.0003.

¹²³ WIT.COOL.014.0001 at para. 16.

the interests of the community at large—to exercise a greater degree of diligence and care than they did.

8.8.1 The veterinarians

It does appear that the veterinarians attending Eastern Creek were not inducted or required to sign any documents to acknowledge that they had been advised of their responsibilities while at the station. Nonetheless, as members of the veterinary profession, they could have been expected to take some responsibility for biosecurity in relation to horses being treated by them or with which they came into contact.

The veterinarians from Randwick Equine Centre, a large and successful practice specialising in thoroughbreds and racehorses, either had minimal awareness of the biosecurity risks or did not take adequate steps to mitigate the risk of self-contamination as a result of their contact with the horses in quarantine. The evidence summarised in this chapter demonstrates that the veterinarians did not adequately decontaminate before leaving the Quarantine Station. The currency and depth of their knowledge of, and on occasions their approach to, quarantine give cause for concern. Some examples appear from the following discussion of evidence given by some of those veterinarians.

Dr Adams, a relatively junior veterinarian, had only a basic understanding of the equine influenza virus.¹²⁴ He had never received instructions about biosecurity from AQIS¹²⁵, and he had never discussed procedures at Eastern Creek with any of his colleagues from the Randwick Equine Centre.¹²⁶ Nonetheless, Dr Adams was aware that equine influenza was one of a number of exotic diseases to guard against. He also understood that the virus could be secreted on one's body, clothing and equipment. Even though Dr Adams had only an elementary understanding of equine influenza, it should have been enough, in my view, to impart an awareness of the importance of observing thorough decontamination procedures. Dr Adams did not, however, consider it necessary to shower, even if he was going to another stable to treat horses outside quarantine.¹²⁷

Dr Whitfeld had more than a decade of clinical experience in equine practice¹²⁸ and had attended Eastern Creek from time to time in the preceding seven years.¹²⁹ He did not make any inquiries of AQIS in relation to its requirements

¹²⁴ T1704.

¹²⁵ T1705.

¹²⁶ T1706.

¹²⁷ T1708.

¹²⁸ T1661–T1662.

¹²⁹ T1662.

when he first attended the Quarantine Station; instead, he relied on Dr Nash to tell him the biosecurity precautions he was expected to take. He could not recall the details of the advice he had received from Dr Nash.¹³⁰ Dr Whitfeld said he adopted the decontamination measures followed by Dr Nash. In fact, though, he would make his own assessment of risk and adjust these measures accordingly.¹³¹ For example, if he had examined horses that he considered to be clinically healthy, he would not shower out because he considered it sufficient to wash his hands, and remove his overalls. By his own admission, he had only an ‘elementary’ understanding of equine influenza and was unaware that vaccinated horses could shed the virus sub-clinically.¹³² It is regrettable therefore that Dr Whitfeld assumed that the risk of exotic equine disease at the Eastern Creek facility was low.¹³³ His practice of washing his hands, forearms and face but not showering was insufficient to eliminate the risk of infection, a view that he agreed was correct when it was put to him by Counsel Assisting.¹³⁴

Dr Bruyn had somewhat more experience than his colleagues Dr Whitfeld and Dr Adams. He had practised equine medicine for some 27 years¹³⁵ and had visited Eastern Creek for the first time with Dr Nash in the mid-1990s.¹³⁶ At the time he received no specific instructions from AQIS or Dr Nash, but their practice was to wear overalls and gumboots and to shower out in the staff amenities block, which was kept unlocked.¹³⁷

When Dr Bruyn became a more regular visitor to Eastern Creek, from about 2002 or 2003 he no longer showered out before leaving the Quarantine Station. At that time the showering facilities in the staff amenities block were not accessible because the building was kept locked¹³⁸, and the veterinarians’ overalls and gumboots had been relocated to the veterinarians’ room in the grooms’ quarters. Dr Bruyn was well aware that there was a shower in the grooms’ quarters because it was in a room adjacent to the veterinarians’ room. Even though he would wash his face and hands there, he did not use the shower because it would have been ‘inconvenient’.¹³⁹ This is despite Dr Bruyn’s

¹³⁰ T1662.

¹³¹ T1665.

¹³² T1666.

¹³³ T1670.

¹³⁴ T1672.

¹³⁵ WIT.REX.006.0001 at para. 1.

¹³⁶ T1631.

¹³⁷ T1631–T1632.

¹³⁸ T1632.

¹³⁹ T1633.

admission that he knew of the risks of a veterinarian transmitting equine influenza beyond the Quarantine Station.¹⁴⁰

Dr Bruyn professed to have a reasonable understanding of the disease. He knew it was a viral disease that could be transmitted by means of expired air and particles from horses.¹⁴¹ He also understood that the purpose of the Quarantine Station was to keep such diseases out of Australia and, to that end, horses at Eastern Creek should be treated as potential carriers of exotic disease.¹⁴² It is therefore difficult to understand why Dr Bruyn did not act on this knowledge and instead ‘presumed that [the horses] did not have [equine influenza]’ because he ‘thought that the overseas quarantine would have prevented them from having [the disease]’.¹⁴³ Dr Bruyn should have understood and acted on the idea that post-arrival quarantine was a necessary part of a continuum of quarantine.

Dr Bruyn agreed that it would have been easy enough to express his concerns about the adequacy of the showering facilities to staff at Eastern Creek or to Ms Cushing, for example.¹⁴⁴ In view of this, I consider that Dr Bruyn failed to satisfy an obligation, which I believe he had, to raise concerns about biosecurity measures at Eastern Creek or their absence.

Dr Nash, one of the more senior partners in the practice, claimed to have knowledge of equine influenza and accepted that it was likely that a shedding horse might contaminate a treating veterinarian’s face, hands, hair and equipment. He conceded that before the outbreak it was obvious to him that one of the big risks at Eastern Creek was of equine influenza spreading from horses in quarantine.¹⁴⁵ Yet he chose not to shower out before leaving Eastern Creek and sought to excuse himself by saying that ‘there wasn’t any formal instruction to shower’.¹⁴⁶ This is despite the fact that he was referring to the period before 2004, when satisfactory showering facilities were available to veterinarians in the staff amenities block.

Dr Nash’s attitude to biosecurity is apparent from his conduct on 8 August, when he attended Eastern Creek to examine the Darley stallions. He changed out of his overalls in the veterinarians’ room, which he regarded as a contaminated area.¹⁴⁷ He left without showering out and went directly to Rosehill Racecourse, most probably wearing the cap he had been wearing

¹⁴⁰ T1635, T1642.

¹⁴¹ T1634.

¹⁴² T1634.

¹⁴³ T1634.

¹⁴⁴ T1637.

¹⁴⁵ T1550.

¹⁴⁶ T1550–T1551.

¹⁴⁷ T1554.

inside quarantine.¹⁴⁸ He accepted that there was a real risk, having regard to the decontamination procedures he followed that day, that he could have spread the equine influenza virus outside quarantine if any of the horses had been shedding.¹⁴⁹

It was Dr Nash's professional opinion that the decontamination arrangements at Eastern Creek were unsatisfactory.¹⁵⁰ He did not, however, regard this as a matter he should raise with AQIS because, as far as he was concerned, they were the experts in biosecurity. I think it likely to have been apparent to Dr Nash, however, that his qualifications and experience in equine medicine and infectious disease would have been superior to those of anyone on staff at Eastern Creek.¹⁵¹ Yet it took a specific direction from Dr Widders at least three days after Dr Nash had become aware that Encosta De Lago and Elusive Quality were ill with undiagnosed respiratory conditions to persuade him to resume showering out. It seems to me Dr Nash was prepared to tolerate without objection conditions at Eastern Creek that he knew posed a threat to biosecurity.

Dr Argyle was a sole practitioner who had worked almost exclusively in equine practice since 1998. He first attended Eastern Creek in 2005 and said that for about a year he routinely showered in the grooms' quarters before leaving the station. Like Dr Bruyn, Dr Argyle attributed his abandonment of this practice to 'inconvenience' as well as his 'observation that no one else handling horses appeared to be routinely showering out'.¹⁵² He regarded showering out as necessary only after treating a horse that 'appeared to be infectious'.¹⁵³

It is clear that Dr Argyle shared the view of other veterinarians that there was no convenient facility in which they could decontaminate. But Dr Argyle's evidence was that he understood the purposes of quarantine and that equine influenza was an exotic disease of a highly contagious nature.¹⁵⁴ It is unfortunate that he did not remonstrate with AQIS staff about the inaccessibility of showers and the absence of strict standards of decontamination and biosecurity at Eastern Creek.

Dr Crowley neither wore protective clothing nor showered before leaving the Quarantine Station. The fact that he was not properly inducted as a first-time visitor to Eastern Creek is a concern. He was not a regular visitor, however,

¹⁴⁸ T1571.

¹⁴⁹ T1569.

¹⁵⁰ T1555.

¹⁵¹ T1555–T1556.

¹⁵² WIT.WLYE.001.0001 at paras 9, 10.

¹⁵³ T1726.

¹⁵⁴ T1728–T1729.

and did not treat any horses outside quarantine. He did adopt biosecurity precautions of his own, and they were arguably appropriate in the circumstances.

These veterinarians were all highly qualified equine professionals. They were, or should have been, as conscious of the risks and the need for precautions as the staff at Eastern Creek. I am of the view that, as members of the private profession, each of the veterinarians who attended Eastern Creek failed to take sufficient responsibility for biosecurity in relation to horses they were treating or with which they came into contact.

8.8.2 The grooms

Earlier sections describe groom induction and the deficiencies in the process of it at the time of the equine influenza outbreak. Although the grooms were asked to, and did, sign a groom authorisation form, very few of them thoroughly read the document at the time they signed it or properly appreciated the nature of their obligations. For some of the grooms any induction they received occurred at a time when they were most likely fatigued from many hours of travel. In the circumstances, it would have been advisable for Mr Hankins or Ms Christesen to provide each groom with a copy of the authorisation form, so that the groom could become familiar with the obligations accepted by signing the document.

The grooms were not, however, totally unaware of the expectations of them in relation to biosecurity. Most of those in the August intake had been in quarantine at Eastern Creek several times before. They worked for large studs that, as part of their global operations, regularly moved breeding stallions and other horses around the world. I would expect that quarantine, both in the country of origin and post-arrival, formed part of the daily operations of these studs. Having regard to the concept of ‘shared responsibility’ for biosecurity, I believe it was incumbent on the importers and the managers and operators of the studs to see that their employees received clear instructions about quarantine procedures and to ensure that these employees took adequate precautions—including changing clothes, cleaning footwear, showering out, and cleaning any equipment taken out of the Quarantine Station.

In the light of the evidence, I do not regard the conduct of the grooms, and that of those who employed or retained them, as entirely satisfactory. They, like the farriers, could not be expected to have a veterinarian’s understanding of equine diseases and infectiousness, but they are people who do work with and have knowledge of horses. Their duties involved careful observation. Quarantine, its purpose and the fundamental means of achieving it, by separation and isolation for a period, and the removal of any potential source of contamination—for example, a person or a person’s clothes or equipment—are all simple concepts. That there was a requirement to shower out was a reminder of this. It was,

however, for AQIS to make, specify, communicate, enforce and supervise compliance with the requirements. Nevertheless, the owners and importers, and their employees, also had a responsibility, which was also in their own interest, to do all that they could to ensure strict observance of quarantine requirements.

8.8.3 The farriers

The farriers, especially perhaps Mr Hinze with his experience of valuable horses, could reasonably be expected to have exercised somewhat greater diligence inside the Quarantine Station than they did, but not as much so as the veterinarians, who, as highly qualified professionals, had a greater knowledge of infectious diseases.

Although Mr Barlow changed into gumboots and overalls and showered out each time he tended to horses at Eastern Creek, he could have been more attentive to biosecurity—for example, by taking it upon himself to clean and disinfect his equipment between treating horses at Eastern Creek and treating horses outside quarantine. I accept, however, that he was never told to do so by AQIS. He had been visiting Eastern Creek for a long time, and he recalled an occasion when AQIS decontaminated his tools during a foot-and-mouth disease scare.¹⁵⁵ These experiences should have given him a basic understanding of quarantine and the need and rationale for it.

Mr Hinze, who had never been to a quarantine station, did not follow any decontamination procedures whatsoever (other than washing his hands).¹⁵⁶ He had expected that he would be required to follow certain procedures, such as wearing overalls and showering out, yet he did not do so because, he said, he did not receive any instructions from AQIS, or anybody else, while he was at Eastern Creek.¹⁵⁷

Before carrying out his assignment at Eastern Creek, Mr Hinze did not seek instructions about quarantine procedures, although his superiors at Coolmore, such as stable manager Mr Peter O'Brien and assistant stud manager Mr Adrian O'Brien, were in a position to provide such instructions. I was surprised that they do not appear to have done so.

Mr Hinze had, however, looked after horses in isolation on several occasions during the breeding season at Coolmore Stud. He understood that these horses were potentially diseased and had received instructions from his superiors about the rules and procedures for treating the horses. He was required to wear overalls, use a foot bath coming in and out of the isolation area, and wash down

¹⁵⁵ T1818.

¹⁵⁶ WIT.COOL.007.0001 at para. 18.

¹⁵⁷ T1386.

his tools.¹⁵⁸ Treating horses under quarantine conditions should therefore not have been totally unfamiliar to Mr Hinze.

Mr St John, the senior groom for Coolmore, accepted that he was responsible for Mr Hinze ‘once he was on site to see that he attended our horses and our horses only and to supervise any work I wanted him to do’.¹⁵⁹ He did not, however, regard himself as responsible for ensuring that Mr Hinze observed AQIS requirements in relation to changing and showering out. Mr St John said Mr Hankins had told him that Mr Hinze would receive all necessary instructions on arrival, when he presented himself to staff at the main office.¹⁶⁰ Yet Mr St John knew very well that Mr Hinze did not wear overalls on 14 August and left without showering. He also knew that it was a requirement for grooms, including the four Coolmore grooms under his supervision, to change their clothing and footwear and shower out. It is difficult to understand why Mr St John, who had a great deal of experience with quarantine, assumed that similar requirements did not apply to farriers, who also came into close contact with the horses. In these circumstances, I do not think Mr St John’s failure to intervene is fully justified.

8.9 AQIS officers and contractors

8.9.1 AQIS officers

The Eastern Creek staff who were likely to enter the equine enclosure were Mr Hankins, Ms Christesen, Mr Holloway, Ms Terrie Hayter, Ms Leanne Cavanagh and Mr Patrick Hennessey. Mr Hankins told the Inquiry it was possible that any one of these officers could be involved in supervising the arrival and release of horses from time to time.¹⁶¹ Ms Hayter and Mr Hennessey were present in the equine enclosure on 7 August to help Mr Hankins with the arrival of the three consignments of horses. The only AQIS officer who had direct contact with the horses in the August intake was Dr Widders.

Ms Christesen said that at various times she would do a ‘walk around’ in the equine enclosure although her supervision of horses in post-arrival quarantine

¹⁵⁸ T1831–T1833.

¹⁵⁹ WIT.COOL.009.0001 at para. 41.

¹⁶⁰ T3847.

¹⁶¹ T1901.

had been reduced to a minimum by the previous manager, Mr Mohammad Hamid.¹⁶²

To the extent that any of these other officers entered the equine enclosure, they did not have contact with the horses¹⁶³, and for that reason are not likely to have contaminated their clothing with the virus. Furthermore, the evidence does not suggest that any of these people had contact with horses outside the Quarantine Station during this period.¹⁶⁴

8.9.2 AQIS contractors

The AQIS contractors who entered the equine enclosure were Mr Steven Westman, a labourer, and Mr Phillip Lean, a handyman.

Mr Westman was involved in delivering and moving various supplies, such as hay and shavings, to and from the equine enclosure while horses were in quarantine. He carried out these duties according to the instructions of the grooms or a schedule provided to him by Ms Cushing, which set out the supplies needed for each row of stalls. All supplies were delivered to and stored in the feed shed, in the area immediately before the gate into the equine enclosure. Mr Westman was responsible for taking the required items, usually on Mondays and Fridays, into the equine enclosure on a forklift and offloading the pallets at the end of each row of stalls. The grooms distributed the supplies to the horses. Mr Westman also routinely collected rubbish around the grooms' quarters and put it in a bin. He then took the bin by forklift to the main car park at Eastern Creek.

Mr Westman made daily deliveries of supplies during the August intake and needed to enter the equine enclosure in order to do so. He did not, however, approach or handle the horses or walk along the rows. He told the Inquiry that, although he was not required to shower out after work each day, he had no contact with horses outside Eastern Creek.¹⁶⁵

During the August intake Mr Lean performed various duties in the equine enclosure. He emptied garbage, did some plumbing, repaired a horse drinker in row D of the stables, and carried out minor work in the grooms' quarters.¹⁶⁶

Mr Lean, who lived in one of the houses at the station was not aware of any AQIS requirements in relation to biosecurity at the Quarantine Station and did not engage in any decontamination procedures either before or after working in

¹⁶² T1975.

¹⁶³ WIT.AQIS.012.0001 at para. 96.

¹⁶⁴ T1448 (Christesen).

¹⁶⁵ WIT.AQIS.013.0001 at paras 19, 20.

¹⁶⁶ WIT.AQIS.033.0001 at para. 8.

the equine enclosure. His evidence was that he had no contact with the horses while he was working in the equine enclosure and had no contact with horses outside the Quarantine Station during August 2007.

8.10 Other visitors

8.10.1 The caterers

Starting on 7 August, the caterers, Mr and Mrs Elliott, attended the equine enclosure twice daily to provide catering services to the on-site grooms. One of them would attend at around 11.00 am for about 15 minutes to tidy up the refrigerator in the grooms' quarters and assess the items needed for breakfast and lunch. They would both return at 4.30 pm for between two and three hours in order to prepare a hot dinner.

Mr and Mrs Elliott had a gate key and an access card and could enter the equine enclosure without restriction. They did not sign in or out in the visitors book at the main office. Their practice was to drive straight into the equine enclosure and park alongside the grooms' quarters to unload food and their cooking equipment. Mr and Mrs Elliott did not wear protective clothing during their visits; nor did they engage in any decontamination procedures, for themselves or their equipment, before leaving the Quarantine Station.

Neither International Racehorse Transport nor AQIS gave Mr and Mrs Elliott instructions about biosecurity measures or admittance procedures.¹⁶⁷ All catering services were provided from the grooms' quarters and neither Mr nor Mrs Elliot went anywhere else in the equine enclosure.

8.10.2 Stud representatives

Mr Sunderland attended Eastern Creek with Ms Henry-May on 7 August following the arrival of the Darley stallions from the United Kingdom and Ireland. The visitors book shows they both signed in at 11.30 am, but there is no record of their signing out. They walked to the equine enclosure to observe the unloading of the stallions. Neither of them wore protective clothing. They also walked up and down rows A and B in the stables. Mr Sunderland did not recall entering any of the other rows of stalls or approaching any non-Darley horses. Ms Henry-May recalled walking down the Coolmore row of stalls. They left the Quarantine Station without taking any decontamination precautions, such as changing their clothes or washing their hands.

¹⁶⁷ WIT.DIAM.001.0001 at para. 5.

Ms Henry-May said she returned to her office and did not have any subsequent contact with horses on 7 or 8 August.

Later on 7 August, Mr Sunderland returned to Eastern Creek to observe the unloading of the five Darley stallions from the United States. Again, he did not sign in or out, did not wear protective clothing and did not decontaminate before leaving. Mr Sunderland also had contact with the four Japanese stallions in the course of their unloading at Sydney Airport on 8 August. On the following day he returned to the Darley Stud in Aberdeen with Mr Chapman and Mr McKay, where he had contact with horses at the stud in the course of his duties. Mr Sunderland told the Inquiry that none of the horses at Darley contracted equine influenza before 7 September. I accept that.

8.10.3 Import agents

Mr Julian Cornter visited the equine enclosure on 15 August to drop off some horse rugs to Ms Cushing. He did not sign the visitors book. He said he most probably drove his car into the equine enclosure and parked near the grooms' quarters, so that he could deliver the rugs. He also walked up and down the rows and came within 1 or 2 metres of some of the horses in the turnout yards. He did not shower or change before leaving the Quarantine Station.

I note Mr Cornter's evidence that he rarely had contact with horses other than in the course of his duties. The only horses he came into contact with in August 2007 were being imported or exported through Sydney Airport by International Racehorse Transport.¹⁶⁸

8.10.4 Other visitors

Mr Fowler, a Darley groom, recalled seeing groups of visitors inside the equine enclosure during the quarantine period. He saw them walk around the perimeter of the enclosure but did not see them approach the rows of stalls. He was unable to identify the visitors.¹⁶⁹

Mr Zajic told the Inquiry that on at least two occasions during the quarantine period he saw groups of visitors being escorted by quarantine staff through the equine enclosure and the grooms' quarters. His evidence was that they had not had close contact with any of the horses.¹⁷⁰

Ms Cushing said that during past intakes she had had reason to suspect that grooms occasionally brought visitors back to the grooms' quarters in the

¹⁶⁸ WIT.IRT.001.0001 at para. 46.

¹⁶⁹ WIT.DLYA.010.0001.

¹⁷⁰ WIT.DLYA.013.0001.

evening. She did not, however, believe that any such visits had occurred during the August 2007 intake, and no evidence to this effect was presented to the Inquiry.

The visitors book records several groups of AQIS staff members attending Eastern Creek during the time of the August intake. A large group was present 10 August, but there is no evidence about the purpose of their visit or whether they entered the equine enclosure.¹⁷¹ I note that there were also visits by members of AQIS staff on 13 and 14 August¹⁷²: there is no evidence to suggest that these visitors approached any of the quarantined horses,

Mr Stephen Hunter and two other AQIS staff members attended Eastern Creek on 13 August for the purpose of filming the introduction to a ‘staff training package’.¹⁷³ Mr Hunter took the opportunity to acquaint himself with the station. He inspected the plant quarantine area, the cats and dogs, the laboratory, and, from a distance, the horse stables.¹⁷⁴ This evidence might explain Mr Zajic’s observation of a film crew on the grassy hill (inside the equine enclosure) close to the Darley horses’ turnout area. Mr Zajic said that no one in the group was wearing protective clothing.¹⁷⁵

8.11 Clinical signs of respiratory disease, 17 August 2007

On 17 August 2007 at about 7.00 am Mr St John found that Encosta De Lago had a temperature of about 38.5°C or 38.6°C, with slight coughing and a little nasal discharge. He made a note of his observations in his diary. He spoke to Dr John Freestone, who advised him that blood should be taken and the horse’s chest and lungs should be scanned. Mr St John asked that Dr Whitfeld attend to collect the blood sample. Dr Whitfeld was unavailable and asked Dr Nash to attend instead. Dr Nash had not had any contact with the Coolmore stallions during his previous visits.

Dr Nash arrived at about 10.00 am and examined Encosta De Lago. He was assisted by Mr St John. Dr Nash also performed an ultrasound and took two blood samples, which he later delivered to the Equine Diagnostic Laboratory at Randwick Equine Centre. He returned in the late afternoon to re-examine

¹⁷¹ AQIS.1000.036.0001 at 0008.

¹⁷² AQIS.1000.036.0001 at 0009–0010.

¹⁷³ They signed in the visitors book at 8.26 am but did not sign out: see AQIS.1000.036.0001 at 0009.

¹⁷⁴ WIT.DAFF.007.0001 at para. 2.

¹⁷⁵ WIT.DLYA.013.0001 at para. 39.

Encosta De Lago. Following consultation with Dr Freestone, he decided to start treating the stallion with antibiotics.

On Saturday 18 August Dr Adams attended in the morning to continue treatment of Encosta De Lago because Dr Nash was not working during the weekend. Dr Adams examined the stallion, assisted by Mr St John. Later in the evening, Dr Adams returned and administered penicillin and gentamycin to Encosta De Lago.

On 19 August 2007 at about 10.00 am, Dr Adams examined Encosta De Lago and took a blood sample. After he had treated the stallion a Darley groom asked him to examine Elusive Quality, in row B. Elusive Quality had an elevated temperature (39.9°C) and a slightly elevated heart rate.¹⁷⁶ Dr Adams concluded that the stallion had a respiratory infection or colitis.¹⁷⁷ He put him on a course of antibiotics and fluids and collected a blood sample. Analysis of the blood suggested that Elusive Quality was mildly dehydrated. Dr Adams was of the view that this was possibly a result of the horse not eating or drinking overnight.¹⁷⁸ According to Dr Adams, the results were otherwise within normal parameters. Later in the afternoon of 19 August, Dr Adams returned to continue his treatment of Encosta De Lago and Elusive Quality. He subsequently called Mr Sunderland to discuss Elusive Quality's health.

On 20 August at about 4.40 am Dr Adams received a voicemail advising him that Elusive Quality was ill.¹⁷⁹ He agreed to see the horse with Dr Nash. Dr Adams arrived at about 6.30 am and examined the horse: Dr Nash arrived shortly afterward and also conducted an examination. The stallion had a high temperature, noisy lungs and pulses in both feet and was dehydrated. He did not have a cough or any nasal discharge.¹⁸⁰ They transferred the horse to the surgery stall to enable treatment with intravenous fluids. Blood samples were collected. Dr Nash called Professor David Hutchins, a consultant to his practice, and arranged for him to provide a second opinion. Dr Adams remained at the Quarantine Station to monitor the stallion.¹⁸¹

At about 8.00 am, as he was leaving the Quarantine Station, Dr Nash contacted Dr Widders and informed him that both Elusive Quality and Encosta De Lago were ill from unknown causes and receiving veterinary treatment. Dr Nash did this because of concern about Elusive Quality's condition, rather than that of

¹⁷⁶ WIT.REX.005.0001 at para. 27.

¹⁷⁷ WIT.REX.005.0001 at para. 27.

¹⁷⁸ WIT.REX.005.0001 at para. 28.

¹⁷⁹ WIT.REX.005.0001 at para. 30.

¹⁸⁰ WIT.REX.001.0001 at para. 26.

¹⁸¹ WIT.REX.001.0001 at para. 31.

Encosta De Lago.¹⁸² Dr Widders said he would contact ‘Canberra’ to find out what to do. Dr Widders had not been aware of any health concerns among the horses in post-arrival quarantine until he received Dr Nash’s telephone call.¹⁸³

Dr Nash returned at 11.00 am and met Dr Adams and Professor Hutchins to discuss treatments for Elusive Quality. They decided to increase the level of penicillin. Dr Nash was then approached by Mr St John and advised that three Coolmore stallions—Antonius Pius, Aussie Rules and Stravinsky—had elevated temperatures and nasal discharge. On examination, Dr Nash noted very mildly elevated temperatures and some slight nasal discharge in the horses.

Blood samples were taken from Encosta De Lago, Danehill Dancer and Elusive Quality. Dr Widders advised Dr James Watson at the Australian Animal Health Laboratory that the three horses were exhibiting pyrexia and respiratory symptoms and that plain sera would be sent to him for analysis against the samples taken on 8 August.¹⁸⁴ Dr Watson received those samples early in the morning of 21 August.

At the same time, Dr Nash submitted blood samples from the three horses to his laboratory for pathology analysis. He received those results during the afternoon of 20 August.¹⁸⁵ The results for Encosta De Lago did not raise any concern. The results for Danehill Dancer showed that the horse was ‘recovering’ rather than suffering any major illness. The results for Elusive Quality indicated that the horse was ill, probably with a bacterial infection, and in need of treatment.¹⁸⁶

At about noon on 20 August Dr Widders telephoned Dr Nash and asked him to collect nasal swabs and blood samples from all the horses in rows B and E—those containing the Coolmore stallions and Elusive Quality—for testing by the Australian Animal Health Laboratory.¹⁸⁷ By 4.00 pm Dr Nash and Dr Adams had collected 21 blood samples and 19 nasal swabs. (They were unable to take nasal swabs from two Coolmore stallions, Rock of Gibraltar and Statue of Liberty.) The samples were placed in cool boxes and collected by a courier at about 4.30 pm for delivery to the Australian Animal Health Laboratory.

Dr Nash returned in the morning of 21 August to examine Elusive Quality. The horse’s condition had further deteriorated: he had an elevated temperature,

¹⁸² T1594.

¹⁸³ T1093.

¹⁸⁴ REX.0001.003.0067.

¹⁸⁵ REX.0002.002.0095.

¹⁸⁶ T1585–T1586.

¹⁸⁷ The instructions were also contained in a facsimile sent by Dr Widders to Eastern Creek (CI.0001.020.0002).

nasal discharge, an occasional cough, and slight pulses in his front feet. Dr Nash administered antibiotics. He also treated Encosta De Lago with antibiotics. He returned in the afternoon to treat both horses. Examining Danehill Dancer at the request of Mr St John, he noticed that the horse had swelling in his limbs and a temperature of 38.2°C. He recommended treatment with oral bute. On 21 August Dr Nash was of the opinion that Elusive Quality was suffering from an upper respiratory tract infection that was most probably bacterial and that Encosta De Lago had a low-grade upper respiratory tract infection. He did not suspect equine influenza in either case.

Mr Zajic called Dr Nash early in the morning on 22 August and expressed concern about Elusive Quality. Dr Nash examined the horse, and he too became anxious about his condition. He contacted Dr Bruyn, Dr Leanne Begg and Professor Hutchins for second opinions. Dr Nash also met Dr Andrew Edgar, a Darley veterinarian from the United Kingdom, and Mr Sunderland to discuss the horse's condition. The group visited Elusive Quality but did not handle him. Dr Edgar suggested that Dr Nash contact the Animal Health Trust at Newmarket to discuss the possible presence of equine influenza at Eastern Creek.

During this early-morning visit Dr Nash also examined Danehill Dancer. He thought the horse's condition had improved slightly; he collected a blood sample for pathological analysis. He then examined Antonius Pius, observing a slight nasal discharge, and collected a blood sample. He also examined Aussie Rules but found nothing to alarm him.

Dr Nash returned to the Quarantine Station at about 10.30 am on 22 August and met Dr Begg and Professor Hutchins. They examined Elusive Quality. The consensus was that the horse was suffering from a lung infection and that its current treatment should continue. Dr Nash returned to the station at about 4.30 pm with Dr Bruyn to monitor Elusive Quality. He advised Mr St John that the pathology results for Danehill Dancer and Antonius Pius were normal.

On 22 August the Australian Animal Health Laboratory provided a report on the results of the blood samples collected from Encosta De Lago, Danehill Dancer and Elusive Quality on 20 August 2007.¹⁸⁸ The testing compared those samples with the reference samples collected on 8 August. Dr Widders told the Inquiry he probably saw the report on 23 August.¹⁸⁹ The report said that only Encosta De Lago had sero-converted to equine influenza, while the titre levels of Elusive Quality and Danehill Dancer had remained constant against three different strains.

¹⁸⁸ REX.0001.003.0067.

¹⁸⁹ T1095.

After receiving Dr Watson's report Dr Widders advised Dr Nash by telephone that Encosta De Lago had elevated titre levels, suggesting that equine influenza should be considered as the cause.

On 23 August 2007 the Australian Animal Health Laboratory provided a further report on the blood samples and nasal swabs collected from the other horses in rows B and E. Choisir, Oratorio, Antonius Pius, Aussie Rules and Danehill Dancer all had a positive qPCR result for influenza A on their nasal swabs.¹⁹⁰ Rock of Gibraltar, Antonius Pius, Holy Roman Emperor and Choisir had sero-converted to at least one H3N8 strain.

¹⁹⁰ AQIS.1000.010.0018. See also WIT.AAHL.001.0001 at para. 17.

9 Events at Spotswood Quarantine Station, 8 to 24 August 2007

On 8 August 2007 a consignment of six mares and three stallions arrived at Tullamarine Airport from Japan; the horses were taken by road to Spotswood Quarantine Station. On 11 August a further consignment, of 18 stallions, arrived in Melbourne from the United States and was transported to Spotswood.

Mr Wayne Gundry has been Manager of Spotswood Quarantine Station since February 1989. He is assisted by Mr Angelo Ravaneschi, who has worked at the station since before 1985. Their experience in managing the station stood in contrast with, and gave them an advantage over, those responsible for the management and conduct of Eastern Creek Quarantine Station.

9.1 Events before the August intake

On the morning of 8 August, before the arrival of the horses, three grooms arrived at Spotswood to set up the stalls. They were Ms Maryanne Pengelly and Mr Alex Papandreou, who were engaged by Crispin Bennett International Horse Transport, and Mr Kenneth Best, engaged by International Racehorse Transport. Feed and bedding had earlier been delivered to the Quarantine Station. Crispin Bennett had arranged for the supply of hay for the horses from Japan (with the exception of Black Hawk) from stock held at its premises at Sunbury. IRT had arranged for feed and bedding for Black Hawk and the 18 stallions from the United States.¹

Mr Papandreou and Mr Best were present at Tullamarine Airport when the horses arrived. Mr Best travelled with Blackhawk in one of the transport vehicles to Spotswood. I describe what happened at the airport and during the carriage of the horses to Spotswood in Chapter 7, when dealing with consignment 6.

¹ IRT.0001.004.0207.

9.2 The arrival and induction of grooms

Mr Ravaneschi supervised the unloading of the horses at Spotswood. Mr Best and Mr Papandreou had accompanied the horses from the airport. Ms Pengelly met them at Spotswood to help with the unloading. The Sydney Horse Transport driver Mr Tony Hore also helped to unload the mares and lead them into their stables.² Another driver, Mr Lloyd Baxter from JG Goldner, did not assist with the unloading. When the horses were unloaded, Mr Ravaneschi cleaned and disinfected the vehicles. The two drivers then removed their overalls and left them at the Quarantine Station.³ Neither driver showered before leaving the station, and neither was asked to do so by AQIS officers.

On the afternoon of 8 August Mr Ravaneschi emailed Mr Crispin Bennett and Ms Brooke Matthews, the IRT operations manager in Melbourne, attaching a grooms authorisation form and asking them to complete and return it.⁴ In the email Mr Ravaneschi said he would arrange for the grooms to sign the documents. Mr Bennett and Ms Matthews signed as the representatives of the import agents⁵ and returned the form during the afternoon of 8 August. The evidence before the Inquiry does not reveal whether copies of these documents were also signed by the grooms, although the form makes provision for that. Mr Gundry said the usual practice at Spotswood was for him to explain the procedures of the Quarantine Station to the grooms before the horses arrive, when the grooms are preparing the stalls. The evidence does not tell whether that practice was followed in relation to this consignment from Japan. If it was, Mr Papandreou, Mr Best and Ms Pengelly would have received their induction on the morning of 8 August.

9.3 The stall positions of the horses and the grooms responsible for their care

On 8 August the three stallions from Japan were placed in the main stables in stalls numbered 2 (Black Hawk), 4 (Jungle Pocket) and 6 (Zenno Rob Roy). The mares were placed in temporary pens in the cattle shed and had access to paddocks during the day.⁶ When they arrived on 11 August the 18 stallions from the United States were placed in the main stables in stall numbers 13, 14, and 16 to 23 and 26 to 33. The stall plan for the August intake is shown at Figure 9.1

² WIT.SHT.002.0001 at para. 4; T4378.

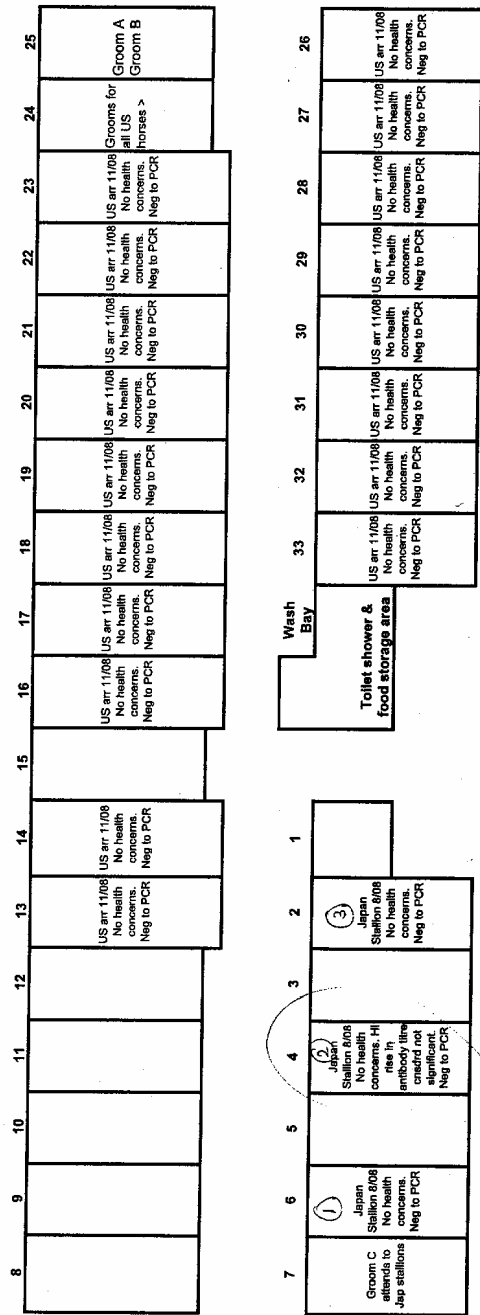
³ WIT.SHT.002.0001 at para. 4; WIT.GHT.001.0001 at para. 3; T4401 (Baxter).

⁴ DAFF.0001.217.0264; DAFF.0001.217.0084.

⁵ CBHT.0001.001.0135; DAFF.0001.217.0345.

⁶ T3142 (Gundry).

Spotswood Quarantine Main Stable Complex



⑥ MARES IN PADDOCKS (ex JAPAN)
All Japanese mares are healthy and tested negative to both PCR and HI on samples drawn 24/08
Groom D cares for all mares

Figure 9.1 The Spotswood stall plan, August 2007

Source: DAFF.0001.012.0298.

Mr Papandreou cared for the two Crispin Bennett stallions, Jungle Pocket and Zenno Rob Roy. Ms Pengelly cared for the six mares. Three IRT grooms, Mr Best, Mr Michael Hewitt and Mr Tetsuhito Hirose, cared for Black Hawk and the 18 stallions from the United States. Mr Hirose did not start work at Spotswood until some time after he had left Eastern Creek on 11 August.

9.4 Access to Spotswood

Access to Spotswood was gained via an electronic vehicle gate and a pedestrian gate that were locked at all times.⁷ All visitors to the station, including the grooms and the veterinarians, were required to sign the visitors book at the entry gate.⁸ In general, visitors were allowed access outside business hours only in an emergency. Mr Ravaneschi lived on site, and any arrangements for out-of-hours access had to be made with him.

The grooms were given a key and were expected to sign the visitors book on entry and exit. Veterinarians were not given a key.⁹ There is, it will be recalled, no permanent accommodation for grooms at Spotswood. Mr Papandreou and Ms Pengelly lived locally. During the August 2007 intake the IRT grooms, Messrs Best, Hewitt and Hirose, lived on site in a caravan arranged for them by the import agent.¹⁰ The grooms wore special work clothing that was left on site, and Mr Gundry said they showered out before leaving the facility.¹¹

9.5 The veterinarian

Dr Meredith Flash of the Flemington Equine Clinic at Ascotvale treated the horses at Spotswood during their post-arrival quarantine.¹² Dr Flash had signed a document entitled ‘Authorisation for veterinarian or farrier to enter the Spotswood AQIS Quarantine Station’ when she began clinical care at Spotswood in June 2007. She recalled being told by Mr Ravaneschi then of the requirements to shower out and to wear overalls and boots when attending the horses.

Dr Flash’s usual practice when visiting Spotswood was as follows.¹³ She would come to the station early in the morning, entering through the main gate and

⁷ T3138 (Gundry).

⁸ T3175 (Gundry).

⁹ T3254 (Gundry).

¹⁰ WIT.SPOT.001.0001 at para. 29; T3173 (Gundry).

¹¹ T3174 (Gundry).

¹² DAFF.0001.217.0011.

¹³ WIT.FEC.001.0001 at paras 7–17.

signing the visitors book in the main office. She parked her vehicle at the front of the stables and then changed into overalls and gumboots in the stables storeroom. She was accompanied during her visit by an on-site groom. She said that on-site grooms did not wear overalls or gumboots but were usually dressed in casual clothing. At the completion of her duties, Dr Flash would take a three-minute shower in the main stables and then change into her day-to-day clothes and leave. She said she followed this routine every time she visited Spotswood in August 2007.

On 8 August at about 4.45 pm Mr Papandreou telephoned Dr Flash and asked that she call at Spotswood to examine Jungle Pocket, which had an elevated temperature. Mr Ravaneschi was advised of Dr Flash's proposed visit and the abnormal temperature in a facsimile from Mr Bennett.¹⁴ When she arrived at Spotswood, Dr Flash was met by Mr Papandreou and Mr Ravaneschi. She examined Jungle Pocket. A Flemington Equine Clinic invoice records that Jungle Pocket exhibited the following clinical signs on examination: 'Temp: 39.5, HR [heart rate]: 52, RR [respiration rate] 30. Harsh lung sounds both side gut—no abnormalities, mild dehydration. Blood for Quarantine.'

Dr Flash treated Jungle Pocket with gentamycin, penicillin and intravenous bute and took a blood sample.¹⁵ She saw that the horse became agitated after the injection and displayed a slight penicillin reaction. Her clinical notes relating to Jungle Pocket were recorded on temperature sheets that remained on site at Spotswood; the notes also recorded the stallion's heart rate, temperature, hydration status and general wellbeing.

After treating Jungle Pocket, Dr Flash showered, changed and left the Quarantine Station. She delivered the blood samples to the Flemington Equine Clinic, where they were collected by a courier for transport to Gribbles Veterinary Pathology in Clayton for testing. The haematology results, dated 9 August¹⁶, reported, 'No overt acute inflammation. Leukogram at this stage most suggestive of stress but can't rule out imminent infection etc'.

On each of 9, 10, 11 and 12 August Dr Flash treated Jungle Pocket at Spotswood with gentamycin and penicillin. On 13 August she attended the station with Ms Sarah Norman, a university graduate who was working as a veterinarian's assistant. On examination, Dr Flash noted that Jungle Pocket had a subtle cough when he ate or exercised. The cough was typical of a horse trying to clear mucus, rather than the drawn-out, harsh cough she thought typical of equine influenza. Dr Flash subsequently formed the view that Jungle Pocket's cough was not a symptom of equine influenza.

¹⁴ CBHT.0001.001.0133.

¹⁵ CBHT.0001.001.0183.

¹⁶ WIT.INQ.012.0003, WIT.INQ.012.0004.

On 13 August Dr Flash also took blood samples from the 18 stallions from the United States, the three Japanese stallions and the six Japanese mares. The samples were taken so that serum could be extracted and sent to the Australian Animal Health Laboratory in Geelong for storage in the national serum bank. Dr Flash and Ms Norman showered out before leaving the facility.

Between 13 and 24 August Dr Flash attended Spotswood to examine some of the stallions from the United States. She did not have contact with the Japanese horses on these occasions. On either 23 or 24 August Mr Hewitt and Mr Best told her that a number of horses at Eastern Creek Quarantine Station had developed high temperatures. The grooms said they had spoken to the IRT grooms at Eastern Creek about the sick horses and the possibility that they had equine influenza.

On 24 August 2007 Dr Flash visited Spotswood after being informed by Mr Gundry that AQIS required blood and nasal swabs to be taken from each of the horses so that they could be tested for equine influenza. She took the blood and the swabs and gave them to the AQIS staff. She also examined one of the mares from Japan, TH Dancer. An email of 24 August from Mr Gundry to Mr Ironside suggests that this mare had a slight nasal discharge and was given antibiotic powder.¹⁷

Dr Flash had treated a number of horses outside Spotswood between 8 and 24 August, some of them at stables at Flemington Racecourse. In her evidence she identified the horses outside Spotswood that were treated during this time: none of them contracted equine influenza.

No farriers worked on the horses at Spotswood in August 2007. Apart from the truck drivers, who had not showered out¹⁸, Mr Gundry was not aware of any other people who had contact with the horses inside the Quarantine Station.

In the light of this evidence and of the fact that there were no reported cases of equine influenza in Victoria, I conclude that, although horses in Spotswood Quarantine Station in August 2007 could well have been infected, the virus did not escape from Spotswood into the general horse population.

¹⁷ DAFF.0001.217.6692.

¹⁸ T3202 (Gundry).

10 Shortcomings in AQIS procedures

The primary focus of the Inquiry came to be on the procedures at Sydney (Kingsford Smith) Airport and the Eastern Creek Quarantine Station. The documented procedures for AQIS officers performing duties at the airport and the quarantine station, including the Live Horse Work Instruction and the draft Operations Manual, are discussed in Chapter 6.

This chapter looks at some of the shortcomings at the airport and at Eastern Creek Quarantine Station, including with respect to the documented process, and other matters. Observations are also made about the potential for a breakdown in quarantine arising out of the apparent lack of coordination between some of the programs at the airport; AQIS officers' scanty knowledge about equine influenza; and the apparent, but unsuccessful, attempts by AQIS to pass on to non-AQIS people responsibility for procedures for biosecurity. Although this last is not directly related to AQIS's procedures, it is convenient to deal with it here since the procedures followed, or that should be followed, by non-AQIS personnel, are part of the overall process of the importation of horses.

After the equine influenza outbreak in August 2007 AQIS developed a new standard operating procedure for the clearance and quarantine of horses from countries other than New Zealand. Promulgated on 5 December 2007¹, the procedure goes some way toward redressing a number of the deficiencies discussed, but it would benefit from further attention.

10.1 Obligation to comply with documented procedures

Before turning to the procedures, it is worth discussing some of the background to the division of responsibility in relation to AQIS's documented procedures (such as standard operating procedures and work instructions) and the requirement to comply with them.

It is the responsibility of the national program manager to prepare documented procedures, to provide any necessary training with respect to those procedures, and to audit compliance with them.² It is then the responsibility of supervisors

¹ DAFF.0001.780.0003.

² T155.

and managers in the regions to ensure that staff are aware of, can gain access to, and are complying with, the documented procedures.³ This division of responsibilities was set out in a document called ‘AQIS policy—standard operating procedures’, issued in November 2005⁴ and revised in September 2006⁵, although the actual arrangements existed before that time.⁶

The evidence was not clear as to whether the officers at the airport and quarantine station were required to comply with such procedures, or whether there was some residual discretion not to do so. Ms Jenni Gordon, for example, expressed the view that procedures contained in documents in the nature of standard operating procedures (such as the Live Horse Work Instruction) would be followed by AQIS staff but that strict compliance was not necessary⁷ and there existed an expectation that, if it were apparent that the procedure ought not apply, the officer concerned would seek advice from a more senior officer as to how to vary the procedure.⁸ Similarly, Dr Phillip Widders said there was an expectation that the Live Horse Work Instruction would be complied with, but that judgment would be exercised, consistent with the risk that the Work Instruction was seeking to deal with. He expected that, if such judgment were to result in non-compliance with the Work Instruction, the judgment would be exercised at his level and not by officers below him.⁹ In contrast, Dr Narelle Clegg stopped short of saying that the Live Horse Work Instruction had to be complied with; instead, she said that, at the time the Work Instruction was promulgated, officers in the regions should have known the ‘national program’ considered the instruction to be the most appropriate way for business to be carried out and would like it to be complied with.¹⁰ Mr Greg Hankins was of the view that ‘the general position on Work Instructions’ was that it would not be within his power to decide that an instruction promulgated by the national program did not have to be complied with.¹¹

The position disclosed in this evidence is not satisfactory. There should be a clear obligation on officers to comply with the Work Instruction except in circumstances that are in themselves described or unforeseeable emergencies, and that provide for senior officers to approve departures in advance of the time, or, if that is not possible, after the event.

³ T155; T385 but cf T400.

⁴ AQIS.2002.015.0001.

⁵ DAFF.0001.507.0132.

⁶ T123 (Gordon).

⁷ T126 (Gordon).

⁸ T126 (Gordon).

⁹ T1010, T1016 (Widders).

¹⁰ T3359–T3360.

¹¹ T1925.

10.2 Procedures for clearing horses when they arrive

10.2.1 Clearance of horses at the airport

The Live Horse Work Instruction did not provide sufficient guidance to AQIS staff in some respects.

One example, raised by Dr Widders (and by Dr Yan Hee Song), was of AQIS officers' powers over entrants to the livestock transfer facility, particularly people who had no good reason to be there or whose role was not essential to the transfer of the horses.¹² The Work Instruction provided that the AQIS officer must ensure that only personnel relevant to the unloading and transport of the horses were present at the transfer area, but it did not specify the basis of the official's authority to restrict entry to that area, to eject people whose presence did not fit that description or whose conduct might otherwise warrant intervention by AQIS in order to preserve the quarantine integrity of the area. AQIS has no proprietary rights or interest in the livestock transfer facility and has no express control over its operation. Its powers must therefore be found in the *Quarantine Act 1908* or another enactment. Dr Widders did not consider that he had the power to prevent people from entering the area.¹³ He had specifically told officers in the national program that there was a problem at the airport of visitors accompanying import agents' staff to it, and had asked them to tell him the powers available to him.¹⁴ He received no response to this request.¹⁵ Dr Hee Song said that the growing number of additional people inside the facility was a problem that he had raised with the senior manager of International Racehorse Transport, Mr Quentin Wallace.¹⁶ Absence of guidance about this led Dr Hee Song to believe that compliance with this part of the Live Horse Work Instruction was impossible.¹⁷ That probably overstates it: it is more likely that the practice of allowing too many people to enter the livestock transfer facility had become so entrenched that it had become easier to allow it to continue than to try to bring it to an end.

The Live Horse Work Instruction also failed to provide details of some of the procedures necessary for the maintenance of adequate biosecurity. It did not, for example, require that AQIS officers inform all people having contact with horses of relevant biosecurity requirements, or the risks to quarantine presented by their activities. As Dr Widders had pointed out in his comments in

¹² WIT.AQIS.006.0001 at para. 31.

¹³ T1010–T1013.

¹⁴ For example, AQIS.2005.085.0005. T1010–T1013.

¹⁵ WIT.AQIS.006.0001 at para. 31, T1010–T1013.

¹⁶ T608.

¹⁷ T630, T637.

November 2003, there was no requirement in the Work Instruction that AQIS officers ensure that all people having contact with the horses (or who had had contact with the horses on the flight) shower and change their clothes before coming into contact with other horses. As is discussed in relation to the consignments arriving in August 2007 (see Chapter 7), entrants to the livestock transfer facility were not consistently given clear instructions about biosecurity measures. Further, although there was a requirement that personnel having contact with horses wear ‘appropriate clothing’, no guidance as to what this might involve was provided. In the absence of specific information about the manner in which a disease such as equine influenza might be transmitted, it would be difficult for a quarantine officer to exercise sound judgment about what might be appropriate.

As appears in Chapter 6, Biosecurity Australia had not been asked to review biosecurity arrangements at Sydney (Kingsford Smith) Airport—nor, for that matter, at Eastern Creek Quarantine Station—until after the outbreak, at which time Dr Mike Nunn reported, ‘The impression gained from this inspection is that the arrangements in place at the ... facilities for unloading and transport of horses at Sydney Airport, particularly in relation to [standard operating procedures] and awareness of biosecurity, require further consideration and enhancement’.¹⁸ This was an understatement. There is no mystery why this did not happen before August 2007. Inertia, inefficiency, lack of diligence, incompetence and distraction by unproductive bureaucratic process all played a part.

10.2.2 Review of import documentation

Import documentation was sometimes reviewed as much as five days after a horse’s arrival in Australia. This is far from ideal. The early period following a horse’s arrival is crucial, particularly in the case of horses that are sub-clinically infected with and shedding the equine influenza virus. Any delay in reviewing the documents accompanying such a horse, and that might, for example, disclose anomalies with the horse’s vaccination, or pre-export quarantine, has the potential to compromise biosecurity and quarantine, and is to be avoided.

Further, as discussed in Chapter 7, the reviews carried out in August 2007 failed to identify a number of matters that should have been identified, among them that some health certificates purported to certify that events had occurred on a date after the date on which the certificate had been signed and that vaccination against equine influenza had not occurred within the periods required by the import permit. It would be far better if a checklist were

¹⁸ AQIS.0002.014.0503 at 0507.

prepared, stating what should specifically be checked by officers responsible for verification of compliance with the import conditions for horses. The checklists in and attached to the Live Horse Work Instruction are not as exhaustive as they could be: for example, there is no item requiring confirmation that a horse's health certificate was signed on a date after the conclusion of the actions the certificate purports to certify.

10.3 Procedures at Eastern Creek Quarantine Station

There were a number of apparent shortcomings in the procedures at Eastern Creek Quarantine Station. Significantly, these included a failure to ensure that grooms, private veterinarians and farriers were complying with biosecurity requirements. Factors that contributed to those shortcomings were the absence of adequate documented procedures and an unawareness of those that did in fact exist. I do not overlook the submission of the Department of Agriculture, Fisheries and Forestry, that absence of written material should not be equated with ignorance on the part of staff at Eastern Creek of the procedures to be followed.¹⁹ That may be so. The submission, however, fails to address the true underlying shortcomings. First, it is clear that adequate procedures were not being followed by AQIS staff at Eastern Creek. Secondly, in the absence of documented procedures, it is difficult to see how AQIS could monitor whether, and satisfy itself that, proper biosecurity measures were being implemented.

A further factor contributing to the situation at Eastern Creek was that—at least in the minds of AQIS officers in New South Wales—the station was understaffed before August 2007.²⁰ Mr David Ironside, although not approving the employment of more full-time quarantine officers, authorised the use of contractors to overcome any shortfall in staff at Eastern Creek from time to time.²¹ He seems to have thought that that was the cure, at least in the short term while work was being done, as part of a fee review, to assess how many permanent full-time officers were needed.²² What was required was that adequate operating procedures be settled and that then an assessment be made as to the staff required to implement them. The evidence does not indicate that anyone was approaching affairs in that way.

In hindsight, and even probably at the time, the fact that further staff were required was obvious. After the equine influenza outbreak additional staff were employed at Eastern Creek: a level 4 quarantine officer with horse-related

¹⁹ SUBS.DAFF.004.0001 at para. 81.

²⁰ T393–395 (Sims); T1947 (Hankins); T961–T963 (Widders).

²¹ T310–T311.

²² T369–T372.

duties, quarantine officers monitoring necessary measures such as visitors' compliance with the requirements to shower in and shower out and to sign in and sign out, and security guards.²³ Mr Ironside conceded that it would have been better if additional staff had been present at the station to do this work before the outbreak occurred.²⁴ On the evidence, it does not seem that Mr Ironside, or anyone else in the national program, had been asked to make additional staff available for those purposes. Even if extra had been requested in a more general way, it appears no request was made for staff to perform tasks that could be seen as essential if biosecurity was to be adequate. It seems likely that if a sound case had been made, funding would have been provided.²⁵

10.3.1 The absence of adequate documented procedures

It was the responsibility of the national program manager of the Post-Entry Animal Quarantine program to ensure that adequate documented procedures existed for the management of horses at Eastern Creek. There was a failure to do this in two respects.

- (a) The draft Operations Manual had been in a draft form since 2004 and was never finalised. Compliance with it was not thought compulsory.
- (b) The documented procedures that were required to be followed—namely, those contained in the Live Horse Work Instruction—were deficient, from a biosecurity perspective, in a number of respects.

For the purpose of overcoming biosecurity deficiencies, the documented procedures applying at the privately operated quarantine facility for horses at Sandown in Victoria provide a useful and obvious point of comparison. It is likely that many of the deficiencies at Eastern Creek would have been overcome if a HACCP (hazard analysis critical control point) or similar risk analysis had been undertaken, or if it had been the practice that Biosecurity Australia review AQIS's procedures from a biosecurity perspective.

The Sandown HACCP manual

As did its predecessor, the Victoria Racing Club, Racing Victoria Limited operates at Sandown a post-arrival quarantine station for horses that is approved under s. 46A of the Quarantine Act.

Racing Victoria Limited has prepared a HACCP-based quarantine program for the Sandown station, set out in the HACCP manual.²⁶ The manual had been

²³ T1950 (Hankins).

²⁴ T3578–T3579.

²⁵ T3662–T3663 (Turner).

²⁶ SAND.0001.001.0012.

approved by AQIS²⁷ but had never been seen by Mr Hankins.²⁸ Dr Widders had seen it and thought it superior, as it is, to the documents prescribing procedures at Eastern Creek in August 2007.²⁹ The HACCP manual describes the purpose of the program at Sandown as follows:

to conduct a hazard analysis of risks at each step of the quarantine management program for international horses attending the Victorian Spring Carnival, identify critical control points where hazards may occur and develop control, monitoring, corrective action, documentation and verification procedures to minimise any possible risk from exotic diseases of horses on a site where dual quarantine stations operate.³⁰

Equine influenza is of concern to the operators of Sandown. It receives particular attention in the manual³¹, and the hazard analysis table in the manual identifies points at which the transmission of equine influenza could occur, and the control measures necessary to prevent its occurrence.³²

The HACCP manual also contains standard operating procedures to cover different categories of people attending the site, and different operational situations that might be encountered.³³ The standard operating procedures are substantially more detailed than those in, and stand in stark contrast to, AQIS's Live Horse Work Instruction. In a number of respects the standard operating procedures in the HACCP manual give rise to more stringent biosecurity measures than the procedures required by the Work Instruction. The following are examples:

- (a) Upon horses arriving at the Sandown station, Racing Victoria quarantine officers—all of whom are veterinarians³⁴—are required to stress the need for all visitors to the quarantine station to follow disinfection procedures and adhere to all standard operating procedures. Further, the first morning after arrival the officers are to check that everyone has understood and is complying with those procedures.³⁵
- (b) A guard is stationed at the station 24 hours a day, seven days a week.³⁶ The standard operating procedure requires the guard to ensure that entry is restricted to authorised people—people authorised by AQIS, Racing

²⁷ WIT.SAND.001.0001 at para. 21; WIT.DAFF.002.0001 at para. 17.

²⁸ T2219.

²⁹ T1037.

³⁰ SAND.0001.001.0012 at 0014.

³¹ SAND.0001.001.0012 at 0022.

³² SAND.0001.001.0012 at 0029–0033.

³³ WIT.SAND.001.0001 at para. 23.

³⁴ WIT.SAND.001.0001 at para. 32, 37

³⁵ SAND.0001.001.0012 at 0046.

³⁶ WIT.SAND.001.0001 at para. 24.

Victoria having submitted to AQIS the person's name³⁷—with a list of these people being kept at the entry area. The entry and exit log must be completed and signed by all who enter.³⁸

- (c) Guards are required to familiarise themselves with the standard operating procedures for grooms, private veterinarians and farriers, and, where possible, to ensure that all procedures are followed, including that private veterinarians and farriers shower before leaving. The guards are also required to ensure that horse gear and other items of equipment are not removed from the station.³⁹
- (d) As with the Live Horse Work Instruction, the HACCP manual standard operating procedure requires grooms to take, and record, the rectal temperature of the horses twice daily. Quarantine officers are obliged, for the first four days of the post-arrival quarantine period, to take steps to ensure that the temperatures recorded by the grooms are correct—for example, by recording the temperatures themselves and comparing them with those recorded by the groom. In subsequent days the quarantine officers must check the temperatures recorded by the grooms and make their own checks of temperatures.⁴⁰
- (e) Grooms are prohibited from having contact with horses other than those in the quarantine station during the period of post-arrival quarantine.⁴¹
- (f) A Racing Victoria quarantine officer is to complete daily operational monitoring reports, recording whether procedures have been followed and whether the required documents have been completed.⁴² They are also required to conduct an internal audit against the HACCP manual once during each period of post-arrival quarantine.⁴³
- (g) Documents must be completed at various stages—for example, by a Racing Victoria quarantine officer after inspection of horse transport vehicles, following quarantine management procedures in respect of horses arriving at the quarantine station, and following the internal audit. They must also be completed by private veterinarians after each visit to a horse and by the security guard each time a person enters or leaves the station.

³⁷ WIT.SAND.001.0001 at para. 31.

³⁸ SAND.0001.001.0012 at 0047.

³⁹ SAND.0001.001.0012 at 0047–0048.

⁴⁰ SAND.0001.001.0012 at 0052.

⁴¹ SAND.0001.001.0012 at 0058.

⁴² SAND.0001.001.0012 at 0053, 0097, 0098.

⁴³ SAND.0001.001.0012 at 0040, 0096.

- (h) Any incidents or failures to conform with procedures must be recorded and corrective action taken.⁴⁴ After corrective action, monitoring might be increased to ensure that the action taken is effective.⁴⁵

Deficiencies in AQIS's documented procedures

Against this background, it becomes plain that the Live Horse Work Instruction was deficient in a number of respects. The following are instances of biosecurity that represent sensible and justified responses to the risk, but that do not receive adequate attention, or any attention at all, in the Work Instruction.

First, in order to ensure adequate biosecurity, the number of people in contact with the horses in a quarantine area should be, but is not, limited as much as practicable, with only authorised people permitted to enter.⁴⁶ The means of obtaining authorisation should be described, and a list of authorised people readily accessible. Further, a security guard or other person to monitor entry to the station is required, together with the necessary physical barriers to prevent unauthorised entry. An entry and exit log should be strictly maintained, under the monitoring of a security guard or other suitable person; Sandown provides the example. Apart from the requirement that grooms, private veterinarians and farriers be authorised to enter, none of these matters is dealt with in the Live Horse Work Instruction. The Work Instruction did provide a process for the authorisation of grooms by the import agent⁴⁷, but not for the authorisation of any other category of visitors. These deficiencies were cured to some extent by the 'groom authorisation' document in use at Eastern Creek. It included a requirement that grooms sign in and out when entering or leaving the station, and required senior grooms to ensure that no unauthorised visitors were allowed in the horse enclosure, and that veterinarians and farriers also sign in and out. But in my view it is no answer to say that the integrity of the station has been protected by the delegation of such a duty. As explained elsewhere, too great a reliance on 'shared responsibility' has led to an unhealthy attitude to such matters in AQIS.

By contrast, access and security are dealt with in the draft Operations Manual, as discussed in Chapter 6. Nevertheless, the draft Operations Manual was not as strict as it might have been because it allowed for visits to the Quarantine Station by owners, trainers, agents and the media (albeit with conditions).⁴⁸

⁴⁴ SAND.0001.001.0012 at 0040, 0110.

⁴⁵ SAND.0001.001.0012 at 0042.

⁴⁶ This is consistent with section 76 of the Quarantine Act 1908 which makes it an offence to enter a quarantine station without written permission of a quarantine officer to do so.

⁴⁷ AQIS.0001.001.0011 at 0027.

⁴⁸ AQIS.0001.001.0080 at 0117.

Secondly, quarantine officers should be fully aware of the biosecurity procedures they are to follow in the Quarantine Station and why those procedures are necessary. Adequate training and sufficiently detailed written procedures should be provided. The Live Horse Work Instruction was not detailed in some respects, and it was not explicit about who was responsible for ensuring that particular things be done. For example, it did not expressly provide that quarantine officers were to ensure that grooms, private veterinarians and farriers complied with the requirements set out in the instruction sheets relevant to them, which were contained in the attachment to the Work Instruction. The draft Operations Manual provided more detail about the procedures to be followed by quarantine officers, but it did not explain why the procedures were necessary. In the absence of an understanding of the importance of these, it is less likely that attention will be paid to them.

Thirdly, people who are authorised to visit the Quarantine Station—such as transport drivers, grooms, private veterinarians, farriers, caterers, cleaners and security guards—should be fully informed of the procedures they are required to follow with respect to biosecurity and the reasons for those procedures. The process of informing them should be by an induction and any necessary training, provision of sufficiently detailed and comprehensible written operating procedures, and a subsequent check to ensure that the information has been fully understood. At a minimum, authorised visitors should be required to sign a document acknowledging and agreeing to comply with the applicable procedures.⁴⁹

These matters were not dealt with in the Live Horse Work Instruction in some respects. For example, no procedures were included for transport drivers generally; nor are there any detailed procedures in respect of the cleaning and disinfection of transport vehicles. Although the attachments to the Work Instruction set out apparently sufficient measures to be taken by grooms, veterinarians and farriers, the Work Instruction would have benefited from more detail about the process of informing people of precisely the procedures to which they are expected to adhere. Significantly, the instruction did not require private veterinarians or farriers to sign any document acknowledging and agreeing to meet biosecurity requirements. The ‘groom authorisation’ document used at Eastern Creek might be seen to provide some further detail about the responsibilities of senior grooms, although it is questionable whether sufficient detail about their obligations in respect of veterinarians and farriers is provided when the document states that veterinarians and farriers ‘are the responsibility of the senior groom whilst they are on the station’. In contrast to

⁴⁹ Consideration should also be given to whether other mechanisms, such as compliance agreements under s. 66B of the Quarantine Act, would be a more effective way of promoting compliance with those procedures.

the Live Horse Work Instruction, the draft Operations Manual contained detailed standard operating procedures for people authorised to visit the station. It required grooms, veterinarians and farriers to acknowledge and agree to comply with requirements—but not other categories of visitors.

Fourthly, quarantine officers and others authorised to enter the Quarantine Station should be required to document their compliance with the procedures applicable to them. This would help clarify for each person what his or her obligations are, and provide a basis for monitoring compliance with them. The Live Horse Work Instruction did not include any such requirement. The draft Operations Manual did to some extent—for example, by requiring declarations from transport vehicle drivers and quarantine officers following inspection of vehicles, but it could have gone further.

Fifthly, the activities of authorised visitors should be supervised or monitored by a quarantine officer or other suitable person, to ensure their compliance with the required procedures. As I observe, the Live Horse Work Instruction did not expressly provide that quarantine officers or anyone else ensure that grooms, private veterinarians and farriers comply with the requirements set out in the instruction sheets contained in the attachment to the Work Instruction, and the requirement in the ‘groom authorisation’ document that senior grooms take responsibility for veterinarians and farriers provided insufficient detail of the process to be followed. Further, the draft Operations Manual did not include express requirements for the monitoring of authorised visitors.

Finally, a review of procedures should occur, to ensure that the procedures remain workable and effective, and that they are being complied with by all. Incidents and failures to comply, and any corrective action taken, should be recorded. The Live Horse Work Instruction did not expressly provide for reviews to occur. The draft Operations Manual did require a system of review and internal audit during and after each post-arrival quarantine.

What is apparent from this analysis is that, even if the documented procedures AQIS officers were required to follow had been complied with at the time of the equine influenza outbreak—those being the Live Horse Work Instruction and the approved local documents discussed in Chapter 6—there were some serious shortcomings in respect of biosecurity. That situation would have been remedied to a large extent if the draft Operations Manual had been complied with, although whether it would provide a complete answer to the problem is debatable.

10.3.2 Lack of awareness of procedures to be followed

At March 2007 the staff at Eastern Creek were not aware of the relevant national documented procedures—the Live Horse Work Instruction and the

Operations Manual. This was despite the facts that people at the Quarantine Station previously were at least aware of the Operations Manual, that Ms Christesen had been fulfilling her role there since June 2006, and that the documents were on the AQIS intranet. Further, although they had been given the Work Instruction and the Operations Manual by at least June 2007, the staff were not aware that they should be following the procedures at the beginning of August 2007. A number of factors appear to have contributed to this situation:

- (a) There was inadequate training when new officers came to the Quarantine Station. Mr Hankins spent only one day with his predecessor, in an exercise Dr Widders agreed would not have been acceptable.⁵⁰ Mr Wayne Gundry, himself a station manager, agreed that a one-day orientation would be inadequate.⁵¹ He suggested that a number of weeks might be necessary.⁵² It was the responsibility of Dr Widders or at least the 'region',⁵³ to organise the training and to ensure that Mr Hankins was aware of the Live Horse Work Instruction and the need for compliance with it. Neither was ensured. Nor was training provided for Mr John Holloway when he began work at Eastern Creek shortly before Mr Hankins. It is noteworthy that since the outbreak an officer has been employed full time to train and assess the performance of staff at Eastern Creek.
- (b) Mr Hankins accepted that, as manager of the station, it was his responsibility to ensure that AQIS staff at the station were aware of the procedures with which they had to comply and that they were complying with them.⁵⁴ Starting in March 2007, he had made an attempt to clarify what those procedures were, but he was incorrect in his assessment that the Live Horse Work Instruction did not have to be complied with.
- (c) Even if Mr Hankins did not consider the Live Horse Work Instruction and the draft Operations Manual had to be complied with, he should have considered whether, and concluded that, they contained procedures that, if followed, would have improved biosecurity. Further, he was aware that neither of the documents was being complied with⁵⁵, and he did not take steps to rectify the situation. He conceded that he had not ensured that Ms Christesen was following procedures in that he had not checked to see whether she was requiring the veterinarians and farriers always to wear overalls and to shower before leaving the station, or whether she was

⁵⁰ T1032.

⁵¹ T3135.

⁵² T3136.

⁵³ T1078

⁵⁴ T1922.

⁵⁵ T1927.

inducting the veterinarians and farriers.⁵⁶ His explanation for not doing so was: ‘Those simply hadn’t come to, I guess, the top of my priorities in my duties that I was conducting’.⁵⁷ To some extent this is understandable given the number of deficiencies he had identified at Eastern Creek and was seeking to rectify, the short time that he had been there, and his lack of experience and training in managing a quarantine station.

- (d) There was insufficient monitoring by managers in the region of whether the documented procedures were being complied with at Eastern Creek. Mr Graham Turner had no knowledge of the procedures to apply at Eastern Creek,⁵⁸ notwithstanding that he held the position recorded in the Work Instruction as having responsibility for ensuring that quarantine officers were aware of and had access to the instruction and were trained in the process of horse clearance.⁵⁹ Ms Julie Sims did not see it as part of her responsibilities to see that work instructions and operating procedures were implemented⁶⁰ or to check that Dr Widders was ensuring that they were implemented.⁶¹

Dr Widders accepted that he had some responsibility for ensuring the Work Instruction was being complied with at Eastern Creek⁶², but he did not know, as at the beginning of August 2007, whether it was being complied with in a number of significant respects.⁶³ For example, he was not aware whether veterinarians and farriers were being required to sign an authorisation before entering the station⁶⁴, all veterinarians were showering before they left the station⁶⁵, or the authorisation by the import agent (contained in the ‘groom authorisation’ form attached to the Work Instruction) was being signed or adhered to by the import agent.⁶⁶ Dr Widders did not specifically ask Mr Hankins or Ms Christesen whether the Live Horse Work Instruction was being followed.⁶⁷ Further, in some respects Dr Widders’ understanding was that the Live Horse Work Instruction was not being complied with. For example, his understanding was that there was not a process in place for AQIS auditing of grooms’ compliance with the requirements set out in the ‘groom authorisation’ form

⁵⁶ T1945.

⁵⁷ T1945.

⁵⁸ T3584.

⁵⁹ AQIS.0001.001.0011 at 0014.

⁶⁰ T385.

⁶¹ T399.

⁶² T975.

⁶³ T1237–T1238.

⁶⁴ T983.

⁶⁵ T984.

⁶⁶ T1195.

⁶⁷ T1212.

attached to the Work Instruction.⁶⁸ He does not appear to have taken any action to remedy that situation.

- (e) No audits to ascertain if there was compliance or otherwise with the procedures were carried out by the national program. (Both Dr Clegg and Mr Ironside gave evidence that audits had not taken place because other matters were of higher priority.)⁶⁹
- (f) There was a lack of communication between the national program (Mr Ironside), Eastern Creek (Mr Hankins) and the region generally (Dr Widders) during the period from March to August 2007. Mr Ironside did not provide sufficient guidance to Mr Hankins or direction as to what use the staff at Eastern Creek should be making of the Live Horse Work Instruction and the Operations Manual. Further, he did not communicate the state of affairs at the station to Dr Widders. Mr Hankins did not seek clarification from Mr Ironside or Dr Widders as to whether he was right to proceed on the basis that neither the Work Instruction nor the draft Operations Manual was mandatory. Dr Widders did not confirm with Mr Hankins that he was aware of what the relevant documented procedures were and that they were being complied with.

It is evident that horse quarantine at Eastern Creek Quarantine Station was a place of ignorance, misunderstandings, misconceptions about fundamental matters, absence of clear communication, and assumptions. I gained the impression that Mr Hankins had a sense of this and was trying to rectify the situation. But he did not have the time, the support from his superiors, and the training and resources that would have enabled him to do that before the equine influenza was imported into, and probably escaped from, Eastern Creek.

10.4 Procedures in relation to crew, passengers and personal baggage

The tasks that ought to have been performed by AQIS airside officers are important. It is not expected that they should have had any direct role in relation to the horses (that being for the AQIS veterinarians Dr Widders and Dr Hee Song), but they were the only people responsible for screening people, luggage and equipment that had arrived with the horses and were not travelling to Eastern Creek Quarantine Station. A number of inadequacies in the manner in which these tasks were carried out and in the documented procedures were apparent.

⁶⁸ T1190–T1195.

⁶⁹ T3353–T3356 (Clegg), T293 (Ironside).

First, the quarantine officer was not always aware, before attending the aircraft, that there were horses on board.⁷⁰ The officer might become aware of this on entering the aircraft, but it appears that was not always the case.⁷¹ If the officer was not aware when clearing the passengers that they were in fact flying grooms, he or she might not be as careful in dealing with the grooms and the luggage as might otherwise be the case.

Secondly, it appears there was no documented or regular procedure for ensuring that a groom did not become re-contaminated by further contact with the horse after having been cleared on board the aircraft by the quarantine officer. For example, a groom's footwear could be disinfected on board the aircraft and then re-contaminated if he or she entered the horse airstall and travelled in it to the livestock transfer facility. Mr Kamaljit Pawar, an acting level 5 quarantine officer who performed the work of a controller when on airside duties, expressed the view that grooms' shoes should be disinfected on the aircraft as well as at the livestock transfer facility to maintain the integrity of the route between the aircraft and the facility, as some grooms' shoes could become re-contaminated in this way.⁷² Nevertheless, that was not part of the documented procedures, and it does not seem to have been done at the beginning of August 2007.⁷³

Additionally, it is apparent that on occasions no proper attempt was made to clear, for quarantine purposes, passengers, their luggage or equipment at all, either because no AQIS airside officers attended the flight or, because if they did, they did not make a thorough inspection or perform any task that would have properly decontaminated an infected person or object. An example of an absence of an AQIS airside officer at a flight occurs when the aircraft has already landed at a port in Australia—Tullamarine Airport—to offload horses before continuing on to Sydney (Kingsford Smith) Airport to offload the remainder. That is what occurred with the 8 August 2007 flight from Japan. There is little point in clearing grooms at the first airport if they are travelling to a second airport because they are obviously likely to continue to have contact with the horses until they are unloaded at the second airport. The grooms should be cleared at the port where they disembark. This was not always happening in August 2007.⁷⁴

Even if AQIS officers attended a flight, the procedures followed were not necessarily sufficient. Mr Julian Cornter, a senior International Racehorse Transport employee who has attended at Sydney (Kingsford Smith) Airport

⁷⁰ For example, WIT.AQIS.003.0001 at para. 9.

⁷¹ For example, WIT.AQIS.004.0001 at para. 10.

⁷² WIT.AQIS.022.0001 at para. 27.

⁷³ T713–T714 (Gallagher).

⁷⁴ For example, in respect of the 8 August 2007 flight, as discussed in Chapter 7.

hundreds of times, considered the requirements at the livestock transfer facility to be inconsistently followed by AQIS officers. Much of the activity, it seems, was of scrubbing boots, washing hands and spraying horse equipment. The equine influenza virus survives on clothing, hair, skin and a variety of other surfaces, none of which received any real attention in the disinfection arrangements described by the AQIS airside officers who gave evidence to the Inquiry. This is evident in the case of grooms who had travelled with the horses on the aircraft but did not then travel to Eastern Creek. The possibility exists that, unless decontaminated at the airport, any one of those grooms could carry the virus into the general horse population. Fortunately, some of the grooms are themselves conscious of the risk: Mr Bruce ‘Snow’ McDonald, whose experience and consciousness of biosecurity matters were impressive, goes to particular lengths to change out of his clothes at the airport, to keep them apart from the rest of his luggage, to wash and disinfect them with a disinfectant solution on arrival at his home, and to avoid other horses.

The evidence does not enable me to conclude that the August 2007 outbreak was caused by the escape of the virus from the livestock transfer facility on a person or equipment. The point to be made, however, is that the procedures in operation and the ordinary activities of AQIS airside officers, as they were in August 2007, were no significant inhibitor of that possibility.

10.5 Absence of coordination at airport

There was an absence of coordination between the activities of the officers of the various programs engaged at Sydney (Kingsford Smith) Airport, with the result that the entirety of the clearance and other activities at the airport were not managed by AQIS in a controlled manner. This permitted breakdowns in the biosecurity arrangements at the airport.

The most telling example of the absence of coordination is that no ‘program’ had responsibility for monitoring any contact with the horses on the aircraft or on movement to the transfer facility. It is clear that employees of the import agent and other people had contact with horses while those horses were on the aircraft. Mr Dennis Kladis, a quarantine officer in the Airports Program, gave evidence that on one occasion he did prevent a number of people from boarding an aircraft⁷⁵, but he did concede that it was possible that they had boarded after he had left.⁷⁶ Additionally, ground handling crew can come into contact with the horses during the unloading of the aircraft. Because AQIS officers were not monitoring contact with the horses before their arrival in the

⁷⁵ WIT.AQIS.002.0001 at para. 13.

⁷⁶ T935.

livestock transfer facility, they would not know how many and who of the people had had contact with the horses and who should therefore be informed of the necessary biosecurity measures.

Similarly, although officers in the Airports Program would disinfect the shoes of the grooms and other passengers arriving on the aircraft, nobody appears to have had responsibility for ensuring that the shoes of other people who might have come into contact with material of risk (for example, by entry into the horse stall) were disinfected.

There also appears to be an absence of a system to ensure that people arriving on the flight with the horses are told of any biosecurity measures they need to take. This is particularly noticeable in the case of people who are not going on to quarantine stations. There are the officers from the Airports Program who are responsible for clearing the grooms and their luggage, which often, as appeared on the evidence, includes disinfecting the grooms' shoes. Officers from this program do not, however, appear to tell the grooms of any other steps that they need to take, such as showering and changing their clothes before having contact with other horses.⁷⁷ It is possible that the veterinary officers might discuss such matters with the grooms at the livestock transfer facility, but that is not a requirement of the Live Horse Work Instruction. Further, it might be that a groom does not go to the livestock transfer facility if other people are present to unload the horse.

Recommendation

I recommend that the operating procedures require that there be identified a person who has overall responsibility for the various clearance procedures and biosecurity tasks to be performed in the course of unloading horses at an airport and transferring them to a quarantine station.

10.6 Lack of information about equine influenza

It appears that at the beginning of August 2007 a number of the AQIS officers involved in the post-arrival importation process for horses were not sufficiently aware of the nature and potency of equine influenza—including its symptoms and how it can be transmitted.⁷⁸ This is despite the fact that equine influenza was one of the greatest risks in terms of exotic animal diseases.⁷⁹

⁷⁷ T940–T942 (Kladis).

⁷⁸ For example, T1415 (Christesen), T943 (Kladis).

⁷⁹ T970 (Widders).

Without a sufficiently detailed knowledge of potential quarantine risks, a quarantine officer is unlikely to be able to understand why particular processes need to be followed and unlikely to appreciate the acts or circumstances that might give rise to biosecurity failures. It follows, that in exercising discretion in the course of their duties—particularly in relation to matters for which the documented procedures are not clear and exhaustive—the biosecurity measures that exist cannot be as strong as they should be.

This knowledge can and should be provided by training, and the provision of operating procedures or manuals for relevant officers.

10.7 Unsuccessful attempts to transfer responsibility to non-AQIS personnel

On the evidence, it is apparent that there were some attempts on the part of AQIS to impose on non-AQIS personnel some responsibility for various matters relevant to biosecurity. On the surface, this may seem consistent with the principle of shared responsibility—between government, industry and the general public—as advocated by the Nairn Review.⁸⁰ AQIS's attempts to impose or shift obligations to import agents, such as International Racehorse Transport, are the subject of this section. Attempts to impose obligations on other people are discussed elsewhere. For example, it is apparent that AQIS's attempt to impose responsibility on veterinarians and farriers for their actions at Eastern Creek Quarantine Station was not wholly successful—at least in part because the veterinarians and farriers were not fully informed of the obligations AQIS intended to impose on them, as discussed in Chapters 6 and 8. Further, it is apparent, on the basis of the evidence discussed in Chapters 6 and 8, that grooms did not always comply with the obligations set out in the documents that AQIS required them to sign.

10.7.1 At the airport

In August 1999 Dr Widders wrote to import agents, including International Racehorse Transport and Crispin Bennett International Horse Transport⁸¹, stating the requirements to apply in relation to the livestock transfer facility. Those requirements, which were expressed to apply to staff of the import agent and truck drivers, included that the number of people attending must be kept to a minimum, any personnel who assist, or intend assisting, with the unloading/loading of horses, and who are not travelling on to Eastern Creek

⁸⁰ Nairn ME, Allen PG, Inglis AR & Tanner C 1996, *Australian Quarantine—a shared responsibility*, Department of Primary Industries and Energy, Canberra, p. 11.

⁸¹ T1016–T1017 (Widders).

Quarantine Station must wear protective coveralls, personnel who handle horses will be required to wash hands thoroughly before leaving the facility, and should not contact horses outside of it until they have showered.⁸²

Dr Widders also required personnel attending the transfer facility to sign and give to the AQIS veterinarian a declaration in the following terms:

Declaration by personnel handling horses under quarantine control

I ... representing ... hereby confirm that I have been advised of the requirement to shower after contacting imported horses, before handling any horses outside of quarantine, in order to minimise the risk of dissemination of infectious disease. I hereby undertake to comply with this directive.

Signed ... Date ...⁸³

In December 2000, following an incident at Sydney (Kingsford Smith) Airport, Dr Widders wrote to Mr Quentin Wallace, Executive Chairman of International Racehorse Transport, asking that he ensure that any personnel contracted by IRT and handling imported horses wear protective clothing and shower and change into fresh outer clothing before handling other horses.⁸⁴

Dr Widders' evidence was that he had ceased requiring people to sign the declaration just quoted at least a year before August 2007.⁸⁵ He had continued on occasion, however, to inform or remind people orally—such as Mr Cornter (Sydney flights operations manager for IRT since December 2005) and veterinarians travelling to Australia with imported horses—of the requirement to change clothes and shower before contact with horses outside quarantine, as had Dr Hee Song.⁸⁶

Mr Wallace, however, did not recall ever having been told to shower after having contact with imported horses and before handling horses outside quarantine⁸⁷, had never instructed Mr Cornter or any of the IRT grooms to that effect, and was not aware that anybody in IRT had provided such instructions to IRT grooms.⁸⁸ Similarly, Mr Cornter had never given instructions to IRT grooms to shower and change clothes before they had contact with other horses.⁸⁹

⁸² AQIS.2005.085.0003.

⁸³ AQIS.2005.085.0004.

⁸⁴ DAFF.0001.235.0001.

⁸⁵ T1018.

⁸⁶ T1019, WIT.AQIS.006.0001 at paras 28–29.

⁸⁷ T1384–T1385. Notwithstanding the fact that he signed the declaration: DAFF.0001.731.0002.

⁸⁸ T1384–T1386.

⁸⁹ T531.

This attempt on the part of AQIS to impose or shift some responsibility for biosecurity measures on or to the import agents was unsuccessful, probably at least in part because the import agents were not sufficiently informed of what was required of them. It was particularly important that such requirements were clearly enunciated when AQIS intended (as appears to be the case from Dr Widders' facsimile transmission of August 1999) the importer to be responsible not only for the actions of its employees but also for those of transport vehicle drivers and any other people involved in the unloading and loading of horses, such as grooms employed by the studs. Again, compliance with the requirements was not monitored or audited in any way—for example, by requiring the importer to confirm in writing, before personnel entered the livestock transfer facility, that those people had been informed of AQIS's biosecurity requirements.

Any misunderstanding in relation to AQIS's expectations of the import agents was obviously not resolved, and AQIS should not have been satisfied that the import agents were fulfilling the responsibilities that AQIS had tried to shift to them.

10.7.2 At Eastern Creek Quarantine Station

As described in Chapter 6, a number of the AQIS documents contained requirements of import agents in relation to activities at Eastern Creek Quarantine Station. International Racehorse Transport also produced documents setting out requirements of its staff at Eastern Creek, the content of which, to an extent, had been provided by AQIS.

AQIS documents

The relevant AQIS documents are discussed in some detail in Chapter 6. Suffice to say here, some of them appear to seek to impose a degree of responsibility for biosecurity matters on the import agents.

The 'groom authorisation' document contained in the Live Horse Work Instruction required the importer to sign a form confirming that it had fully explained the AQIS requirements to the groom and had instructed the groom to comply fully.⁹⁰ On its face, this document would have provided some certainty about the responsibility being imposed on the import agent with respect to grooms at Eastern Creek Quarantine Station. As appears earlier, however, this version of the document was not in use at Eastern Creek.

⁹⁰ AQIS.0001.001.0011 at 0027.

The groom authorisation form that was in use at Eastern Creek⁹¹ said, among other things, that the senior groom:

must ensure that ... vets and farriers that [were] required to attend horses [were] the responsibility of the senior grooms whilst they [were] on the station. They must sign the visitor's book in the Administration office if they attend during office hours or the Grooms register if out of hours.⁹²

It is not clear whether this item purports to impose responsibility on the import agent, through its senior groom, for veterinarians' and farriers' adherence to biosecurity requirements such as showering and changing clothes before leaving the Quarantine Station or merely responsibility for unspecified aspects of their general behaviour. If the former was the intention, I consider the groom authorisation insufficient in its attempt to impose such a serious responsibility. Certainly, neither Ms Cushing nor Mr Wallace understood International Racehorse Transport to have that responsibility⁹³, although Ms Cushing had taken on a supervisory role of sorts in respect of the farrier, Mr Scott Barlow.⁹⁴ Mr Wallace and Mr Cornter were not even aware that the groom authorisation document was being signed by IRT senior grooms in this form.⁹⁵

Similarly, any suggestion in the AQIS documents that the senior groom of the import agent is somehow responsible for the actions of grooms not employed or contracted by the import agent⁹⁶ cannot be justified and had not anyway been sufficiently notified to the import agents. Mr Wallace was not entirely certain how Ms Cushing dealt with the grooms from Darley and Coolmore who were present at Eastern Creek for the shuttle stallion consignments but was of the view that 'it was difficult for her to get control over them if they weren't willing to keep her informed, and so forth'.⁹⁷ Understandably, Ms Cushing did not regard herself as responsible for the actions of any grooms not employed or contracted by IRT.⁹⁸ In the absence of a clear directive, AQIS should not have considered that the import agent, through the senior groom, was responsible for grooms at Eastern Creek who were not employed or contracted by the import agent.

⁹¹ AQIS.1000.003.0050.

⁹² AQIS.1000.003.0050 at 0051.

⁹³ T1507 (Cushing), T1401–T1403 (Wallace).

⁹⁴ T1507, T1785–T1787.

⁹⁵ T512 (Cornter), T1387 (Wallace).

⁹⁶ For example, the Operating Procedures refer to the import agent being the sole person with whom AQIS deals: AQIS.0001.001.0056.⁹⁶

⁹⁷ T1404.

⁹⁸ T1502–T1503.

The International Racehorse Transport Guidelines

Ms Lyn Dressing, IRT's head office administration manager, had drafted a document entitled 'Guidelines for IRT representatives and contract labour caring for horses whilst at the Eastern Creek quarantine facility'⁹⁹ in about 1998. The document had been prepared in response to a request by the manager of Eastern Creek, Mr Frank Piggott, because he had concerns about the behaviour of on-site grooms and the quality of animal care. Ms Dressing had sent a draft of it as guidelines to Mr Piggott and suggested that he provide some information about AQIS's requirements that could be included. Mr Piggott subsequently provided the information, which is described in the guidelines as 'Relevant sections of the "Quarantine Station Operations Manual"¹⁰⁰ and is set out under the statement 'Whilst representing IRT we request that you respect the procedures adopted by AQIS Management covering the operation of the Quarantine Station'.¹⁰¹

These extracts appear to be from the AQIS *Quarantine Station Operations Manual*, prepared in about 1998.¹⁰² The IRT guidelines had not been updated since they were drafted, save for the addition of Addendum I in April 2001 and Addendum II in September 2001.¹⁰³

The IRT guidelines were provided to all Eastern Creek grooms contracted by IRT.¹⁰⁴ Among the aspects relevant to biosecurity were the following:

- (a) in the extracts from the AQIS Quarantine Station Operations Manual
 - (i) The importer must nominate a person among the staff of the importer who must be the senior person for site reference for quarantine personnel and who must have authority over other staff of the importer at the quarantine station.¹⁰⁵
 - (ii) All work clothes, shoes and horse gear must remain in quarantine for the duration of the post-arrival quarantine period.¹⁰⁶
 - (iii) Authorised visitors having close contact with horses must wear protective clothing and boots provided by the Quarantine Station.¹⁰⁷

⁹⁹ AQIS.1001.003.0001.

¹⁰⁰ AQIS.1001.003.0001 at 0008.

¹⁰¹ AQIS.1001.003.0001 at 0008.

¹⁰² DAFF.0001.812.0007.

¹⁰³ WIT.IRT.009.0001 at paras 6–10.

¹⁰⁴ WIT.IRT.009.0001 at para. 9.

¹⁰⁵ AQIS.1001.003.0001 at 0009.

¹⁰⁶ AQIS.1001.003.0001 at 0010.

¹⁰⁷ AQIS.1001.003.0001 at 0010.

- (iv) Equipment that has been in direct contact with the horses must be thoroughly cleaned and disinfected after use and before being removed from the premises.¹⁰⁸
- (v) Transport vehicles are to be cleaned and disinfected.¹⁰⁹
- (b) a statement that the only people permitted to enter the quarantine premises without specific quarantine permission are designated transport drivers, designated grooms and designated veterinarians.¹¹⁰

There was no requirement to shower before leaving the Quarantine Station.

The IRT guidelines therefore required the senior groom to have authority over other IRT staff and implicitly to ensure that those staff comply with any AQIS requirements. Beyond this, they do not appear to seek to impose any additional responsibility on IRT for biosecurity beyond the AQIS documents discussed earlier.

Significantly, AQIS does not appear to have told IRT that anything beyond what was in the IRT guidelines was necessary. Ms Dressing's evidence was that since 1998 she has provided a copy of the IRT guidelines to several successive managers at Eastern Creek and sought their contributions. Before August 2007 she received no comments or 'feedback'.¹¹¹ Her evidence does not, however, specify the latest occasion on which the IRT guidelines were provided to Eastern Creek management. Mr Wallace gave evidence that AQIS had never complained about IRT procedures at Eastern Creek or suggested that there should be alterations to the IRT guidelines.¹¹² This was despite IRT representatives having 'discussions with Eastern Creek staff to make sure everyone's happy and thinking along the same lines'¹¹³ in February 2006, for example.¹¹⁴ In these circumstances, it does not seem unreasonable for IRT to regard itself as adequately meeting any relevant requirements AQIS had of it and its grooms at Eastern Creek.

The Department of Agriculture, Fisheries and Forestry has submitted that AQIS was entitled to expect that those involved in the horse import industry would know what was necessary in terms of quarantine.¹¹⁵ First, even though importation and quarantine involve a number of different parties, the notion of

¹⁰⁸ AQIS.1001.003.0001 at 0010.

¹⁰⁹ AQIS.1001.003.0001 at 0010.

¹¹⁰ AQIS.1001.003.0001 at 0006.

¹¹¹ WIT.IRT.009.0001 at para. 8.

¹¹² WIT.IRT.006.0001 at para. 17.

¹¹³ T506 (Cornter).

¹¹⁴ IRT.0001.001.0017_R.

¹¹⁵ SUBS.DAFF.004.0001 at para. 110.

shared responsibility should not be used by AQIS to dilute or shift its responsibility for ensuring that biosecurity risks are minimised. Secondly, AQIS should have done more to ensure that persons involved in the importation of horses were aware of AQIS's requirements and were complying with them.

Recommendation

I recommend that the officer responsible for the importation of horses prepare a report to the Executive Director of AQIS that:

- (a) identifies (by category) all non-AQIS personnel involved in the importation of horses, including post-arrival quarantine, from countries other than New Zealand
- (b) identifies the requirements in respect of biosecurity that AQIS has of those people
- (c) identifies the source of those requirements—for example, by import conditions, agreement or understanding, whether formal or informal, with AQIS, and compliance agreement under s. 66B of the *Quarantine Act 1908*
- (d) assesses whether compliance with those requirements can be and is adequately being enforced
- (e) recommends measures to be taken to rectify any shortcomings.

10.8 The December 2007 standard operating procedure

After the outbreak in August 2007 AQIS developed a new standard operating procedure for the clearance and quarantine of horses from countries other than New Zealand.¹¹⁶ A number of work instructions and forms are attached to it. The papers were issued on 5 December 2007. They go some way toward rectifying a number of the deficiencies identified in this chapter, and provide for a more coordinated approach between the officers of different AQIS programs at the airport and a stronger biosecurity regime than those provided under the Live Horse Work Instruction in effect at the time of the outbreak. Nevertheless, the operating procedure would benefit from further work. It should be reviewed, taking into account my comments in this chapter and elsewhere in this report. Some specific areas in which it could be improved are discussed below.

¹¹⁶ DAFF.0001.780.0003.

10.8.1 The airport

First, it appears that the new operating procedure might not adequately control who has access to the horses while they are on the aircraft. The procedure requires that quarantine officers establish a ‘controlled area’ for the transfer of horses from the airstall to the transport vehicle. The quarantine officers are responsible for the movement of horses and goods into and out of the controlled area and for ensuring that only people associated with the unloading and transport of the horses may be present in the controlled area. There is also reference in one of the flowcharts attached to the operating procedure to the quarantine officers supervising the unloading of the horses from the aircraft. There does not, however, appear to be any requirement that quarantine officers restrict unnecessary entry into the aircraft and ensure that those who do enter take proper biosecurity precautions. The evidence before the Inquiry made it clear that people associated with the import agents were able from time to time to board aircraft until the outbreak.

Secondly, sufficient detail should be included in the operating procedure or the attached work instructions to ensure that quarantine officers understand why particular acts or processes are required, and behaviour that might give rise to biosecurity risks. For example, the operating procedure requires that people entering the controlled area and not travelling to the Quarantine Station wear disposable overalls, and on leaving the controlled area wash their face and hands and subject their footwear to disinfection. They are not required to shower. I understand that the rationale behind this is that the disposable overalls include a head cover, so that no parts of the person other than their face, hands and feet are exposed¹¹⁷ It is not self-evident, however, that disposable overalls would have head covering. In the absence of further description of ‘disposable overalls’ or explanation to the effect that if a person’s head is not covered he or she should wash his or her hair after being close to the horses, the effectiveness of the operating procedure could be compromised.

Thirdly, the operating procedure should be consistent with the import conditions. It requires that the import agent confirm in writing that all grooms and other people having direct contact with the horses in transit have been advised that they must travel directly to the quarantine station with the horses for personal decontamination there. By contrast, the import conditions appear to contemplate that grooms not attending the horses at the quarantine station may instead shower before leaving the airport.¹¹⁸

¹¹⁷ T3568 (Ironside).

¹¹⁸ AQIS.INQ.001.0103 at 0117.

Fourthly, the requirements in relation to truck drivers are not sufficiently clear. Drivers might have contact with the horses at the airport if they are ‘relevant’ to the loading of the horses. It appears that they would not be required to wear disposable overalls or to wash on leaving the controlled area because they are travelling with the horses to the quarantine station. At the quarantine station, however, they are required to shower on entry and exit, and wear protective clothing only if they leave the cabins of their vehicles or if otherwise directed by the quarantine station manager. In the absence of a procedure under which the quarantine officer at the airport tells an officer at the quarantine station which drivers are to undergo personal decontamination there, potential exists for a failure of biosecurity. Further, some decontamination of the vehicle’s cabin should take place if a potentially contaminated groom or horse equipment is conveyed to the quarantine station in it, even if the driver has not had direct contact with a horse or horses.

10.8.2 The Quarantine Station

The documents attached to the operating procedure are not sufficient to ensure that grooms are fully aware of their biosecurity requirements. For example, although the operating procedure refers to requirements that the groom maintain a detailed health record for each horse (form 5 in the operating procedure) and that a nasopharyngeal swab be taken for testing by qPCR for influenza A virus whenever a horse’s temperature exceeds 38.5°C, neither of those is set out in the groom authorisation document, or the work instruction for authorised personnel. AQIS’s requirements of each category of people who might enter the quarantine station should be clearly set out in a document that can be given to each entrant to the quarantine station, and all important matters should be included in the authorisation document an entrant is required to sign.

The operating procedure requires that 24-hour security be maintained at the quarantine station by a private security firm. Given the importance of this role—which might entail ensuring that people are changing clothes and showering on leaving the station—I think that the operating procedure (perhaps in an attached work instruction) should record the procedures to be followed by the person providing the security. Furthermore, that person should be given training in relation to potential biosecurity hazards and risks sufficient to instil an understanding of conduct and circumstances giving rise to biosecurity threats.

Finally, the operating procedure should refer to and spell out the effect of s. 76 of the *Quarantine Act 1908*, which makes it an offence for a person to enter a quarantine station if that person does not have the written permission of a quarantine officer to enter, and that a quarantine officer has power to give written permission for a person to enter during (or for) a specified period. Quarantine officers must be made aware of this requirement so that third

parties obtain the required written permission, either with or without conditions.

11 The Maitland event

11.1 The context

On 17, 18 and 19 August 2007 the Ranch Riding Club held an equestrian event at the Rutherford polocrosse ground and at Carroll's Ranch, which are both a short distance from Maitland, New South Wales, on Anambah Road at Anambah. Evidence before the Inquiry led to the identification of the event as the occasion of the rapid spread of equine influenza into the general horse population of New South Wales and Queensland. Thorough investigation of the relevant circumstances of that event and of the horses in attendance at it was therefore necessary.

Some 220 entrants competed in the event. All competitors were interviewed, and their evidence was placed before the Inquiry, as was that of judges at the event and other relevant witnesses. Each competitor gave evidence of the location of his or her horse or horses in the weeks before the event, how they travelled to the event, and their opinions about when their horses first contracted equine influenza (if they did). They also gave evidence about where they stayed overnight during the event and whether they observed symptoms of equine influenza in their or other horses.

The competitors whose horses experienced early onset of the disease after the event provided evidence about contact between their horse (or horses) with farriers, veterinarians, horse dentists, chiropractors, remedial therapists, feed suppliers, commercial horse transporters, the Randwick Equine Centre, the Wollondilly Equine Centre, the Coolmore or Darley Studs, or officials of AQIS. They were also asked to describe the health of their horse (or horses) in the lead-up to the event.

All this information—detailed, indeed apparently comprehensive, as it was—supplied by competitors and the further extensive investigations it prompted, still did not enable me to link the event at Maitland and any particular person, occasion or incident at Sydney (Kingsford Smith) Airport, Tullamarine Airport, Eastern Creek or Spotswood Quarantine Stations, or the transportation of horses from the airports to the quarantine stations.

11.2 The Centennial Parklands Equestrian Centre

The early cases of equine influenza that emerged following the Maitland event were widely dispersed, and did not immediately prompt notification to the New South Wales Chief Veterinary Officer, as required by legislation, because, it seems clear, the symptoms shown were of an exotic unfamiliar disease. The first notification occurred following the rapid spread of the disease within the Centennial Parklands Equestrian Centre, where about 200 horses were gathered in a relatively small area.¹ In the early days of the outbreak, it was thought that horses at the Centennial Parklands location were the first to be infected in the general horse population and that the disease had spread directly from the quarantine system to it.

The evidence all pointed to the first instance of equine influenza at Centennial Parklands as being in Ms Millie Beardmore's horses on 22 August 2007, after she had competed at the Maitland event. Dr Derek Wong, a veterinarian in practice at Centennial Parklands, said he was not aware of any horses that had symptoms consistent with equine influenza before 23 August 2007. It was Dr Wong who first notified the New South Wales Department of Primary Industries of the outbreak of respiratory disease at Centennial Parklands; he did this on 24 August 2007.

Dr Wong had treated many of the Centennial Parklands horses before the equine influenza outbreak. If horses were showing symptoms of the illness, it is highly likely that those symptoms would have been apparent to him or brought to his attention. The absence of any relevantly diseased horses at Centennial Parklands before 22 August 2007 was confirmed by the evidence of Ms Augusta Clarke and Ms Beardmore, both of whom taught at riding schools based in the park, Ms Dee Vodden, the Centre Manager of Centennial Parklands, Mr David Caple, a senior ranger, and Ms Catherine Thurley, who was relieving Ms Vodden during the two weeks before the outbreak.

11.3 Organisation of the event

The Ranch Riding Club is a not-for-profit equestrian organisation affiliated with the Equestrian Federation of Australia, Eventing New South Wales and the New South Wales Show Jumping Council. The club holds one or two events a year, including of dressage and show jumping. Many months before the arrival of the consignments of horses that entered Eastern Creek and Spotswood Quarantine Stations between 3 and 13 August 2007, the Ranch Riding Club had organised the event in question. It was a 'one-day event',

¹ WIT.CPEC.001.0001.

although actually held over two days, and tested competitors in three equine disciplines in succession—dressage, show jumping and a cross-country.

Mrs Vicki Burgess, of Eventing New South Wales, had been employed by the Ranch Riding Club to organise the event. She handled registrations, entrance details and fees, and administration generally. For the purposes of insurance and competitor qualification for future events, she was careful to keep a record of all competitors and was accordingly able to produce to the Inquiry useful details of the names of the competitors, the names of their mounts, the classes competed in by riders and horses, the day, time and arena for each phase of the event, and the results. Mrs Burgess also kept records of the identifying number on each rider when he or she competed and the owner of the horse competing (sometimes not the rider). This thoroughness of Mrs Burgess in keeping records instilled a high degree of confidence in their reliability.

In the interest of privacy, the addresses and telephone numbers of competitors were not formally put in evidence publicly, although they had been supplied by Mrs Burgess. It appears that there were no competitors from Victoria or southern New South Wales at the event: all were from north of the Australian Capital Territory. Overwhelmingly, they came from Sydney and the Central Coast, Newcastle and the Hunter regions of New South Wales; although two were from Queensland.

The most accomplished riders competed in the ‘one-star’ class. They were eligible to compete in this class only if they had at least three qualifying results at pre-novice level. The competition also included pre-novice, preliminary, introductory and newcomer classes.

The dressage and show-jumping sections were held at the polocrosse ground. An aerial photograph of them was in evidence.² The grounds are in two sections. The eastern one is a triangular paddock divided in half by an S-shaped dirt road. It was in this area that competitors parked their floats; there were also some temporary yards for horses to stay in overnight. The western half of the polocrosse ground was a square-shaped paddock. During the event this paddock was divided into various arenas in which competitors could warm up their horses before competing.

Two businesses provided the temporary yards that were erected in the eastern half of the polocrosse ground during the event. One was operated by Mr Daniel Morley and traded as Southern Cross Stockfeeds. On 16 August 2007 Mr Ray Thomas and Mr Glen Morley (Mr Daniel Morley’s father) came to the polocrosse ground and erected 32 temporary yards, in response to bookings by

² CI.0001.023.0009.

registered competitors. The yards were on the north-east side of the S-shaped dirt road dividing the paddock, and were known as the Southern Cross Yards.

On the other side of the dirt road another 20 temporary yards were built on 16 August 2007 by a different company, controlled by Mr Karl Steininger. They were configured as 16 double yards in a row with a further four yards from them, the 'Over the Top Yards'. There were two taps at each end of the Over the Top Yards which were a focus of activity for horses and their owners throughout 17 and 18 August.

Mr Morley supplied a diagram of the Southern Cross Yards, having recorded on it the names of the people who had reserved the yards in advance. He also provided his booking records.³ Mr Steininger made a diagram of the Over the Top Yards⁴ showing the names of the people who had reserved stalls there. As it turned out, there was some swapping of yards and squatting in yards that had not been booked. The statements taken from various witnesses made it possible, however, to locate the competitors who occupied the Southern Cross Yards and the Over the Top Yards on the evenings of 17 and 18 August.⁵

The Southern Cross and Over the Top Yards were of pipe railing. These were not a solid barrier between horses in different stalls. Equine influenza virus therefore had a clear path of transmission to many horses.

The one-star class competed in its dressage and show-jumping phases on the afternoon of Friday 17 August. All other classes were set for their dressage and show jumping events on Saturday 18 August. Ten riders from the Indian Equestrian Federation participated in a separate dressage competition at the polocrosse ground on the Friday afternoon. This had been organised by Mrs Sharon Carroll; the riders rode local horses and had not brought any equipment with them from overseas.⁶

The cross-country section took place on Sunday 19 August at Carroll's Ranch, a short distance from the polocrosse ground. All classes competed. The layout of Carroll's Ranch and the area of the cross-country course are shown on a plan that had been lodged with Maitland City Council and was in evidence here.⁷

³ SCSF.0001.001.0006.

⁴ STEI.0001.001.0005.

⁵ EII.0006.001.0261. This table provides information as to the colour of a horse in the yard, the rider of that horse, the night or nights that the horse was in the yard (F meaning Friday, S meaning Saturday) and the date (if at all) that the horse contracted equine influenza.

⁶ WIT.MAIT.022.0001_R at paras 18–25.

⁷ CI.0001.023.0004.

Dr Derek Major, managing partner of the Agnes Banks Equine Centre, was the nominated veterinarian for the event. His role was fairly informal, being mainly concerned with overseeing the cross-country competition, during which he did not have to attend to any emergencies. Dr Major had broken his ribs and did not compete in any phases himself.

As a matter of scientific curiosity, Dr Major became interested in the spread of equine influenza after the Maitland event. Together with Mrs Burgess and another veterinarian from his practice, Dr Josie Holmes, he made inquiries of a number of the competitors and other people in an effort to identify the horse that might have brought the virus to Maitland. Dr Major and Mrs Burgess both supplied helpful information at the outset, greatly assisting the Inquiry. Dr Major produced a diagram of the triangular eastern half of the polocrosse ground as it was configured during the event. Participants were asked to mark that diagram to identify the location of their floats and where (if at all) their horse stayed in the temporary stalls at the polocrosse ground.⁸

11.4 An infected horse

In the weeks following the Maitland event there was a rapid outbreak of equine influenza in New South Wales and Queensland—almost an explosion. By 10 October 2007 the total area infected was 278 000 square kilometres, with 4500 infected premises in it.⁹ Epidemiological tracing of the disease as it affected the general horse population of New South Wales and Queensland fairly clearly established that the outbreak was spread by horses that had competed at the Maitland event.¹⁰

Although equine influenza is a notifiable disease, there had been no reports of it in the general horse population before the Maitland event.¹¹ Despite the public interest in the outbreak, no evidence was produced that might even suggest an instance of equine influenza before the Maitland event.

The earliest date of the appearance of symptoms of equine influenza suggested to the Inquiry was 21 August 2007. There were three instances—in a horse owned by Ms Aimee Small, at Cooranbong on the Central Coast of New South Wales; in two horses owned by Ms Hannah and Ms Clare Anderson, at Arcadia near Galston in the north-western suburbs of Sydney; and in a horse owned by Mrs Cheryl Grant, near Tamworth. On the following day, the first two horses at

⁸ An example of a completed mud map is EII.0006.001.0067.

⁹ DAFF.1000.032.0308 at 0313.

¹⁰ AQIS.0001.043.0335; DAFF.1000.032.0308.

¹¹ WIT.DPI.002.0001.

Centennial Parklands started to show symptoms. Those were owned by Ms Beardmore.

More than 30 other horses over a large area of New South Wales and Queensland began to show symptoms of equine influenza within a few days of 21 August. All had attended the Maitland event. Each of the early cases (except Ms Jessica Farrell's horse) had stayed at the Rutherford polocrosse ground on the evening of 18 August 2007.

In the opinion of Dr Andrea Britton, an epidemiologist, the extent of spread of the infection during the Maitland event (as evidenced by the large number of symptomatic horses shortly afterwards) was too great to have been caused by anything other than an infected horse or horses at the event. A person, a piece of equipment or a vehicle with fomites of the virus would not, in her opinion, have been able to infect so many. In all likelihood, a horse that was sub-clinical or showing early signs of the disease had attended the event.¹² A number of witnesses gave direct evidence of a horse displaying symptoms of equine influenza (including the distinctive cough) at the event.

At about 5.30 or 6.00 am on Saturday 18 August Ms Small, who had stayed at the polocrosse ground on Friday night, walked from her float towards portable lavatories at the eastern end of the Over the Top Yards. On the way, she heard a horse coughing. The coughing was coming from east of the centre of the Southern Cross Yards, in the row closest to the Over the Top yards. The area Ms Small identified was occupied by horses brought to the event by Ms Nicola Richardson and Mr Norman Hindmarsh. Ms Small observed that the coughing horse was covered in blankets and had a hood over its head. The other horses in that area were also wearing rugs. Ms Small was unable to give evidence of any distinctive features of the coughing horse; she recalled the cough as a hacking one, as if the horse were trying to clear its lungs.¹³ She knew neither the horse nor its owner.

Six or seven hours later, at about 12.30 pm, Ms Christine Bates, a competitor at the event, went to a tap at the western end of the Over the Top Yards. While there she heard a distinctive cough coming from a stall in the Southern Cross Yards. She described it as dry, with a roughness that was unusual. As she looked up the horse coughed again. Ms Bates was about 20 metres away from the horse; she recalled that it was a chestnut and was beside another chestnut. She remembered that one of the horses had a rug on, and the other did not. She also recalled that a woman aged between about 20 and 30 years, with dark hair and wearing a T-shirt and jodhpurs came up and stood in the general vicinity of the coughing horse. Ms Bates did not recognise the woman or the horse.

¹² DPI.0001.002.0001 at 0019.

¹³ WIT.MAIT.003.0001 at paras 16–17; EII.0001.001.0008_01.

Ms Bates pointed out on a plan in evidence where the horse had been. That area was occupied by horses brought to the event by Ms Julie Allen, Ms Kathleen Chadderton and Mr Michael Goddard. Ms Allen's horse was a chestnut and Ms Chadderton's horse was a bay; Mr Goddard's was a grey.¹⁴

Ms Carolyn Murphy, another competitor, heard a horse coughing at about the same time as she was walking her horse from a float to the show-jumping area. She could not recall whether the horse was in a yard or tied to a float. She looked over her shoulder because she thought the cough unusual, and different from any she had heard before. She looked at the horse. By the time she came to give evidence, Ms Murphy could not remember what the horse looked like, but she did not think it had any distinctive features. She marked on the plan the place where she had heard the coughing.¹⁵ It was near the south-eastern area of the Over the Top Yards. That area was occupied during the evening (but not necessarily at this time) by horses belonging to Mr Chamberlain, Ms Emma Cudmore and Ms Cheryl Grant. It was some distance from the area identified by Ms Bates.

Between about 1.00 pm and 2.00 pm on the same day Mrs Patricia Chadwick telephoned her friend Ms Deborah Hornby and told her that she could see 'a horse coughing up a lung'. Ms Hornby gave evidence of the conversation¹⁶, which had been overheard by Mrs Chadwick's daughter Stacey, who was another competitor.¹⁷ Ms Stacey Chadwick did not actually see or hear the horse her mother was speaking about. Mrs Chadwick remembered telephoning Mrs Hornby several times during the weekend, but she did not recall any conversation with Mrs Hornby in which a coughing horse was mentioned. Mrs Chadwick could not herself recall seeing or hearing a coughing horse.¹⁸ I have no reason to doubt Mrs Chadwick.

Late that afternoon, just before dark, Ms Jodie Hine, a mounted police officer who was also competing, walked her horse between the Southern Cross Yards and the Over the Top Yards, heading west. While she was doing this, she heard a horse cough, once only, in the area of the Southern Cross Yards. Ms Hine described the cough as unusual, and said that since the outbreak of equine influenza she had come to recognise it as characteristic of horses infected with the illness. She described the cough as long, deep and dry. She had never heard a cough like that before 18 August 2007, and it immediately took her attention. She did not look at the horse closely and could not describe it, but she did

¹⁴ EII.0006.001.0261.

¹⁵ WIT.MAIT.067.0001 at para. 14; WIT.MAIT.067.0001 at 0006.

¹⁶ WIT.MAIT.035.0001 at paras 9–18.

¹⁷ WIT.MAIT.028.0001 at para. 17.

¹⁸ WIT.MAIT.032.0001 at para. 24; T2084.

recall that its head was up and that it was not eating at the time it coughed.¹⁹ The area she identified on the plan was in stalls occupied that evening by horses brought by a member of Mr Hindmarsh's group and Dr Holmes.

At about dusk Ms Susan Oram, another mounted police officer competing at the event, was walking in the vicinity of the Southern Cross and Over the Top Yards. She heard a horse in the Southern Cross Yards cough several times. She looked in the direction of it, and saw a grey horse covered by a purple or maroon blanket. Since 18 August Ms Oram had heard the cough of horses infected with equine influenza, and it was her impression that the grey horse she saw that evening had made similar sounds. Ms Oram placed the coughing horse in an area in the Southern Cross Yards.²⁰ Other evidence revealed that the area had been occupied that evening (although not necessarily at that particular time) by horses owned by Mr Norman Hindmarsh, Mr Matthew Constance and Ms Katelee McTaggart, none of whom had a grey horse. A few stalls west of the area pointed out by Ms Oram stalls were occupied that evening by two grey horses, owned by Dr Holmes and Ms Chloe Cook.

In the evening, at about 9.30 or 10.00 pm, Ms Kelly Tompson was in the vicinity of the Southern Cross Yards watering horses that were part of Ms Morgan Crane's group. Ms Tompson heard a horse cough once. She looked up and saw a grey horse in a purple or blue rug. The horse had brown spots on grey. Ms Tompson pointed out its general location.²¹ The area was occupied by a horse belonging to a member of Mr Hindmarsh's group.

Ms Tompson gave evidence that she recognised the horse as being one she had seen earlier in the day. She said its rider had been smoking; that had stuck in her memory. She also remembered that the rider had a German short-haired pointer dog, white and chocolate-brown. She thought the dog's name was Coco. Ms Tompson gave evidence that at the event the man riding the grey horse she had seen coughing had been filmed on video by her father. The film was shown to several witnesses. Dr Holmes identified the person in the video as a colleague, Mr Michael Goddard, who, for reasons given in Section 11.5.4, was a very unlikely candidate for ownership of the coughing horse.²²

Later that night, at about 11.00 pm or midnight, Mr Jamie Birkett was restless and went for a walk from the eastern half of the polocrosse ground towards the western half. As he left his float, he heard a horse coughing in the direction of the Southern Cross or Over the Top Yards. He recalled it as a very dry cough. His float was parked about 30 metres south-east of the nearest point of the

¹⁹ WIT.MAIT.007.0001 at paras 15–17; EII.0001.001.0186.

²⁰ WIT.MAIT.008.0001 at paras 12–13; EII.0001.001.0191.

²¹ WIT.MAIT.009.0001 at para. 12; EII.0001.001.0198.

²² T2183.

Southern Cross Yards. After Mr Birkett returned to his float he still felt restless, and some later time he left the float again, having decided to try to sleep in his car. He remembers hearing the horse cough two or three times at about 4.00 am, the same very dry cough. It was hard for him to tell where the horse was, but he thought it was in about the middle of the Southern Cross and Over the Top Yards.²³

On the morning of 19 August 2007 the competitors left the polocrosse ground and travelled a short distance to the cross-country course at Carroll's Ranch. When they arrived most of them 'walked the course' to familiarise themselves with the jumps and other obstacles they would have to negotiate.

Mr Mark Tarrant, a schoolteacher and a competitor at the event, started to walk the course at about 10.30 am. While he was near a jump called the Sunken Road he noticed that one of the horses competing was coughing as it went over the jump. It 'coughed as it landed ... a heaving or something like that', he said.²⁴ The horse he observed was bay-brown with a black mane and tail. Because competitors wear the same equipment, including a helmet, he could not say much about the rider, but he thought him a male with a lean build.²⁵

Mr Jamie Birkett attended the cross-country event to watch Ms Chloe Cook compete between 2.00 and 3.00 pm. He saw a young female riding her horse up the track from the area of the cross-country course. About 14 to 16 years old, plump, and with dark hair and possibly a ponytail, the girl was speaking loudly. Mr Birkett could not remember what the girl's horse looked like, but he did remember that it coughed a few times as it approached and was breathing very heavily.²⁶

Ms Carolyn Murphy and Ms Christine Bates identified the horse as the 'coughing horse' at different locations. Ms Hine, Ms Oram, Ms Small and Ms Tompson, however, chose a similar area in the Southern Cross Yards—the one occupied by Mr Hindmarsh's group or by Mr Constance, Ms McTaggart or Dr Holmes.

It is very possible that one or more of the observations by Ms Small, Ms Bates, Ms Murphy, Mrs Chadwick, Ms Hine, Ms Oram, Ms Tompson, Mr Birkett and Mr Tarrant was of a horse or horses infected with equine influenza. But the accounts are too inconsistent and incomplete to enable me to determine which horse or horses were the infected ones.

²³ WIT.MAIT.038.0001 at paras 6–7.

²⁴ T2120–T2121.

²⁵ WIT.MAIT.004.0001 at paras 14–16.

²⁶ WIT.MAIT.038.0001 at para. 9.

11.5 The possible identity of the infected horse or horses

This section reviews evidence in relation to the horses that were in areas of the yards identified by witnesses as containing a coughing horse. It also considers evidence linking other Maitland competitors with horses that entered quarantine between 3 and 8 August 2007.

11.5.1 Mr Norman Hindmarsh, Ms Emma Hindmarsh and Ms Lynda Brown

Mr Norman Hindmarsh, his daughter Ms Emma Hindmarsh and Ms Lynda Brown, who agists her horse on Mr Hindmarsh's property at Tamworth, all arrived at the Maitland event on 17 August 2007. The group had travelled in a truck with four horses: three were entered in the event by Ms Hindmarsh and one by Ms Brown. They had travelled from Tamworth two days before and Ms Hindmarsh had had some lessons at a large equestrian school owned by Mr Heath Ryan at Lochinvar, where they stayed overnight.

All three members of the group gave evidence. Each confirmed that the horses in their group were not ill before the event and did not show any signs of sickness during the competition. Although documents recording interviews with Mr Hindmarsh and the New South Wales Department of Primary Industries disclose differences from the evidence he presented to the Inquiry²⁷, the differences were minor. Mr Hindmarsh stated under oath that his horses became sick several days after—not during or before—the Maitland event. I accept that.

In the two days before the event the group had stayed at a private equestrian centre at Lochinvar, where many other horses stayed overnight. Ms Hindmarsh took riding lessons at the centre from a teacher called Ms Emma Mason. Ms Mason confirmed that the horses at the equestrian centre did not become infected with equine influenza until late in September 2007.²⁸

If the horses in Mr Hindmarsh's party were infectious by the time of the event, it is likely that some of those at the Lochinvar equestrian centre would also have become infected. In further examination, Mr Birkett was asked if Ms Hindmarsh or Ms Brown had been the girl with the coughing horse at the cross-country event. He was unable to say.²⁹

²⁷ A one- or two-day discrepancy in the date of first onset of the disease after the Maitland event: see DAFF.0001.001.0276; DAFF.0001.001.0298.

²⁸ WIT.MAIT.061.0001_R at 0067_R.

²⁹ T2306.

There is no reason to reject the evidence of the Hindmarsh witnesses that their horses did not become sick with equine influenza until after the Maitland event. Again, there is no apparent connection between the Hindmarsh horses, normally resident at Tamworth, and the people concerned with the relevant consignments of imported horses in quarantine hundreds of kilometres away in Sydney.

11.5.2 Mr Matthew Constance

Mr Matthew Constance was the first competitor to arrive at the polocrosse ground. He did so in the early hours of 17 August 2007, having travelled from Queensland with his horse Sandy. He stayed at the Southern Cross Yards.

Mr Michael Chamberlain was a competitor whose horse stayed in the Over the Top Yards. Mr Chamberlain lives in the same part of New South Wales as Mr Constance's parents. About a week and a half after the Maitland event, Mr Constance telephoned Mr Chamberlain, for the second time.

Mr Chamberlain gave evidence that during the telephone call Mr Constance said words to the effect 'I travelled home to Brisbane on Sunday after the Carroll's [Maitland] event finished and by the time I arrived back about midnight my horse was sick'. Mr Chamberlain said Mr Constance's statement struck him as strange and the conversation therefore stayed in his memory.³⁰

Ms Emma Armstrong provided a statutory declaration to the Inquiry but did not give oral evidence. She spoke of meeting and talking with Mr Constance before the show jumping phase of the event on 17 August 2007. She said that Mr Constance's horse was struggling with the jumps in the warm-up and looked tired. She said he told her his horse was 'not itself'.³¹

Mr Constance provided a statutory declaration to the Inquiry and gave oral evidence. He said that before arriving at the polocrosse ground he stayed the night of 15 August and the day of 16 August at a property owned by Mr Kevin McNab at Mt Tamborine where there were about 60 horses. Mr Constance gave evidence that horses at Mr McNab's property did not contract equine influenza until about nine weeks after the Maitland event. He said his horse had been eliminated in the show jumping because it had stopped twice: the layout of the course was particularly difficult and there were a number of falls and broken rails as a consequence. Mr Constance first noticed his horse to be showing symptoms of equine influenza on Wednesday 22 August 2007, after he returned from a friend's property at Wynnum.³²

³⁰ T2108; WIT.MAIT.016.0001 at paras 33–40.

³¹ WIT.MAIT.068.0001 at para. 12.

³² WIT.MAIT.014.0001_R at paras 20–21.

In oral evidence Mr Constance said he used a blue rug to cover his horse at the event.³³ He said the horse had been jumping well in the warm-up.³⁴ He denied that it was struggling at that stage, although it did stop at one jump.³⁵ He disagreed with a suggestion that his horse looked tired but accepted that it 'was not one hundred per cent'.³⁶ He denied saying to Ms Armstrong that his horse was 'not itself' but agreed that the show-jumping course was particularly difficult.³⁷ Mr Constance attributed his horse's lack of enthusiasm to the long trip from Queensland but pointed out that his horse had excelled in the dressage test, which had taken 'a lot out of him'.³⁸

Mr Constance explained that when a horse clears the Sunken Road jump it is quite possible that it might exhale heavily and noisily.³⁹ He reiterated that his horse was tired after the return to Minden in Queensland but refused to retreat from his insistence that his horse was not coughing or sick in any way until Wednesday 22 August.⁴⁰

Mr Constance said he telephoned Mr Chamberlain because he had spoken to him at the event.⁴¹ He denied telling Mr Chamberlain that his horse was sick when he arrived in Brisbane at about midnight on Sunday 19 August.⁴²

After Mr Constance gave evidence, Mr Mark Tarrant, who had been asked to sit in at the hearing while Mr Constance was giving his evidence, testified that he was unable to identify Mr Constance as the person who rode the horse that he heard coughing at the Sunken Road jump during the cross-country event.⁴³

Mr McNab provided to the Inquiry a statutory declaration confirming Mr Constance's evidence about his attendance at Mt Tamborine on 15 August 2007.⁴⁴ Mr McNab also confirmed that equine influenza did not reach his property until about five to seven weeks after the event.

If Mr Constance had introduced equine influenza into the event, it is likely that the horses at Mr McNab's property would also have become infected. The differences between the evidence of Mr Constance, Ms Armstrong and Mr Chamberlain are not in my view significant.

³³ T2145–T2146.

³⁴ T2146.

³⁵ T2148.

³⁶ T2148.

³⁷ T2148.

³⁸ T2148–T2149.

³⁹ T2154.

⁴⁰ T2155–T2157.

⁴¹ T2158.

⁴² T2158–T2159.

⁴³ T2169.

⁴⁴ WIT.KAM.001.0001 at para. 17.

Objective evidence supports Mr Constance. Records of the Queensland Department of Primary Industries and Fisheries confirm that his horse exhibited no symptoms of equine influenza until 23 August 2007—not 19 August 2007, which was the date Mr Chamberlain thought Mr Constance had mentioned on the telephone.⁴⁵

Recollections, particularly of words of little importance at the time, are often incomplete or mistaken. The evidence, and my observations of Mr Constance, do not lead me to conclude that his horse was the source of the virus at the Maitland event.

11.5.3 Ms Millie Beardmore

Ms Millie Beardmore travelled with her mother from Centennial Parklands to the Maitland event on the morning of 17 August 2007. It will be recalled that the first notification of equine influenza in the general horse population was given on 24 August 2007, following the rapid spread of the disease at the Centennial Parklands Equestrian Centre.⁴⁶ Ms Beardmore's two horses were the first at Centennial Parklands to show symptoms. She gave written and oral evidence to the Inquiry. She explained that her horses had been in good health before the event. One of them hurt its leg at a fence on the Saturday at the event. That caused her to go home early and not to compete in the cross-country section.⁴⁷ Ms Beardmore was a riding teacher at one of the riding schools that operated at Centennial Parklands and therefore knowledgeable about horses. She had not observed any horses with symptoms of equine influenza before hers exhibited symptoms on 22 August 2007.

Ms Beardmore's evidence was supported by that of a number of witnesses, including Ms Augusta Clarke, Ms Dee Vodden, Mr David Caple, Ms Catherine Thurley and Dr Derek Wong, who said they were not aware of any horses at Centennial Parklands that had symptoms consistent with equine influenza before 22 August 2007.

Ms Beardmore had no association with any person involved with the quarantine of the relevant imported horses. I think that her horses were infected at the Maitland event by another horse that has not been, and probably never will be, identified.

⁴⁵ QLD.0001.001.0018.

⁴⁶ WIT.CPEC.001.0001.

⁴⁷ WIT.MAIT.024.0001 at paras 18, 22.

11.5.4 Mr Michael Goddard

Ms Kelly Tompson thought she saw and heard Mr Michael Goddard's grey horse cough in the Southern Cross Yards on the Saturday evening. The conditions for accurate observation were less than ideal. She saw a 'grey' horse illuminated briefly by a torch in the darkness. Ms Tompson put the location well away from the yard containing Mr Goddard's grey. She was undoubtedly honest as she recalled events, but I am forced to conclude that because of the circumstances her observations are not necessarily reliable.

Mr Goddard is a veterinary nurse employed by the Agnes Banks Equine Clinic. He gave evidence that his horse was in good health before and during the event and for about a week after. The Agnes Banks Equine Clinic has no apparent connection with Eastern Creek Quarantine Station or with people visiting or working there. No horse of Mr Goddard infected any other horse at Maitland in August 2007.

11.5.5 Ms Jessica Farrell

Ms Jessica Farrell's horse Trig seems to have been the only horse suffering early symptoms of equine influenza that was not at the polocrosse ground on the evening of 18 August 2007. That might suggest that her horse introduced the virus to the event. Ms Farrell gave oral and written evidence, however, that her horse was not ill before or during the event. Mr James Mooney, who owned the property where Trig was agisted before and after the event, confirmed this.

Ms Farrell was an honest witness who had no association with matters of quarantine or people connected with them. It is probable that her horse had contact with an infected horse sufficient to infect it during the Maitland event. Ms Farrell could cast no light on the identity of the shedding horse.

11.5.6 Ms Julie Allen, Dr Josie Holmes, Ms Emma Cudmore and Ms Tiffany Williams

Various eyewitnesses to the 'coughing horse' identified it as being stalled in areas in the Southern Cross or Over the Top Yards occupied by Ms Nicola Richardson, Ms Katelee McTaggart, Ms Kathleen Chadderton, Ms Julie Allen, Mr Michael Chamberlain, Ms Emma Cudmore, Ms Cheryl Grant and Dr Josie Holmes. Ms Julie Allen and Dr Holmes owned horses that became ill so long after the event that they could not have been the source of infection at the event. Neither Ms Cudmore's horse nor Ms Williams' horse contracted equine influenza.

11.5.7 Mrs Cheryl Grant

Mrs Cheryl Grant's horses became ill soon after the Maitland event. Her evidence was that there was no appearance of any symptoms before 22 August 2007. Her horses were in the Morpeth or Tamworth areas in the weeks leading up to the event. I could make no connection between her horses and horses in quarantine, or people who had been in contact with horses in quarantine in August 2007.

11.5.8 Ms Nicola Richardson

Ms Nicola Richardson's horse Knightrider exhibited no signs of equine influenza until 23 August 2007. Ms Richardson, who lives near Scone, made a statutory declaration asserting that Knightrider was in normal health during and before the Maitland event. There was no evidence to suggest a link of the kind necessary to conclude that her horse was a carrier of equine influenza before 23 August 2007.

11.5.9 Ms Katelee McTaggart

Ms Katelee McTaggart's horse Flash was at her property near Muswellbrook during the two weeks before the Maitland event. Flash's usual farrier was Mr Lyle Dennis, but he had not worked on Flash in the two weeks before the event. The Inquiry interviewed Mr Dennis. He confirmed that he and Flash had had no contact for more than those two weeks. He did, however, do work for the Arrowfield Stud. He said that in July and August 2007 he had had no contact with Eastern Creek Quarantine Station or with Mr Bradley Hinze, who had been there.

11.5.10 Ms Kathleen Chadderton

Ms Kathleen Chadderton took three of her own horses to the Maitland event. One of them developed a heavy nasal discharge on 24 August 2007. In addition to her own three horses, Ms Chadderton took another horse to the event for a friend. Ms Chadderton has a business called Victory Sport Horses, which is concerned with the training of performance horses, competing horses in events, training riders to compete in events, and selling horses. Ms Chadderton carries on her business at Palm Grove, on the Central Coast of New South Wales. On 18 August 2007 she put three horses in the Southern Cross Yards, where she had not booked places for them. Only one horse stayed there overnight; the others spent the night in wooden stalls at the polocrosse ground.

At about 4.30 am on 19 August 2007 Ms Chadderton was woken by Ms Augusta Clarke, who told her that her horses were out and running free. That was unusual because only one of the horses was to stay overnight in the

Southern Cross Yards and the other two were some distance away in the wooden stalls. Nothing relevant turns on this, however.

In the two weeks before the event Ms Chadderton had observed her horses to be in normal health. In the week before she had travelled to Queensland in her horse truck to deliver a mare and to bring a horse back to her property. She gave evidence that she had no connection with quarantine, or people involved in it.

11.5.11 Mr Michael Chamberlain

Mr Michael Chamberlain's evidence in relation to Mr Constance is summarised in Section 11.5.2 of this report. Mr Chamberlain also said his horse was well before and during the event. He seemed truthful. I accept that he did not have any dealings or contact with quarantine or people involved in it.

11.5.12 Ms Daniella Dierks

On 14 August 2007 Dr James Whitfeld, a veterinarian with the Randwick Equine Centre, visited Mulawa Stud. Ms Daniella Dierks, who worked at Mulawa Stud, was a competitor at the Maitland event and rented a stall in the Southern Cross Yards. Dr Whitfeld and Ms Dierks agreed that he had sterilised his equipment before using it at the stud on 14 August 2007. The horse Ms Dierks rode at the event had been at Mulawa Stud for two weeks beforehand.

Ms Dierks lived with her parents, who are dressage coaches, at Arcadia Road, Arcadia. After Dr Whitfeld attended Mulawa Stud, he visited Ms Dierks' parents' property. Ms Dierks did not know this. She said she did not come into contact with the horses on her parents' property.

The horses at Mulawa Stud did not contract equine influenza until 16 September 2007; Ms Dierks' horse did not become ill until 18 September. Ms Dierks gave evidence that her horse was not sick before or during the event. She said she had had no earlier contact with Eastern Creek Quarantine Station or people connected with it (other, of course, than Dr Whitfeld). I was given no reason to disbelieve Ms Dierks.

11.5.13 Ms Lucy Roberts

Ms Lucy Roberts resides on the Coolmore property in the Hunter Valley. Cattle are grazed there separately from the horses at stud. Ms Roberts attested that her horse was not sick before or during the Maitland event.

On 31 August 2007 nasal swabs from her horse were taken by the New South Wales Department of Primary Industries. They were negative for equine influenza. Ms Roberts gave evidence that there was no equine influenza at the Coolmore Stud until about October 2007. She said it was only in October that horses in numbers there first contracted equine influenza.⁴⁸ I accept her evidence.

11.6 Conclusions

In the early stages of the outbreak, the local Disease Control Centre of the New South Wales Department of Primary Industries strived to identify the first infected animal at the Maitland event, in the hope of finding the first carrier or shedder of the disease.⁴⁹

Drs Hoare, Britton and Major and Ms Vicki Burgess were the people who tried to identify the horse that brought equine influenza to the event. They were unsuccessful. I had the benefit, however, of the results of their extensive inquiries.

The probability, it seems to me, is that the owner of the horse bringing the virus to the Maitland event would have had to have been aware of symptoms no later than the evening of Sunday 19 August 2007. All of the competitors who gave evidence said that they had not noticed any symptoms in their horses at that time.

The owner of the earliest infected horse or horses in the general horse population might have had some association with a person or people in contact directly or indirectly with affected imported horses. Such an association could provide a motive for the owner of an infected horse or infected horses at the Maitland event to conceal the identity of a person associated with or responsible for the escape of the disease from quarantine. There might also be an apprehension of social disapprobation or legal disadvantage for such a person or a person who introduced or caused the spread of the disease at the event. These factors could explain the suppression or withholding of information that would identify the horse that introduced the virus.

The AQIS officers seconded to the Inquiry also sought to find the carrier of the virus. That they could not do so is no criticism of them. There must have been such a horse. But, as neither they, the people conducting the inquiry for the New South Wales Department of Primary Industries, nor I, have been able to identify the horse or its owner, I doubt whether anyone else will.

⁴⁸ T2330.

⁴⁹ WIT.DPI.001.0001 at para. 16.

I nonetheless repeat that if anyone has information that would, even now, help with such an identification, that person should come forward. The importance of identification is that it would enable the link to be made between introduction of the disease and its escape. In this way, it would assist the authorities to close the pathway along which the virus travelled and could travel again in the future.

12 Scientific testing

12.1 The samples taken

The consignments of horses entering the Eastern Creek and Spotswood Quarantine Stations in early August 2007 came from the United States, Ireland, the United Kingdom and Japan. A condition of their importation was that a blood sample be taken from each horse during pre-export quarantine. On 8 August, after arrival in Australia, blood samples were again taken from the horses that entered Eastern Creek and had originated in the United States, the United Kingdom and Ireland. Blood samples were taken from the Japanese horses at Eastern Creek and Spotswood, and from the US horses at Spotswood on 13 August.¹

After Encosta De Lago noticeably started coughing on 17 August 2007, further blood samples were taken and qPCR tests were conducted at intervals throughout August and September at both Eastern Creek and Spotswood.

The samples taken during post-arrival quarantine were delivered to the Australian Animal Health Laboratory, the exotic and emergency animal disease laboratory operated by the Commonwealth Scientific and Industrial Research Organisation. The laboratory also holds the national serum bank. It is a world reference and OIE laboratory for various diseases but not equine influenza. Before August 2007 the laboratory had had only limited experience of testing for equine influenza.²

12.2 Tests by three laboratories

Dr James Watson, a veterinary investigation leader at the Animal Health Laboratory, gave valuable assistance to the Inquiry, consulting from time to time with Dr Richard Newton, who also applied his considerable expertise to solving the difficult scientific questions that arose. Dr Watson gave evidence of numerous tests that the laboratory had done on the samples of blood and nasal mucus taken while the imported horses were at Eastern Creek and Spotswood Quarantine Stations.

¹ CI.0001.046.0018.

² T3891 (Watson).

Gaining access to the blood samples taken from the imported horses while they were in PEQ was not always easy. When the Department of Agriculture, Fisheries and Forestry sought access to the US samples it was advised that no sera were by that time available. The request for access was made some months after the outbreak. The Japanese authorities had retained sera but were not prepared to send them to Australia. The Australian Animal Health Laboratory was able to obtain some of the sera taken from the UK and Irish horses, from the Veterinary Laboratories Agency at Weybridge in Surrey, which acted as a serum bank, in a similar way to the bank operated by the Australian Animal Health Laboratory.³

Japanese authorities cooperated by testing Australian PAQ samples sent to Japan against the Japanese PEQ samples. This was done by the Japanese Racing Association laboratory, under the supervision of Professor Tomio Matsumura. A senior scientist from the Australian Animal Health Laboratory travelled to Japan to observe the tests. The Japanese technology and processes were comparable with those of the Australian laboratory. Professor Matsumura has an international reputation with respect to the laboratory diagnosis of viral diseases in horses.

The first samples taken from the Japanese horses after they had entered Spotswood Quarantine Station were erroneously not sent to Japan for testing. The result was that a month separated the last PEQ samples and the first PAQ samples tested by the Japanese Racing Association for those horses.⁴ The tests were ultimately performed in December 2007.

The UK and Irish PEQ samples left the United Kingdom on 30 October 2007, bound for the Australian Animal Health Laboratory at Geelong.⁵ They arrived in Melbourne on 1 November 2007 and were made the subject of a quarantine order⁶ because no import permit had been presented to AQIS at the time of importation. A quarantine direction was issued to the brokers, Universal Air Cargo Pty Limited.⁷ The necessary documents were not presented to AQIS until 12 November 2007, when the consignment was released from quarantine.⁸

The explanation given for the delay from 1 to 12 November 2007 was that the person responsible for clearance at Universal Air Cargo was on annual leave and his delegate had overlooked doing the task. During the period of the delay, the samples might have been 're-iced' once, although there is no record to that

³ WIT.AAHL.001.0001 at para. 24.

⁴ WIT.AAHL.001.0001 at para. 27.

⁵ WIT.INQ.002.0015.

⁶ WIT.INQ.002.0010.

⁷ WIT.INQ.002.0001 at para. 4.

⁸ WIT.INQ.002.0001 at para. 5.

effect.⁹ The consignment was delivered to the Animal Health Laboratory on 13 November 2007. Prolonged storage at elevated temperatures and repeated freeze–thaw cycles can diminish the antibody level present in serum samples and render the tests less reliable.¹⁰ The laboratory tested the UK and Irish PEQ samples along with the Australian PAQ samples in December 2007.

To increase confidence in the UK and Irish test results achieved by the Animal Health Laboratory tests, in January 2008 Dr Watson took sera from the UK and Irish PEQ samples as well as the Australian PAQ samples to the United Kingdom for re-testing by the Animal Health Trust in Newmarket. The Animal Health Trust was able to obtain further samples of the PEQ sera for the UK and Irish horses from the Veterinary Laboratories Agency and test them with the sera Dr Watson had brought. The Animal Health Trust is an OIE reference laboratory for equine influenza, and Dr Newton is an acknowledged expert on the disease.

Dr Watson prepared a table that summarised the results of the sera testing conducted by the Australian Animal Health Laboratory, the Japanese Racing Association and the Animal Health Trust.¹¹

12.3 The types of tests

The serological quantitative antibody test known as haemagglutination inhibition was the principal test the three laboratories conducted on the samples.¹² It can detect the presence of antibodies to the equine influenza virus. When mixed with red blood cells, influenza viruses cause the blood cells to agglutinate, or clump together. Antibodies present in serum samples (from horses determined immune by the HI test) inhibit the agglutination of red blood cells by binding to the equine influenza virus.

In the HI test, serial doubling dilutions of sera are evaluated for their ability to inhibit haemagglutination using a standard set of reagents for each serum dilution.¹³ The higher the concentration of antibodies to equine influenza in the serum sample, the more that sample can be diluted and still inhibit red cell agglutination, which is reported as a higher ‘antibody titre’. A fourfold increase in titre level between two sample dates, as measured by an HI test, satisfies the definition of sero-conversion. An increased titre level of this magnitude would most likely be caused by the presence of active infection in the animal tested

⁹ WIT.INQ.002.0001 at para. 9.

¹⁰ WIT.AAHL.001.0001 at para. 25.

¹¹ WIT.AAHL.001.0244.

¹² AHT.0001.001.0001 at 0003.

¹³ AHT.0001.001.0001 at 0004.

between the first and second date that the blood samples were taken; it could also be a response to recent vaccination.¹⁴

12.4 Results

12.4.1 Japanese horses at Spotswood

PEQ samples from the Japanese horses that entered Spotswood were taken on 17–18 and 24–25 July 2007. They entered Spotswood on 8 August but did not have blood samples taken until 13 August.

According to the Japanese Racing Association tests, seven of the nine horses from Japan had sero-converted between their PEQ samples taken on 24–25 July and their PAQ samples taken on 24 August.¹⁵ The two horses that did not show evidence of sero-conversion were TH Dancer and Black Hawk.¹⁶

The tests conducted in PAQ can shed some light on when the seven horses might have been infectious between 24–25 July and 24 August. Only one of the seven horses, Jungle Pocket, sero-converted between those dates on the Japanese Racing Association tests; both the Animal Health Trust and the Australian Animal Health Laboratory confirmed that he had sero-converted between 13 and 24 August.¹⁷ These results are consistent with the stallion's clinical presentation. Jungle Pocket had an elevated temperature on arrival at Spotswood and was treated for some days by a private veterinarian, Dr Meredith Flash.¹⁸ A second horse, Zenno Rob Roy, sero-converted between 13 and 24 August according to the Australian Animal Health Laboratory (but not the Animal Health Trust) results. If the Animal Health Laboratory results are correct, then Zenno Rob Roy was in the same category as Jungle Pocket.¹⁹

The other five Japanese horses that entered Spotswood (Orchard Oasis, Acoustics, Western World, Full of Laughter and Royal Successor) did not exhibit any change in titre level after 13 August 2007. Dr Newton interpreted those results to mean that these five horses were unlikely to have remained infectious by 13 August 2007.²⁰ By contrast, Jungle Pocket, and possibly Zenno Rob Roy, continued to be infectious between 13 and 24 August 2007.

¹⁴ AHT.0001.001.0001 at 0009.

¹⁵ AHT.0001.001.0001 at 0009.

¹⁶ WIT.AAHL.001.0244 at 0251; WIT.AAHL.001.0244 at 0254.

¹⁷ AHT.0001.001.0001 at 0009.

¹⁸ WIT.FEC.001.0001.

¹⁹ T4201 (Newton).

²⁰ AHT.0001.001.0001 at 0009.

The change in titre levels for the Japanese horses could not be explained by vaccination close to the time of the PEQ sampling on 24–25 July 2007.²¹

12.4.2 Japanese horses at Eastern Creek

Four horses imported from Japan entered Eastern Creek Quarantine Station on 8 August 2007 but did not have blood tests taken until 13 August. According to the Japanese Racing Association tests, one of the horses, Snitzel, sero-converted between PEQ samples taken on 24–25 July 2007 and PAQ samples taken on 13 August.²² Tests by the Australian Animal Health Laboratory (but not those by the Animal Health Trust) on the PAQ samples demonstrated sero-conversion by Snitzel between 13 and 27 August.²³

Rock of Gibraltar apparently sero-converted between PAQ samples collected on 13 and 27 August.²⁴ There was no evidence of sero-conversion by the other two Japanese horses at Eastern Creek. The sero-conversions for Snitzel and Rock of Gibraltar could not be explained by recent vaccination because their most recent vaccinations were on 25 May and 9 April 2007 respectively.²⁵

12.4.3 UK horses at Eastern Creek

Five of the 22 UK horses that entered Eastern Creek Quarantine Station sero-converted for one or both H3N8 antigens across the sera of both PEQ and PAQ samples. Three of the five horses (Librettist, Wells High Class and Jorrit fan Stal Redia) also showed sero-conversion to the H7N7 antigen Prague/56. That strain is no longer believed to circulate naturally in horse populations anywhere in the world, but it is still included in vaccines. Logically, therefore, the H7N7 sero-conversion in the three horses could have been induced only by recent vaccination. The vaccine histories of the three horses was of vaccination on 14 July (Librettist) and 11 July (Wells High Class and Jorrit fan Stal Redia) 2007. Recent vaccination is the most likely explanation for the sero-conversion to both H7N7 and H3N8 antigens in these horses.²⁶

Only two horses (Doringcourt and Dubai Destination) sero-converted to H3N8 in the absence of sero-conversion to H7N7, and these sero-conversions appeared from samples taken after they entered PAQ, between 27 August and

²¹ AHT.0001.001.0001 at 0009.

²² AHT.0001.001.0001 at 0010.

²³ AHT.0001.001.0001 at 0010.

²⁴ AHT.0001.001.0001 at 0010.

²⁵ CI.0001.046.0003.

²⁶ AHT.0001.001.0001 at 0011–0012.

7 September 2007, suggesting that these were true infections later in the outbreak.²⁷

Country Reel exhibited a fourfold increase in titre between the first and third samples, taken on 11–17 July, 8 August and 27 August 2007. Dr Newton was cautious about whether this horse was actually infected.²⁸ He had been vaccinated on 14 July, the date he began PEQ. Dr Newton's view was that titre levels usually increase more rapidly than had occurred in this horse. The increases in titre levels were probably associated with his recent vaccination.

12.4.4 US horses at Spotswood

The 18 horses imported from the United States entered Spotswood Quarantine Station on 11 August 2007, and blood tests were done on 13 August. None of these horses sero-converted.²⁹

All the horses had moderate to high HI antibody levels to H3N8, implying that there were no obvious sentinels that would develop overt signs of disease and shed large amounts of virus by coughing.³⁰

12.4.5 US horses at Eastern Creek

Fox & Firkin, one of eight US horses that entered Eastern Creek on 3 or 7 August 2007, showed evidence of sero-conversion. The tests pointed to sero-conversion between samples taken on 13 August and 20 August 2007, there being a relatively low level of antibody in the first sample, consistent with the vaccine history provided, and a consequent high susceptibility to infection. It is possible that Fox & Firkin had a relatively low residual immunity, which acted to amplify the spread of the equine influenza virus in the early part of the outbreak.

Earlier tests performed by the Australian Animal Health Laboratory suggest sero-conversion to the Sydney/07 antigen for samples taken between 27 August and 7 September 2007 for Fox & Firkin and Henny Hughes, although these results were not confirmed by the Animal Health Trust or by the Animal Health Laboratory (using the Moulten/98 antigen).³¹ Fox & Firkin's PEQ samples were not available, so the horse could have had an active infection on entering PAQ. The low titre levels on 13 August, however, and other evidence associated with the Japanese horses make it unlikely that Fox & Firkin carried

²⁷ AHT.0001.001.0001 at 0012.

²⁸ T4177–T4178.

²⁹ The Animal Health Trust and Australian Animal Health Laboratory tests were consistent.

³⁰ AHT.0001.001.0001 at 0008–0009.

³¹ AHT.0001.001.0001 at 0012–0013.

an active infection into Eastern Creek Quarantine Station. It is more likely that the stallion was infected after entering PAQ.

12.4.6 Irish horses at Eastern Creek

Nine of the 18 Irish horses that entered Eastern Creek Quarantine Station on 7 August 2007 demonstrated sero-conversion for one H3N8 antigen (Ad Valorem and Danehill Dancer) or both (Antonius Pius, Aussie Rules, Encosta De Lago, Golden Snake, Holy Roman Emperor, Oratorio and Sharmadal). No sero-conversions were evident between PEQ samples (11–17 July 2007) and PAQ samples (8 August 2007) in any of the horses tested by the Animal Health Trust. The Animal Health Trust results were not wholly consistent with those from tests conducted previously by the Australian Animal Health Laboratory, which did indicate some sero-conversion between PEQ and PAQ. The results from the Animal Health Laboratory were, however, not wholly reliable: there were questions about them because the PEQ samples used had been delayed in transit from the Veterinary Laboratories Agency in the United Kingdom.

The earliest sero-conversion evident to the Animal Health Trust was in Encosta De Lago, between samples collected on 13 and 20 August 2007. No other Irish horses demonstrated this early sero-conversion. The PEQ and immediately post-PAQ samples from Encosta De Lago were notable for their very low titre levels, which would be consistent with high susceptibility to infection and a high probability of shedding relatively large amounts of virus. This horse could have caused transmission to adjacent horses, or via contaminated fomites. This would be consistent with Encosta De Lagos acting as a sentinel, or amplifier of infection, and having encountered the infection during PAQ, rather than being the animal that introduced the infection. The fact that Encosta De Lago did not test positive on qPCR testing of samples taken on or after 20 August 2007 is consistent with the horse having been infected soon after arrival in PAQ and having cleared the infection before sampling began.³²

12.5 The relationship between the Sydney/07, Ibaraki/07 and Pennsylvania/07 strains

New strains of the equine influenza virus are created as mutations of the virus. During virus replication changes can occur in the nucleotide sequence of the haemagglutinin gene. Accumulated mutations in the gene result in significant antigenic differences (antigenic drift) between different virus strains.

³² AHT.0001.001.0001 at 0010–0011.

Dr Newton's laboratory is a world leader in tracing the evolution of different strains of the equine influenza virus.

A phylogenetic tree for H3N8 was received in evidence; it is presented as Figure 2.1 in this report.³³ It shows the changes in the H3N8 strains of the equine influenza virus as it has mutated over time and is based on an analysis of differences between the nucleotide sequences of the HA1 gene of the virus. Viruses with identical HA1 sequences appear vertically adjacent to one another on the tree, with no horizontal distance between them. Horizontal distances in the tree represent accumulated nucleotide differences. In the phylogenetic tree presented by Dr Newton the vertical lines on the right represent the various lineages of H3N8.

The Sydney/07, Ibaraki/07 and Pennsylvania/07 strains appear as a closely related cluster in the middle of the 'variant American isolates' lineage of the tree. The three viruses are identical at every amino acid residue of HA1, although there is one non-coding (that is, the difference does not code for a change in amino acid) nucleotide difference between Pennsylvania/07 and the other two strains, which have identical nucleotide sequence alignments.

It is not possible, solely on the basis of phylogeny, to state the precise order of the viruses' mutation and provenance. Sydney/07 and Ibaraki/07 exhibit identical nucleotide as well as amino acid sequence alignments and so can be considered identical in terms of HA1, which is one of the most variable regions of the genome of influenza viruses.

The results strongly suggest that Sydney/07 and Ibaraki/07 are very closely related viruses being isolated within a very short period, such that accumulated sequence changes did not have time to develop. The single, non-coding nucleotide sequence change from Sydney/07 and Ibaraki/07 to Pennsylvania/07 is consistent with, but not definitive proof of, a closely related virus circulating in North America as the source of the Japanese and Australian viruses. It is likely therefore that there was no export of equine influenza from Japan or Australia to the United States to account for the small change seen in the Pennsylvania/07 virus.

³³ AHT.0001.001.0080.

12.6 The relationship between the virus strains in Australia

The Australian Animal Health Laboratory conducted sequencing of completed genes from a range of isolates taken from the Australian outbreak. The HA1 segment of the viral genome for the virus isolated from samples taken at Centennial Parklands and Eastern Creek Quarantine Station was compared with that from samples taken at Warwick in Queensland. The derived amino acid sequences were identical for the Centennial Parklands and Eastern Creek isolates and differ in only one amino acid from those for Warwick. Six later isolates from a range of locations in New South Wales and Queensland were either identical to the Centennial Parklands isolate or differed by only a single amino acid.³⁴ Dr Watson gave evidence that these results were consistent with there having been only one strain of the virus in the Australian outbreak.³⁵

12.7 Transmission of the virus into Australia despite quarantine

The only credible scientific explanation for the introduction of equine influenza into Australia is that the virus came with imported horses. On the scientific testing, only the horses imported from Japan would appear to have had an active virus during PEQ and transportation, and on entering PAQ. Dr Newton concluded that the serological results and accompanying data strongly suggested that the most likely source of the Australian equine influenza infection in August 2007 was infected horses imported from Japan, rather than the United States.³⁶ No other expert witness disagreed with him.

Of importance to this conclusion is the evidence that there was infection at both Eastern Creek and Spotswood Quarantine Stations. Both infections were associated with the importation of a single consignment of horses from Japan, some of the horses going to Eastern Creek and the others to Spotswood. In both stations, horses from Japan exhibited evidence of recent infection. It is possible that active infection was also present among the horses during their air transport to Australia, producing conditions for carriage of infection and further transmission, which for their effect were ultimately dependent on the susceptibility of horses in close contact with the contaminated horses. Eastern Creek had susceptible horses—Encosta De Lago and Fox & Firkin—close to Rock of Gibraltar and Stravinsky, horses imported from Japan.

³⁴ WIT.AAHL.001.0001 at paras 21–22.

³⁵ T3896.

³⁶ AHT.0001.001.0001 at 0022–0023.

The results taken, together with those from some of the Japanese horses that went to Spotswood, indicate that Snitzel was a possible source of equine influenza virus while in quarantine at Eastern Creek. The possibility of physical carriage of the virus into Eastern Creek by any of the Japanese horses cannot be excluded. On the whole of the evidence, it appears likely that at least one horse from Japan acted as the primary source of infection at Eastern Creek.³⁷

Stravinsky had no elevated titre levels in PEQ or PAQ. Five days after entry into quarantine at Eastern Creek, Rock of Gibraltar still had the same titre level as in PEQ³⁸; it was only after 13 August that his titre levels started to increase. Dr Newton's evidence is consistent with the possibility that Rock of Gibraltar and Stravinsky had not been infected but carried the virus on them or their equipment following the air transport, and came to infect Encosta De Lago on arrival at Eastern Creek.³⁹ But Encosta De Lago's failure to show symptoms until 17 August is inconsistent with that. The virus can last for up to 48 hours outside a host equine, and the latency period for the disease is up to five days after infection.⁴⁰ Assuming that these maximum periods applied, I am of the view (on the scientific evidence) that Encosta De Lago would have shown clinical signs by 15 August if infected by fomites brought into the Quarantine Station on 8 August and that they would have infected him by 10 August 2007 at the latest.

That leads me to conclude that transmission of the virus into Eastern Creek Quarantine Station was probably by an infected horse, as opposed to physical transmission of the disease. The sera results suggest that, of the Japanese horses in Eastern Creek, only Snitzel was infected before PAQ and could have been actively infected at the time of entering the Quarantine Station.⁴¹ Snitzel had sero-converted at some time between when samples were taken in PEQ and those taken in PAQ on 13 August. The period from 8 to 13 August is probably too short a time for that sero-conversion to take place. This led Dr Newton to conclude that Snitzel was probably infected several days before 13 August 2007—that is, before he travelled to Australia.⁴²

Further explanation would, however, be needed for the passage of the disease from Snitzel in row C of the stables at Eastern Creek to row E, where Encosta De Lago and Rock of Gibraltar were. Some improbably elaborate theories for

³⁷ AHT.0001.001.0001 at 0010.

³⁸ WIT.AAHL.001.0244 at 0246.

³⁹ T4208.

⁴⁰ WIT.INQ.003.0001 at 0015.

⁴¹ T4203–T4206 (Newton).

⁴² T4206.

transmission from row C to row E were not favoured by Dr Newton.⁴³ Transmission of the virus to Encosta De Lago could have occurred after arrival and during early PAQ by Rock of Gibraltar after he became infectious. How Rock of Gibraltar became infected is not clear, though. Dr Newton considered that the stallion might have been infected during the flight. He thought Rock of Gibraltar the most likely infector of Encosta De Lago.⁴⁴ A transmission of the virus to Encosta De Lago from Rock of Gibraltar was more probable than fomite-to-fomite transmission between Mr Bradley Bowd, who had contact with Snitzel, and the Coolmore farrier who worked on Encosta De Lago.⁴⁵

Dr Newton's evidence was not only uncontradicted: it was also based in rigorous science. He is one of the three leading experts in the field, if not *the* leading expert. But even he cannot answer with absolute certainty all the questions that must be considered in order to identify the carrier of equine influenza into Australia. Dr Newton did, however, answer each of those questions with a sufficient degree of assurance to enable me, with the benefit of the other evidence, which by and large tends to exclude other possibilities, to conclude that it is more likely than not that one or more of the shuttle stallions that were brought to Australia from Japan in August 2007 and entered Eastern Creek Quarantine Station brought equine influenza with them.

Seven of the horses from Japan that entered Spotswood Quarantine Station had elevated titre levels between PEQ and the PAQ tests on 24 August 2007. Five of them were no longer actively infectious after 13 August 2007 since the tests within PAQ for those horses showed constant titre levels after that date. It is possible that any of the seven horses from Japan that had shown a sero-conversion between PEQ and PAQ were still actively infectious on 8 August 2007, when they entered quarantine at Spotswood. As with Eastern Creek, it is possible that any one of the nine horses from Japan that went to Spotswood could have physically carried the virus into the Quarantine Station even if it or any of them were not actively infected. Only Jungle Pocket and Zenno Rob Roy were still actively infectious after 13 August 2007. This suggests that they may have been infected at a later time than the five Japanese mares that sero-converted and entered Spotswood, but their infection could still have occurred while they were in PEQ. Dr Newton concluded that the results for Jungle Pocket and Zenno Rob Roy (and Snitzel) were consistent with the virus's appearance in PEQ and that the virus may well have been present and active during the air transport to Australia.⁴⁶

⁴³ AHT.0001.001.0001 at 0014.

⁴⁴ T4191.

⁴⁵ T4316–T4317.

⁴⁶ T4201–T4202.

Counsel representing the Australian Racing Board Limited, Thoroughbred Breeders Australia Ltd, Aushorse Ltd and the Australian Harness Racing Council Inc.⁴⁷ and counsel for International Racehorse Transport Pty Ltd⁴⁸ submitted that I should find that the five mares from Japan that entered Spotswood (Orchard Oasis, Acoustics, Western World, Full of Laughter and Royal Successor) were probably the only horses that were infected during PEQ and carried the virus en route to and in Australia. It was submitted that the mares sero-converted between PEQ and PAQ, had all undergone PEQ together in Japan, and had ceased mounting an immune response by 13 August, after which their titre levels remained constant. It was further submitted that their sero-conversion time meant they were infected earlier than other horses (Snitzel, Jungle Pocket and Zenno Rob Roy) that sero-converted.

The evidence does not allow me to accept that submission and exclude the three stallions (Snitzel, Jungle Pocket and Zenno Rob Roy) as also being infected in PEQ and en route to and in Australia. I have already canvassed some of the evidence that makes it probable that Snitzel was infected when he entered Eastern Creek Quarantine Station. Snitzel, Jungle Pocket and Zenno Rob Roy underwent PEQ together at a different quarantine station from the one where the mares were and sero-converted between PEQ and PAQ. They did continue to mount an immune response after 13 August, but that did not exclude the possibility that they were infected before the start of their journey to Australia. Dr Newton said the scientific testing did not permit an accurate pinpointing of the time by which these horses were infected⁴⁹. On the available evidence he was, however, of the view that the three stallions were infected in the first few days of August 2007—that is, before their transport to Australia on 7 August). He opined that the virus ‘may well’ have been present in PEQ and active during transport to Australia.⁵⁰

One thing that suggests the five mares might not have introduced the disease into Australia was that by 13 August they were no longer infectious. When they arrived on 8 August they were, at most, at the end of their infectious period. Because samples were not taken on or just before 8 August, it is impossible to say if they were still infectious when they entered Spotswood Quarantine Station.

There are other factors suggesting that the three stallions were probably infectious before transport and when they arrived in Australia. Zenno Rob Roy did not sero-convert after 13 August on the Animal Health Trust results (but did on one of the three Australian Animal Health Laboratory results). If the

⁴⁷ SUBS.ARB.001.0001 at para. 25.

⁴⁸ T4511; SUBS.IRT.001.0001.

⁴⁹ T4203.

⁵⁰ T4201–T4202, T4206.

Animal Health Trust results are preferred, then his sera results were in substance the same as those for the five mares. Jungle Pocket presented on 8 August at PAQ with an elevated temperature, a possible symptom of infection with the virus in PEQ, which was too early to have been manifest if he had been infected in transit. Snitzel had sero-converted by 13 August, which is probably too early for him to have mounted an immune response of that magnitude if he was infected in transit to Australia on 7 August.

I conclude that Snitzel was probably infected with equine influenza at the time he entered Eastern Creek Quarantine Station and that some or all of the five mares and two of the stallions (Jungle Pocket and Zenno Rob Roy) that entered Spotswood Quarantine Station were probably infected with equine influenza when they entered Australia.

13 Possible explanations for the escape of equine influenza into the general horse population

13.1 The infected Japanese consignment

The serological and epidemiological evidence points to the infected horses imported from Japan rather than from the United States as the likely cause of the outbreak of equine influenza in this country. The best explanation for the presence of horses infected with equine influenza in Eastern Creek and Spotswood Quarantine Stations at the same time is that a number of the horses in the consignment of 13 horses from Japan on 8 August 2007 were infected.

That conclusion is consistent with the facts that the horses in question underwent pre-export quarantine at premises on the island of Hokkaido between 17 July and 6 August 2007 and that there were subsequently a number of notifications to the OIE of outbreaks of equine influenza on that island from as early as 14 August 2007.

In seeking explanations for the escape of equine influenza into the general horse population in Australia, the events on and after 8 August 2007 are the most relevant.

13.2 Possible modes of escape

13.2.1 Directly from the airports

Contamination by airborne spread from an airport can be rejected as a likely cause of the equine influenza outbreak in Australia in August 2007. The Japanese horses were not exhibiting clinical signs of infection when they arrived. If any of them were shedding virus it was unlikely to be doing so in any significant amount. At Sydney (Kingsford Smith) Airport on the afternoon of 8 August the ambient temperature was 25.5°C, the relative humidity was 22 per cent and the sky was fairly clear. Such conditions would have been unlikely to have permitted the survival of the virus for very long. The part of the airport where the horses were unloaded from the aircraft and then loaded into vehicles is inside the airport perimeter and some distance from industrial

and residential areas. The area at Tullamarine Airport where horses were transferred is also distant from such areas.

There was no evidence that in the areas adjacent to the airports there were horses that were likely to be infected as a result of the airborne spread of the virus. Airborne viruses travel furthest over unbroken terrain (such as water), and the structures at the airports would probably create turbulence that would prevent an airborne spread.¹ No horses in the general horse population of Victoria became infected. This confirms the low likelihood of the escape of the virus from Tullamarine. Taken together, these factors make it most unlikely that airborne spread from either airport was the source of the outbreak.

It is unlikely that a naive horse in the population that attended the Maitland event on 17, 18 and 19 August had been contaminated on 8 or 9 August. Such a horse would have had to have been infected by 13 August (given the likely incubation period) and would have remained infectious for up to 10 days. Clinical signs of the disease would, in all likelihood, have become evident by 13 August.² If the horse were to have competed in the Maitland event it would have had to undergo the necessary preparation and training, and the presence of infection would have made it most unlikely that the horse could have done that without the disease being noticed. Furthermore, such a horse would probably have had contact with other horses, which themselves would have become infected and began to display signs of ill-health.

There is no evidence of equine influenza infection in the general horse population consistent with this scenario. Once equine influenza had been transmitted into the general horse population after the Maitland event, there was a rapid spread of the disease in that population. The absence of such a spread before the Maitland event suggests that the virus was introduced into the general horse population at a time much closer to 18 August 2007 than if it had escaped from the airports on 8 August 2007.³ The early cases of infection following the Maitland event were all among horses that had been at the polocrosse ground on 18 August.

Contamination from the airports by means of contaminated persons, equipment or vehicles can be reasonably excluded for similar reasons. Further, the evidence indicates that none of the people and equipment that did have or were likely to have had contact with the infected horses subsequently had contact with a horse in the general horse population that became infected before 21 August. Among these people were Dr Yan Hee Song; the transport drivers Mr Edwin Clarke of the Livestock Transport Group, Mr Lloyd Baxter of

¹ WIT.INQ.003.0001 at 0014.

² WIT.INQ.003.0001 at 0015.

³ WIT.INQ.003.0001 at 0016.

JG Goldner, Mr Tony Hore of Sydney Horse Transport and Mr Craig Atkinson of Coolmore; Mr Tom Magnier and Mr Jim Carey of Coolmore; Mr John Sunderland and Mr Stuart McKay of Darley Stud; Mr Martin Story and Mr Brad Bowd of Arrowfield; Mr Julian Cornter of International Racehorse Transport; the Japanese veterinarian Dr Nobuo Tsunoda and the grooms Mr Masayuki Noomote and Mr Kazushi Kudo; and the grooms Mr 'Basil' Keane of Coolmore and Mr 'Snowy' McDonald of International Racehorse Transport. Specifically, the evidence of the movements of the truck drivers does not establish that any horse transported in their vehicles in the immediate period after 8 August was infected at any time before the Maitland event.

It is conceivable that some of the evidence relating to these affairs is incomplete or inaccurate, and that contamination occurred in one of these ways. Two things suggest, however, that that is not the case. First, the inquiries and examinations carried out did not identify any respects in which the evidence was incomplete or inaccurate. Secondly, and more convincingly, the infection cycle of the virus and the absence of any reports of infected horses from the general horse population before the Maitland event make it unlikely that any horse could have become infected on 8 or 9 August because such an occurrence is unlikely to have passed unnoticed and unreported.

13.2.2 Airborne spread from Eastern Creek or Spotswood

Airborne spread of equine influenza from Eastern Creek or Spotswood Quarantine Stations can also be excluded as a likely cause of the virus's escape. Such a cause may be available to explain the movement of infection from one place to another when there is no other epidemiological link, but that is not the case here.

At Eastern Creek, the first clinical signs of the illness that were directly attributable to a horse diagnosed with equine influenza were recorded at 10.00 am on 17 August 2007, when Dr Gregory Nash described Encosta De Lago as having 'a slight cough'. Before then, it is unlikely that any horse was shedding sufficient amounts of the virus to allow for airborne spread. At Spotswood there were no amplifier horses who were likely to have been shedding sufficient quantities of the virus to produce airborne spread and infection of horses outside the Quarantine Station.

The fact that none of the US horses at Spotswood, and only a small number of the 52 horses at Eastern Creek, became infected is not consistent with the infection of a horse outside the Quarantine Station by airborne spread when those within it were not.

13.2.3 Infected dogs or birds at Eastern Creek or Spotswood

One possibility examined in the evidence was of a dog or bird having become infected at one of the Quarantine Stations and then infecting an equine outside of them. Such a scenario can also be excluded.

Experts were asked about the possible transmission of equine influenza from horse to dog. Instances of this mode of transmission have been reported.⁴ They have occurred where dogs have had close contact with naive horses in the acute stages of infection. The relatively low levels of shedding in Eastern Creek and Spotswood of vaccinated horses and the separation of the dogs there from the horses, made transmission to the former unlikely.⁵ There have been no reported cases of the transmission by dogs of the disease to horses.⁶ The prospect of transmission from dog to horse is scientifically questionable because the evidence suggests that after infecting a dog the virus becomes genetically altered, making subsequent infection of horses highly unlikely.⁷

The proposition that birds might have been a source of infection outside Eastern Creek was explored with Dr Richard Newton and his colleagues when they gave evidence. They said that there was no scientifically proved instance of a horse infecting a bird with equine influenza, and a bird then infecting a horse. They also considered that close proximity of a bird and horse would be necessary before a vector of this kind could mechanically transmit the disease. In their view, there was unlikely to be the necessary proximity between horse and bird in a quarantine station. Dr Newton also thought a bird unlikely to be able to transfer mechanically the virus into the respiratory tract of a horse, to cause infection. He concluded that transmission of the virus by birds was improbable.⁸

Other circumstances reinforce the improbability of avian transmission from Eastern Creek to the general horse population. Before 17 August 2007 no horses at the Quarantine Station shed the virus in any substantial quantities. A bird was unlikely to become infected or mechanically to transfer the disease before that date. By then it was too late to be the source of infection for the horse or horses that became ill at the Maitland event on the following day.

⁴ WIT.REC.001.0001; WIT.REC.002.0001.

⁵ WIT.INQ.008.0001 at 0003–0004.

⁶ T4196–T4197; T4263–T4265.

⁷ WIT.INQ.008.0001 at 0004.

⁸ T4198–T4199.

13.2.4 Contact with people, equipment or materials associated with managing the horses

It is unlikely that there was an escape of the virus from Spotswood Quarantine Station on the person, clothing or equipment of a groom, veterinarian, farrier or someone else who had contact with horses and then left the Quarantine Station without adequately cleaning or disinfecting themselves, clothing and equipment. The practice of showering out was observed at Spotswood. The 24-hour, seven-days-a-week presence of quarantine officers resulted in a high level of compliance with the biosecurity procedures there. In no cases was the disease transmitted from the Japanese horses to the US horses in the Quarantine Station. Only Jungle Pocket, and perhaps Zenno Rob Roy, were still actively infectious after 13 August 2007. No horse at Spotswood acted as an amplifier of the disease in the way that some horses at Eastern Creek did.

It is significant that the amino acid sequences of the virus isolates from Centennial Parklands and Eastern Creek were identical. This provided an important scientific link between an escape of the virus from Eastern Creek and subsequent release into the general horse population.⁹ Spotswood is geographically remote from the horses that competed at the Maitland event. All these factors make it highly unlikely that the virus escaped from Spotswood Quarantine Station.

What is most likely, is that the virus escaped from Eastern Creek Quarantine Station on the person, clothing or equipment of a groom, veterinarian, farrier, or someone else who had contact with the horses and then left the Quarantine Station without adequately cleaning or disinfecting himself or herself, or his or her clothing or equipment. The timing of the Maitland event and the emergence of clinical signs in Eastern Creek strongly suggest that escape of the virus occurred between 10 and 15 August 2007. The shortest latency period would require infection by 15 August, and probably even earlier, for a horse or horses to be shedding and showing other signs of the disease on 18 August 2007 at Maitland. The small amount of virus resulting from object or person to horse transmission is likely to make the incubation period longer.

The evidence does not allow me to make a more specific finding as to the most likely means of escape of the virus from the Quarantine Station. It is possible to say, though, by reason of the likely timing of any escape, that one or more of the veterinarians and farriers might have unintentionally carried the virus out of the station. It is not possible, however, to identify any particular one of these, or any other person who in fact did so.

⁹ WIT.INQ.003.0001 at 0019.

After 10 August various of the horses at Eastern Creek were attended by their grooms, two farriers and four veterinarians. Their movements in and out of the Quarantine Station and their activities in the equine enclosure were not supervised or monitored by anyone from AQIS or by any one else residing in the equine enclosure during the period of the intake.

Recommendation

I recommend that the operating procedures require that the duties of any people responsible for maintaining 24 hour security at a quarantine station (whether they be AQIS officers or private contractors) are recorded in writing and that those people have received training in relation to biosecurity risks sufficient to instil an appreciation of such acts or circumstances as might give rise to biosecurity risks.

The evidence enables me to conclude the following in relation to these people:

- (a) A number of the grooms—especially those from Coolmore and Arrowfield—had physical contact with a horse or horses likely to be shedding the virus on and after 10 August.
- (b) On occasions some of the grooms left the Quarantine Station without showering out and changing their clothes. I make that finding notwithstanding the fact that no groom who gave evidence (other than Ms Pauline Cushing and Ms Kim Maguire) made admissions about that. I am unable to find that any particular groom left the Quarantine Station without showering and changing after having had contact with a particular horse that at the time was shedding the virus.
- (c) On 13 August the farrier Mr Scott Barlow attended to horses in the Quarantine Station and did not clean or disinfect his tools and apron before leaving.
- (d) On 14 August the farrier Mr Brad Hinze attended the Coolmore horses (including Rock of Gibraltar) in the Quarantine Station and left the station without showering or changing his clothes or cleaning and disinfecting his tools and apron.
- (e) Various private veterinarians attended horses in the Quarantine Station on and after 10 August. Among them were Dr Denis Crowley (last visit on 10 August), Dr John Bruyn (14 August), Dr James Whitfeld (14 August) and Dr Andrew Argyle (twice on each of 10 and 11 August). None of them showered out before leaving the station. Drs Bruyn, Whitfeld and Argyle said they wore overalls and gumboots that they removed before they left the station and that they washed their hands. Dr Bruyn and Dr Whitfeld said they also washed their faces.

The evidence of each of these witnesses or groups of witnesses was tested. None of the grooms admitted to any contact with a horse outside the Quarantine Station. The movements of the veterinarians and farriers were also carefully examined. Although some had contact with other horses on the day they attended the Quarantine Station and in the days immediately thereafter—for example, Mr Barlow on 13 August and the following days, Mr Hinze on 14 August and the following days, Dr Bruyn on 14 August, Dr Whitfeld on 14 August, and Dr Argyle on 10 and 11 August—the evidence does not suggest that any of the horses that they attended outside Eastern Creek became infected before the Maitland event.

The only other person who had contact with the horses on and after 10 August and before 20 August was Dr Phillip Widders, that is, on 13 August, when he took blood from the Japanese horses. The evidence does not identify any other AQIS or non-AQIS personnel who are likely to have had access to the horses in this period. Dr Widders said that he had no contact with any horses outside the Quarantine Station.

The Inquiry was not able to identify a person or piece of equipment leaving Eastern Creek Quarantine Station and infecting a specific horse in the general population. The Randwick Equine Centre and Dr Argyle contended that, if an exhaustive inquiry has been unable to prove the means of transmission, on balance it was more likely that there was an alternative means of transmission. This alternative means of transmission, they contended, was by birds or dogs with access to or present at Eastern Creek.¹⁰ I do not favour such a conclusion because of its unproved scientific basis. That a bird or dog can be a source of infection of horses has not been scientifically established. Timing and the other factors that I have considered also count against such a hypothesis. It is possible, I recognise, that people might have motives for concealing evidence that could implicate those responsible for transmission of the disease out of Eastern Creek Quarantine Station. That could well be the explanation for the absence of evidence, despite strenuous efforts to find it, of the identity of the person responsible.

Recommendation

I recommend that the operating procedures require, as a condition of entry for all non-AQIS personnel to a quarantine station, that each person report any suspected breach (by that or any other person) of quarantine procedures in the quarantine station and that a person may be excluded from entry to a quarantine station in the event of a breach of such procedures by that person or in the event of a failure of that person to report any suspected breach.

¹⁰ T4583.

I find that the most likely way that the virus entered the general horse population is by its escape from infected horses at Eastern Creek Quarantine Station on a contaminated person or persons or equipment leaving the Quarantine Station, and coming into contact with a horse. The contaminated person or persons, or equipment, are most likely to have been associated with those caring for the horses while they were in quarantine at Eastern Creek.

14 Matters influencing the final recommendations

I have listed my recommendations in the summary of this report. Some of them are refinements of those that I earlier made available as exposure recommendations. Some others have been changed, or in a few instances withdrawn. Most of the recommendations are not only self-explanatory, but also, I think, inevitable on the basis of the evidence before me.

In this chapter I need deal with only four of them and some submissions made in respect of them. I do so by explaining:

- (a) why I consider it necessary that there be established, at least for the relatively short term, a position of Inspector General of Horse Importation
- (b) why I recommend that a Senior Executive Service officer of the Department of Agriculture, Fisheries and Forestry be designated as responsible and accountable for the importation of horses but do not recommend that there be a separate section of AQIS established to deal with that importation
- (c) why I make no recommendations in relation to artificial insemination of thoroughbreds
- (d) why the fees charged for the importation and quarantining of horses should be reviewed.

Before doing so, I should record that I am not making recommendations about whether any particular groups of horses, such as thoroughbreds or equestrian event or polo horses, should continue to be vaccinated even after Australia has been declared free of the virus. This was raised by counsel for one of the represented parties and also in a submission of the Australian Veterinary Association, which argued against such vaccination.¹ That submission was responded to by various parties, some arguing for vaccination and some arguing against it.² I do not deal with this subject by way of recommendation one way or the other. First, it is not necessary for me to deal with it to report in accordance with my terms of reference. Secondly, it was not raised before the Inquiry until written submissions were made to me. It had not been the subject

¹ SUBS.AVA.002.0001; SUBS.AVA.003.0001.

² See, for example, T4522–T4523 (Ryan); SUBS.NSW.002.0001; SUBS.QLD.002.0001; SUBS.ARB.002.0001; SUBS.AHIC.003.0001; SUBS.DLYA.002.0001.

of any evidence, expert or lay, that canvassed all of the detailed arguments for and against such vaccination.

I also make no recommendations in relation to the need for more timely or regular communication between the Commonwealth and the states and territories in the event of the suspicion, or fact, of an exotic disease in a quarantine station.³ I consider these matters to be outside my terms of reference. I examined the effectiveness of the response to the outbreak, and the circumstances of the spread of the virus was only relevant for the purpose of identifying the means by which the outbreak occurred, in order to make findings about the circumstances contributing to it.

14.1 The position of Inspector General of Horse Importation

One of the exposure recommendations was for the creation of a position of Inspector General of Horse Importation, the primary function of whom would be to act as an external auditor of quarantine premises (both in Australia and overseas), of the performance of employees of the Commonwealth charged with responsibilities relevant to the importation and quarantining of horses, and of the procedures used in association with that process (here and overseas).

The responses to the recommendation were generally strongly supportive. There was, however, some opposition, and it is convenient to discuss the recommendation first in the context of those submissions.

In its submission the Quarantine and Exports Advisory Council (which was not represented during the Inquiry), although generally supportive of most of the draft recommendations, expressed opposition to the principle of the appointment of an Inspector General of Horse Importation. Its first submission argued that there are many other primary producers making significant contributions to national, economic and social wellbeing. The submission went on to say that, as with horses, the viability of those industries could be susceptible to an incursion of exotic disease. Furthermore, since many of the commodities in question are for consumption, their protection from disease, and therefore the maintenance of the good health of the community is even more important. A compelling case, it was said, could therefore equally be made for an inspector general to be appointed to check on biosecurity in each of those industries.

³ SUBS.NSW.001.0001 at 0002.

In publishing the draft recommendations for the appointment of an Inspector General of Horse Importation, I was conscious that an argument of that kind would be advanced. The difference between horse importation and the importation of other animals and commodities is that there has now been a very serious failure demonstrated in relation to the former. It is that failure that demands redress. It might well be that the community would accept with equanimity, even demand, the appointment of an Inspector General to check on the importation of another risky commodity if, in respect of it, too, there had been a demonstrated failure of the kind that occurred here and with the serious economic and other consequences it produced.

The second argument in opposition, which is related to the first, is that the logical extension of an office of inspector general (or offices of inspectors general) would be of an unduly narrow specialisation and fragmentation of skilled resources within AQIS; it would have the potential to make the management structure more complex, when viewed, it was said, across all of the animals and plants with which AQIS deals. Having heard the evidence and having examined in detail the management structure of AQIS in the course of the Inquiry, I can only respond that it would be difficult to imagine a more complex and dysfunctional structure so far as it relates to horse importation than the one under which the failure occurred. It is already highly fragmented. The skilled resources within it collectively failed to prevent the escape of equine influenza. It is unnecessary, in relation to the deficiencies of current management and staffing, to repeat what I say in a number of places elsewhere in this report. The appointment of an Inspector General of Horse Importation could have no adverse effect on the skills and knowledge of the people, both professional and otherwise, in AQIS. The contrary would be the case. The appointment should greatly improve those skills and knowledge by subjecting staff to an oversight and rigour that have been lacking.

The Quarantine and Exports Advisory Council submission accepts that there should be a strengthening of 'the audit process' but contends that the means by which this would best be achieved should be a matter for consideration by government, having regard not only to my findings but also to the outcome of the broader review by the Quarantine and Biosecurity Review Panel. I have no doubt that the panel, chaired by Mr Roger Beale AO, will make a valuable contribution to the improvement of the performance of both AQIS and Biosecurity Australia. It is quite likely, I think, that such an improvement will, in part at least, require some form of restructuring of both AQIS and Biosecurity Australia. To put a well-qualified, dedicated and independent person with security of tenure outside both of these organisations and to give that person the role and powers I recommend will do nothing to obstruct any such restructuring. It also offers another advantage: it is a proposal that can be implemented immediately. I even provide an outline of the legislation required

to give effect to it. Obvious and urgent remedies, as this one is, should not be postponed.

The Department of Agriculture, Fisheries and Forestry did not provide a direct response to the exposure recommendations concerning the appointment of the Inspector General of Horse Importation, suggesting that the appropriateness of a decision in this regard would be ‘a matter for the government rather than for DAFF’, and that ‘the establishment of an [Inspector General] may not be consistent with government policy for Australian government bodies’.⁴ In general terms, however, the department did submit the following—presumably in opposition to the creation of the role:

- (a) Audit functions need not be completely independent of the organisation being audited.
- (b) Depending upon what will be audited, veterinary qualifications may or may not be necessary.

AQIS has never conducted an audit of the procedures in overseas and Australian quarantine, transport to Australia, and biosecurity at airports. Nor has Biosecurity Australia. An important purpose of my recommendation is independence. The appointment I contemplate would not be answerable to the department: it would be answerable to the Minister.

I did give thought to the possibility that this auditing role could be performed by the Australian National Office of Audit, but after careful consideration I decided against that. Inevitably, the Audit Office would itself need to consult or employ a veterinarian to perform the task. Otherwise it would be dependent on what AQIS or veterinarians in AQIS told it, which is undesirable in the circumstances. Furthermore, the position I have in mind is highly specialised. The appointee will need to travel, sometimes at short notice. He or she will need to possess the necessary expertise to evaluate the efficacy of biosecurity measures in different places and will increase his or her knowledge by actually doing the work on a regular basis. To interpose the Audit Office would also be to introduce another level of reporting and communication.

As to the second matter submitted—about the need for veterinary qualifications—the response I make is that the specialty of the position requires particular qualifications to ensure that the work is carried out effectively. I therefore recommend that the appointee be knowledgeable in equine matters but otherwise possess such qualifications and experience as the Governor-in-Council considers appropriate.

⁴ SUBS.DAFF.003.0001 at para. 20.

The State of New South Wales accepted in principle that there ought to be appropriate audit procedures because systemic failures had had a significant and detrimental effect on biosecurity. It was one of the few other interested parties to express some reservations about the role of an Inspector General of Horse Importation. The first of the reservations was substantially the same ‘floodgates’ argument as the Advisory Council’s—that is, that if the role of the Inspector General of Horse Importation proved useful it might encourage the appointment of inspectors general across a great number of commodities. I have already considered that and need not repeat what I have said about it. A reference was also made to ‘regulatory capture’ in oral submissions. That means, it was said, that an Inspector General might, like a regulator, become too close to the operations. The Inspector General as proposed now will have no regulatory functions. Standing outside AQIS and Biosecurity Australia, he or she will be fully independent of them.

New South Wales did accept that an internal audit function was no longer appropriate for Biosecurity Australia or AQIS. The principle that there should be rigorous independent auditing in one form or another was not in dispute.

The State of Queensland submitted⁵ that there was a wealth of evidence of administrative failures on the part of AQIS. It submitted that a contributor to the failures in administration was the system of ‘matrix management’ and was fully in favour of the exposure recommendations in respect of an Inspector General (as well, incidentally, as a Government Quarantine Veterinarian for Horse Importation, as proposed) because this should confront the problems ‘in a very practical and effective way’.⁶

In its submission the Australian Veterinary Association⁷ supported all the exposure recommendations.

In his oral evidence Dr Conall O’Connell, the Secretary of the Department of Agriculture, Fisheries and Forestry gave qualified support to the notion of the appointment of a person whose role it would be to inspect pre-export quarantine facilities in other countries and to have an inspectorial role in relation to the performance of AQIS and Biosecurity Australia.⁸

In a joint submission the Australian Racing Board Limited, Thoroughbred Breeders Australia Limited, Aushorse Limited and Harness Racing Australia

⁵ SUBS.QLD.001.0001.

⁶ SUBS.QLD.001.0001 at para. 5.3.

⁷ SUBS.AVA.002.0001.

⁸ T4163.

Inc⁹ supported the recommendations with only two, currently immaterial, exceptions.

International Racehorse Transport Pty Limited did not oppose the position, subject only to a qualification that there be consultation with respect to the Inspector General's appointment and duties. It can safely be assumed that the Minister would be able to, and would, consult widely before an appointment is made. The work of the Inspector General would ordinarily involve regular communication with the import agents, owners and other interested parties.

No opposition to the proposal was offered by either Coolmore Stud or Darley Stud, both major importers of shuttle stallions. Similarly, there was no opposition on the part of the Community and Public Sector Union; Randwick Equine Centre and Dr Andrew Argyle; the Australian Horse Industry Council; the Equine Federation of Australia; the New South Wales Farmers Association; the New South Wales Master Farriers Association; Sydney Horse Transport, Goldners Horse Transport, Hawkesbury Racehorse Transport, Prestige Racehorse Transport and RV Horse Transport Pty Limited; the CSIRO; the corporation responsible for the operation of Tullamarine Airport; Mr John Landos from Quarantine and Inspection Resources Pty Limited; Mr Michael Moore; or Professor Keith Entwistle.

In his final address Senior Counsel Assisting drew attention to the possibility that the exposure recommendation might have contemplated the granting of too wide a spectrum of powers to the Inspector General—that the powers should be of checking or, as the current language has it, auditing, only. The point is well made. I amended my recommendations to give effect to it. The amendments also meet some of the reservations of New South Wales. I recapitulate:

- (a) The appointment of an independent, qualified person is needed in order to, and should, restore public confidence in national biosecurity in relation to horses.
- (b) AQIS and Biosecurity Australia, separately and collectively, have failed to keep a disease in relation to which there was ready knowledge, information and warning out of the country and the general horse population.
- (c) The disease caused great financial loss and social disruption.
- (d) The importation of horses (other than from New Zealand) and a failure of biosecurity in relation to that—having regard to the reduced importation of other animals for breeding purposes rather than genetic material—pose one

⁹ SUBS.ARB.001.0001.

of the greatest risks of the introduction of serious exotic disease of all live animal importations.¹⁰

- (e) The concept of an inspector standing outside and completely independent of a government department or departments is not novel.¹¹ Even if it were, that could scarcely be a ground for rejecting it, particularly when the will and momentum for internal auditing, efficacy and change have been shown to be wanting.
- (f) The role is a highly specialised one. It requires qualifications if it is to be performed well, and it involves overseas inspections. Any other body or person would need to employ qualified staff to do it.
- (g) The Inspector General, as proposed, would be able to exercise his or her own judgment and discretion in relation to when and how, sensitively but effectively, to make overseas inspections.
- (h) The Inspector General, as proposed, having direct access and responsibility to the Minister, would ensure public accountability, transparency and awareness.
- (i) There is among those who have been most affected by the outbreak, and those most knowledgeable, strong support for the appointment.
- (j) A sunset clause of five years in the relevant legislation, which I recommend, would enable the need for the position to be reviewed in the future.

¹⁰ T970, T997 (Widders).

¹¹ Under the *Public Service Act 1992* (as first enacted), the Public Service Board had wide powers under s. 17, including to examine the business of each department and ascertain whether any inefficiencies or lack of economy existed, to exercise critical oversight of its activities and methods of conducting business, and to make any consequent recommendation, report or suggestion to the Minister administering the department.

Recommendations

I recommend that there be established the position of Inspector General of Horse Importation, the duties of that position being:

- (a) to check, by inspection and audit at least once every 30 months, that operations and procedures at each approved pre-export quarantine premises are documented and being complied with
- (b) to check, by inspection and audit from time to time at the Inspector General's discretion, that import conditions covering the period until horses arrive at an airport in Australia are being complied with
- (c) to check, by inspection and audit at least once every 30 months, that operations and procedures applying from when horses arrive at an airport in Australia until the completion of post-arrival quarantine are documented and being complied with
- (d) to report in writing at least once every 12 months to the Minister responsible for quarantine on the results of such inspections and audits and such other related matters as the Inspector General thinks necessary.

I recommend that the position of Inspector General of Horse Importation:

- (a) have such powers and authority and be subject to all protections necessary to enable the performance and discharge of the duties set out above
- (b) be terminated after five years.

I recommend that the person holding the position of Inspector General of Horse Importation:

- (a) be appointed by the Governor-General in Council following public advertisement
- (b) be appointed for a term of five years only or for such lesser term as may remain at the time of appointment
- (c) receive such remuneration and other benefits as fixed or recommended by the Remuneration Tribunal
- (d) be a person with expertise in equine affairs and with such other qualifications and experience as the Governor-General in Council considers appropriate
- (e) not hold or take other employment or consultancies that might give rise to an actual or perceived conflict of interest with the duties of Inspector General
- (f) be obliged to submit to any medical examination reasonably required by the Minister responsible for quarantine before or during the term of appointment for the purpose of assessing his or her suitability for the position
- (g) shall not be, or have been within the two years immediately preceding the appointment, employed or engaged by the Department of Agriculture, Fisheries and Forestry.

I recommend that the person holding the position of Inspector General of Horse Importation may be removed in the following circumstances only:

- (a) automatically
 - (i) on bankruptcy or on an application to take the benefit of a law for the relief of bankruptcy
 - (ii) on conviction for an indictable offenceor
 - (iii) on loss or suspension of any licence or authority to practise his or her regular profession
- (b) by dismissal by the Governor-General in Council for proved misconduct in or relating directly or indirectly to the performance of his or her duties
- (c) by resignation in writing to the Minister responsible for quarantine
- (d) on certification by two medical practitioners of mental or physical incapacity to perform the duties of Inspector General.

14.2 Designation of an officer to be responsible for the importation of horses

In the exposure recommendations it was proposed that a Government Quarantine Veterinarian for Horse Importation be appointed to head a new section in AQIS. The recommendation was prompted by the lack of clear lines of communication between those responsible for formulating procedures and work instructions and those responsible for implementing them and the number of different 'national programs' having various responsibilities in relation to the importation of horses, as well as the New South Wales and Victorian regional offices, which had responsibility for the activities of those programs in those states. Although the need for an officer to have overall responsibility remains, there are difficulties in the way of introducing a new section to AQIS, which would in itself create complex lines of responsibility for those engaged in other activities.

I am also mindful of the fact that the Quarantine and Biosecurity Review Panel will examine and make recommendations about the structure of AQIS. There remains, however, the need for urgent action, even if only on an interim basis. For these reasons I recommend, for immediate implementation, that an officer with such responsibility be designated within the existing AQIS structure and that that officer be at the Senior Executive Service level.

Even so, it is desirable that I deal with the submissions in respect of a Government Quarantine Veterinarian for Horse Importation, because those submissions have some relevance to the recommendation I do make.

The Quarantine and Exports Advisory Council argued against the appointment of a Government Quarantine Veterinarian for Horse Importation. It noted that ‘the recommendation [for that appointment] arises from concerns that “the so-called system of matrix management in an absolute form is over-elaborate and has resulted in an absence of responsibility and accountability for and compliance with procedures concerning the importation of horses. A simplified hierarchical structure for equine importation is required”’.

The Advisory Council says it does not agree that matrix management systems per se—or, indeed, the system of matrix management that operates in AQIS today—is overly elaborate or unduly complex. Council members have, the submission goes, experience of matrix management in government departments, Commonwealth and state, and the private sector. The council claims they usually work well. It cites the Australian Taxation Office and the Department of Immigration and Citizenship, among others. I cannot, of course, comment on these. But it seems to me that the Advisory Council might have misunderstood what the recommendation for a Government Quarantine Veterinarian for Horse Importation sought to do and why I put it forward. I was not proposing, and I do not now propose, a complete reorganisation of AQIS. That is not within my terms of reference. Nor am I saying that any different form of matrix management would not be workable. I have not heard evidence that would enable me to make comprehensive recommendations about a complete restructure of AQIS or Biosecurity Australia.

The Quarantine and Biosecurity Review Panel will no doubt consider these broader questions. But I have heard and seen enough to have reached a strong conviction that matrix management in the form in which it has come to be practised in AQIS¹² (not by design) has contributed to many inefficiencies and played its part in the ultimate failure of AQIS in relation to horse importation. It has done so by blurring lines of responsibility, and therefore of accountability, in ways I need not repeat here. Those making decisions within a national program are not close to operations at the regional level. The national program formulates and approves standard operating procedures from a place that, in the absence of close involvement of those in the regions, can be remote from the operational. These difficulties are to some extent compounded by the separate involvement of Biosecurity Australia in formulating and advising about policy and the fact that to date it has not had a clearly defined role in the preparation and review of standard operating procedures. The position is

¹² T4371, T4551.

further complicated where the need for nationally consistent operating procedures is imposed on an activity that at the moment occurs only at two airports and two government quarantine stations in the whole of Australia and then only during limited specified periods. To apply the elaborate procedures applicable to the remainder of the department to these unique circumstances seems to me to be over-elaboration and to have occurred, in part at least, as a consequence of the system of management of AQIS.

In my view, correction of this, as well as the assurance of good biosecurity, can be achieved only if there is a very clear line of reporting and recourse by staff at lower levels to those above them who make management decisions. The objective evidence of the problems matrix management in relation to horse importation, which was before me almost daily, did not, of course, stand alone. It was also the subject of the evidence of an independent expert, Ms Rachael Heald. During the hearing the only challenge to her evidence was mounted in cross-examination by AQIS. It seemed to be on the basis largely that Ms Heald's practical experience was limited to relatively small organisations. AQIS overlooked her study of the topic, which was additional to her considerable experience in management and consulting. The challenge failed. Ms Heald's evidence—that matrix management, wherever practised, has very often caused problems and should not only be confined to special situations requiring it but also be kept under continual review—remains uncontradicted.

Another concern raised by the Quarantine and Exports Advisory Council is that the appointment of a Government Quarantine Veterinarian for Horse Importation, or any extension of the 'concept', might result in a similar appointment in relation to other animals and commodities, leading to multiple direct reports to the Executive Director, centralisation of authority in Canberra, specialisation and fragmentation of skilled resources, lack of responsiveness to local needs, and loss of the benefits of multi-skilling and transferability of staff.

Authority in Canberra is already highly centralised. The 'regions' had little or no say in budgeting. They found it difficult to obtain justifiable staff increases. The only authority of substance the regional officials seemed to have was in relation to day-to-day operations, and then only with the resources that the national program chose to make available. The recommendations I make deal with a demonstrated failure with respect to horses and are not a precedent for other importations, which have not been associated with an event of the kind that occurred here.

There is an irony, which should already be apparent, in an assertion that a broadening 'of the concept of a Government Veterinarian' would cause a lack of responsiveness to local needs and the loss of the benefits of multi-skilling and transferability of staff. The evidence proved that there was in fact little multi-skilling at Eastern Creek because, among other things, there were no

proper induction and training of staff. It also demonstrated the better performance of the government quarantine station at Spotswood, where the manager and his assistant had been in their positions for many years and were able to deploy the skills and knowledge acquired directly in doing their work.

I accept, as the Advisory Council submits, that the function of quarantine stations is more disease specific than species specific, but unless there are knowledge, efficiency and rigour in relation to every relevant species then quarantine will not be specific to every relevant disease.

What I have said of the Advisory Council's submission on this point also applies to a similar submission by the Community and Public Sector Union, although that body agrees that organisational changes in AQIS are necessary and that a hierarchical structure (as in the Customs Department) should be examined. There obviously is no perfect solution to the problems arising in the management of every organisation from time to time. All of that said, though, I am persuaded that the recommendation I now make should provide a better, more practical solution—even though it might need to be adapted in the future—than the appointment of a Government Veterinarian.

Recommendation

I recommend that the Secretary of the Department of Agriculture, Fisheries and Forestry designate, without delay, a Senior Executive Service officer to be primarily responsible and accountable for the importation of horses into Australia and to that end to have the power to exercise all necessary authority.

14.3 Artificial insemination of thoroughbreds

Relatively few live mammals (other than domestic pets) are now imported into Australia. Because the horses in Eastern Creek at the time of the outbreak were stallions imported to participate in the thoroughbred breeding season, an obvious question was why thoroughbred breeders chose to import stallions rather than reproductive genetic material. The presence of these horses in Australia brought its own risks. Consideration had therefore to be given to the effect any restriction on current practices might have. I raised the subject early in the Inquiry.

The immediate answer to it, of course, is that the Stud Book rules regulating the register of thoroughbred horses internationally and domestically effectively prevent the breeding of those horses other than by natural means. It is a rule not replicated with other horse breeds but, given the considerable size of the thoroughbred racing and breeding industries, it does demand consideration. In

substance, the relevant rule applying internationally as well as domestically is as follows:

A horse will not be eligible for [entry in] the Stud Book or Non Thoroughbred Register if it is produced—

– By any form of artificial breeding,

Or

– From a natural covering of a mare by a stallion which in that same covering season was being bred to other mares by artificial insemination.¹³

The question provoked both enthusiastic and informative responses. One came from Mr John Digby, a highly knowledgeable person, who for 15 years had been Keeper of the Stud Book. In that capacity he had attended 14 meetings of the International (Thoroughbred) Stud Book Committee. Earlier, for 12 years, he had been the assistant director of the disease control program in the Federal Bureau of Animal Health, and before that he had filled a similar position in New Zealand. He was, in addition, a qualified veterinarian.

Among his authoritative opinions were that the chance of having equine influenza virus enter the country as an unintentional fellow traveller in semen samples is close to zero; that this is in marked contrast to the high risk that the virus will be an unintentional fellow traveller with an imported working stallion; that it would not be appropriate for all stallion imports to be replaced by imports of semen; and that the thoroughbred breeder should have the choice of using artificial insemination.¹⁴

Mr Digby's view, expressed forcefully, was that the ban on artificial insemination unnecessarily and significantly contributes to the high level of risk that the virus will be able to travel to Australia with a shipment of horses.¹⁵ He acknowledged that the rule would not be easily overturned. The only current arguments he understood to exist against the use of artificial insemination for thoroughbreds are the need to comply with those international rules and the argument, favoured by some breeders, that centres on the potential damage to the commercial value of their investment in the event of increased competition resulting from cheaper and more widely available breeding methods.

Mr Digby's opinions were debated in cross-examination. He accepted, in effect, that the full commercial implications, both domestic and international, of the use of AI with thoroughbreds are unknown, but affirmed that in horse breeding, across the spectrum from standardbreds to polo ponies—and, indeed,

¹³ T3049 (Digby).

¹⁴ EII.0006.003.0086.

¹⁵ EII.0006.003.0086 at 0087–0088.

in the breeding of bovines and other productive animals, the prohibition by the thoroughbred and racing businesses, is unique.¹⁶ His final position was that every breeder should at least be given the choice of using AI.

Evidence was also received from Mr John Bagshaw, a large-scale commercial breeder of standardbred, as opposed to thoroughbred, horses. He holds a degree of Bachelor of Applied Chemistry and has successfully bred horses using chilled semen transported from New Zealand to Australia. His experience, however, is that to transport semen from other more distant parts of the world requires it to be frozen (owing to the susceptibility of fresh semen to degeneration), which is a less popular means of storage and transfer because not all horse semen responds well to such treatment. He explained:

Using frozen semen can be a bit of a hit and miss affair. The quality of the semen can be suspect and it requires a far greater expertise in knowing when to inseminate the mare with the semen in order to get the best results.

...

Owners of mares are reluctant to use frozen semen because there is a higher risk that no foal will be produced. Similarly, stallion owners are reluctant to use frozen semen because the practice is that they only get paid if a live foal is produced.¹⁷

Like Mr Digby, Mr Bagshaw favoured choice. He noted that within his industry the widespread use of artificial insemination has reduced, but not eliminated, the need for shuttle stallions.

The current holder of Mr Digby's former position of Keeper of the Stud Book, Mr Michael Ford (who also, it should be noted, was Deputy Keeper of the Stud Book for 19 years), was another witness. He produced the International Agreement on Breeding, Racing and Wagering to which the relevant Australian organisations are parties. The key provision of the agreement is summarised above.

Mr Ford discounted the prospect that the international rules might be changed to allow AI in the foreseeable future. He said that a meeting of the International Stud Book Committee in October 2007 endorsed the current position, which is also supported by the broader 69-country membership of the International Federation of Horse Authorities. His evidence elaborated on the extent to which the proposition has been considered and rejected over a number of years.

Among the arguments to the contrary was one presented by Freehills, Solicitors, on behalf of Mr Daniel Moore, a director of Country Racing Victoria and an experienced breeder:

¹⁶ T98 (Dr Gilkerson).

¹⁷ WIT.ARB.001.0001 at paras 21–23.

The operation of the Prohibition effectively creates monopoly distortions in the thoroughbred industry. The owners, breeders, trainers and other industry participants that benefit from these monopoly distortions are strongly motivated to retain the Prohibition in Australia.

...

By removing the Prohibition, monopoly rents will be reduced in the market for breeding and racing horses in Australia. Although economic efficiency therefore supports the introduction of artificial insemination into the Australian thoroughbred industry, many significant and powerful industry participants who benefit from the monopoly distortions are, of course, likely to strongly oppose it.

I have not referred to all the evidence on the topic. On the basis of it, however, I could not recommend either a ban on the importation of shuttle stallions or legislation (which for full effectiveness might well need to be both federal and state and territory) to ban any prohibition on the registration or racing of horses bred as a result of AI. There would be many implications of a ban of that kind—commercial, ethical and otherwise—which need further exploration before a ban could be seriously contemplated. None of that, however, means that shuttle stallions, because of their constant travel from country to country and their direct contact with many mares in those countries, might not present a greater risk as carriers of disease than horses imported to remain in the country. Nevertheless, the risk does provide one of several reasons for charging somewhat larger amounts in respect of the importation and quarantining of shuttle stallions.

14.4 Review of fees charged in respect of importation of horses

It is necessary to consider AQIS's costs in relation to horse importation for several reasons:

- (a) persuasive evidence that short-staffing¹⁸ (particularly at Eastern Creek) might have made a contribution to the outbreak
- (b) that budgetary constraints, whether actual or perceived, were the cause of the short-staffing¹⁹
- (c) that there was a reasonable basis for differential charging for the importation and quarantining of shuttle stallions²⁰

¹⁸ T393–T394 (Sims), T3146–T3149 (Gundry), T1947–T1950 (Hankins).

¹⁹ T3514–T3515 (Liehne), T1166–T1167 (Widders), T393–T394 (Sims).

²⁰ T3367 (Clegg).

- (d) delays on the part of AQIS in reviewing its costs and fees²¹ and therefore charging
- (e) charging on an historical basis without zero budgeting having taken place within institutional memory.

I was also influenced by a tendency, discernible on the whole of the relevant evidence, on the part of AQIS to treat some of its work at the quarantine stations as ‘service delivery’ to ‘clients’, rather than as work and resources provided as a necessary facet of quarantine. As a consequence, I formed the impression that AQIS’s costings and charges should be more than they were, and that, if they were, biosecurity and quarantine to prevent another outbreak of equine influenza would be improved.

In doing so, I kept in mind that the Australian National Audit Office has reviewed AQIS’s cost recovery systems, and that AQIS last sought a determination of fees in 2005. I also had regard to the Australian Government Cost Recovery Guidelines, issued in July 2005.²²

With respect to the Audit Office’s review of AQIS’s cost recovery systems, it is relevant to point out that the Audit Office also considered that AQIS could better assure itself of the accuracy of staffing costs if it were to undertake systematic comparisons of the Activity Costs Assessment and personnel and human resources systems, at least at the end of each financial year. The Audit Office made these further observations

- 4.7 Although AQIS has enhanced its procedures for managing the risk of over-recoveries, it does not draw together all identified program risks into its business plans. The ANAO reviewed the business plans for the five programs surveyed for this audit. The Meat Inspection program had the most comprehensive risk assessment of the five programs. Its plan considered detailed risks and treatments for specific cost increases and fluctuations in industry demand. However, the risk identification and mitigation strategies in relation to cost-recovery for the four other programs were less comprehensive. For example, the only risk identified by the Quarantine Import Clearance program was ‘failure to cost-recover’, and the mitigation strategy was ‘progression of Import Clearance Cost-Recovery 2002–03 Project’.
- 4.8 A clearer articulation of cost-recovery risk management strategies in the business plans would assist AQIS to manage risk more in line with the JCPAA’s recommendation. For example, hostilities overseas, exchange rate variations, environmental issues (for example, droughts), changes to legislative requirements (for example, arising from foot-and-mouth breakouts) and the subsequent impacts on program revenue, costs and fees/charges.

²¹ T969 (Widders).

²² DAFF.0001.868.0001.

For the purposes of the audit report, AQIS had provided the following information:

5. The program also changed the fees for horses after consultation with importers in 2001. These fees were changed to gain the cooperation of importers so that a standard system of three-week quarantine cycles could be implemented. Prior to this, importers booked the station based on the date their horses would arrive in Australia. Other importers wishing to use the station at the same time were required to negotiate with the importer who booked the station first. As most horse importers are direct competitors, there was little incentive for them to reach agreement. If no agreement was reached, the second importer could not use that station. This situation created tension between the importers and fuelled claims that AQIS favoured one importer over another.

The new fee structure for horses enables importers to all use a 1 week arrival window for no cost, then commence the mandatory two week quarantine period charged the standard daily rate last calculated in 1999.²³

The Australian Government Cost Recovery Guidelines²⁴ state that, used appropriately, cost recovery can provide an important means of improving the efficiency with which Australian government products and services are produced and consumed and that charges for goods and services can give an important message to users or their customers about the cost of resources involved. Cost recovery, the guidelines continue, can also improve equity by ensuring that those who use Australian government products and services or who create the need for regulation bear the cost.

From the audit report and all the evidence that I heard, the following matters became apparent:

- (a) Another costs and fees review is overdue.
- (b) ‘Head office costs’—including for compiling, despatching and processing applications for horse importation and examining relevant documents—and full current capital costs might not have been fully calculated.
- (c) There has been confusion between the provision of ‘customer’ services and work and the provision of resources necessarily incidental to effective quarantine. Horses in quarantine must be cared for. Because of their size, capacity to inflict harm and, in the case of some of them, their value and vulnerability to injury, it is better (and doubtless the wish of their owners) that the caring be done by owners’ trained employees or contractors. If, in order to perform that work, these people must live at a quarantine station

²³ DAFF.0001.555.0566.

²⁴ DAFF.0001.868.0001 at 0020.

and comply with the procedures there, then all the costs associated with them should be regarded as costs of quarantine and be fully recoverable.

- (d) Budgeting and costing should be, and have not been, zero based.
- (e) Any activity, especially one involving the holding or possession of the property of others, presents risks. In the words of the Australian National Audit Office, there need to be 'cost recovery management strategies'. A prudent person carrying on an activity includes as a cost of the activity the cost of insuring against the risks of the activity, including his or her own negligence. Insurance is simply another cost of the activity. On one view, the Inquiry I conducted (and the cost of it) are a materialisation of a relevant risk. A government might not wish to pass on an actual or notional cost of insurance against all risks, but it does seem to me to be reasonable that there be a component in respect of risk—not to the extent of the price of an insurance premium rateably shared by quarantine users but of a relatively modest kind—in the charges for the importation of horses and their quarantining. There is currently no such 'risk component' in the charges.
- (f) There is no doubt that the outbreak caused widespread costs. The improved procedures that have already been introduced and the implementation of recommendations will come at additional cost.
- (g) Shuttle stallions should attract higher charges because they are highly strung, energetic, powerful and valuable and therefore need more care and attention, which involve more handling and more traffic (farriers, and veterinarians, and so on). Because of their international shuttling and mating, they are also more exposed to exotic diseases.
- (h) Darley, a major exporter of shuttle stallions, acknowledged this in its submissions and did not oppose an increase in charges, provided the charges were reasonable and the result of 'true improvements'.²⁵ Darley accepted the interim rate proposed in the exposure recommendations.
- (i) When asked about the matter, counsel for Coolmore said he would not cavil with the proposition that a 'relatively small' differential in fees for shuttle stallions might be applied to reflect their value, their relative fragility and the additional risk they present because of their regular and close contact with other equines.²⁶ (I should make it clear that counsel for Coolmore offered that only on the basis that he adhered to his primary

²⁵ SUBS.DLYA.001.0001 at 0033.

²⁶ T4486.

submission that his client should not be obliged to meet any expenses associated with AQIS's deficiencies.)

- (j) Counsel for International Racehorse Transport, opposed any payment for AQIS's deficiencies but submitted that charges should reflect actual costs and should only discriminate between classes of horses if justified by a disparity in the use of resources.²⁷
- (k) The exposure recommendation with respect to charges was not opposed by the Australian Racing Board, the Thoroughbred Breeders Association, Aushorse and the Harness Racing Association.²⁸
- (l) Higher (justifiable) charges more closely related to actual costs calculated on a proper basis will help relieve budgetary constraints contributing to a shortage of necessary staff and other resources.
- (m) The interim increased charges I recommend are modest.
- (n) The costing and charging proposals are consistent with the Australian Government Cost Recovery Guidelines.

²⁷ SUBS.IRT.003.0001 at paras 35–46.

²⁸ SUBS.ARB.001.0001 at para. 122.

Recommendations

I recommend that the fees charged in relation to the importation and quarantining of horses be reviewed and fixed without delay having regard to the following factors:

- (a) the cost of the drafting, preparation, printing, distribution, publishing, collection, checking, recording and filing of all documents, questionnaires, certificates and forms concerning the importation and quarantining of horses
- (b) the cost of employing all people paid by the Commonwealth and engaged in work concerning the importation and quarantining of horses, including the Inspector General and the officer responsible for the importation of horses and their staff
- (c) a risk factor that has regard to risks to the Commonwealth, its employees, contractors and all other people, things and animals arising out of, or such as could arise out of, any act or omission for which the Commonwealth might be held liable concerning the importation and quarantining of horses and to the costs that might be incurred by an event or events of the kind that occurred in August 2007
- (d) the costs of all drugs, implements, tools, laboratories, establishments, lands, places, buildings and things used or held, licensed or leased or owned by the Commonwealth for or in respect of the importation or quarantining of horses. Depreciation, amortisation, holding and all other costs should be taken into account in calculating these costs
- (e) costs and fees charged by other individuals (if any) carrying out the same or similar work to that done by AQIS
- (f) any costs of preparing, auditing, reviewing, checking or training in relation to the work instructions and standard operating procedures
- (g) an additional and reasonable cost for contingencies of not less than 10 per cent of the sum of all other costs.

I recommend that, until the review of those fees has been completed, the fee charged by the government controlled and operated quarantine stations for thoroughbred stallions temporarily imported into Australia be not be less than \$165.00 plus GST a day and the fee for all other horses be not less than \$65.00 plus GST a day. No discount is to be allowed for the number of horses in a consignment.

Appendix A Terms of reference



THE HON PETER MCGAURAN MP
MINISTER FOR AGRICULTURE, FISHERIES AND FORESTRY

25 September 2007

Appointment of Commissioner under section 66AY of the *Quarantine Act 1908*

Under section 66AY of the *Quarantine Act 1908*, I hereby appoint the Honourable Ian Callinan AC to conduct a Commission of Inquiry into the August 2007 outbreak of equine influenza in Australia. This appointment is effective as of 25 September 2007.

Specifically, Mr Callinan's terms of reference are to inquire into and report with respect to:

- (a) the circumstances that have contributed to the outbreak of equine influenza in Australia; and
- (b) the need for any strengthened biosecurity procedures for quarantine management of imported horses.

As he deems necessary during the course of the Commission of Inquiry, Mr Callinan may also inquire into such other matters incidental to those stated above as might assist me in considering his report.

The report is to be provided no later than 25 April 2008.

A handwritten signature in black ink, appearing to read 'Peter McGauran'.

Peter McGauran

Minister for Agriculture, Fisheries and Forestry

Appendix B The Inquiry team

The following people provided assistance during some or all of the term of the Inquiry. The Department of Agriculture, Fisheries and Forestry provided the investigation team by arrangement under ss. 66AZB(1) of the *Quarantine Act 1908*. The individual investigators were seconded to the Inquiry for varying periods, depending on operational requirements.

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Appendix C Parties

Commonwealth of Australia

State of New South Wales

State of Queensland

Livestock Transport (Sydney) Pty Ltd, trading as Livestock Transport Group

Australian Racing Board Ltd, Thoroughbred Breeders Australia Ltd, Aushorse Ltd, Australian Harness Racing Council Inc.

The Australian Veterinary Association Ltd

The Australian Horse Industry Council Inc.

Calogo Bloodstock AG, trading as Coolmore Australia

International Racehorse Transport Pty Ltd

Darley Australia Pty Ltd

Equestrian Federation of Australia Ltd

NSW Master Farriers Association, Sydney Horse Transport, Goldners Horse Transport, Hawkesbury Racehorse Transport, Prestige Racehorse Transport, RB Horse Transport Pty Ltd

Randwick Equine Centre and associated veterinarians

Appendix D Witnesses

Table D.1 Witnesses presenting oral evidence

Name	Occupation/organisation
Adams, Graham John	Randwick Equine Centre veterinarian
Argyle, Andrew David	Wollondilly Equine
Atkinson, Craig Lindsay	Coolmore driver
Bagshaw, John Ralph	Standardbred breeder (AI)
Barlow, Scott	Farrier
Bates, Christine Jane	Maitland event
Baxter, Lloyd	JG Goldner driver
Beardmore, Millie	Maitland event
Bennett, Crispin	Crispin Bennett International Horse Transport
Birkett, Jamie	Maitland event
Bowd, Bradley John	Arrowfield groom
Britton, Andrea Leigh	Department of Primary Industries epidemiologist
Brown, Ainslie Anne	Australian Quarantine and Inspection Service, Canberra
Brown, Lynda Jean	Maitland event
Bruyn, John Aloysius	Randwick Equine Centre veterinarian
Bucciarelli, Gianna	Customs
Burnett, Andrew John Francis	Livestock Transport Group driver
Cahill, John Anthony	Chief Executive, Biosecurity Australia
Carey, James Stephen Patrick	Coolmore groom
Carroll, Sharon	Maitland event
Chadwick, Patricia	Maitland event
Chamberlain, Michael	Maitland event
Chapman, Wayne George	Darley groom
Chomley, Richie Alexander	Livestock Transport Group driver
Christesen, Rhonda Elaine	Australian Quarantine and Inspection Service, Eastern Creek Quarantine Station
Clarke, Augusta	Maitland event
Clarke, Edwin William	Livestock Transport Group driver
Clegg, Narelle Anne	Australian Quarantine and Inspection Service, Canberra
Constance, Mathew William	Maitland event
Comter, Julian Matthew	Sydney Flight Operations Manager, International Racehorse Transport
Crane, Morgan Estell	Maitland event
Crowley, Denis James	Coolmore veterinarian
Cushing, Pauline	International Racehorse Transport senior groom
Dierks, Daniella	Maitland event
Digby, John	Former Keeper of the Australian Stud Book
Eastlake, Nicholas	Livestock Transport Group

Name	Occupation/organisation
Ellis, Patricia Margaret	Veterinarian
Farrell, Jessica	Maitland event
Faulkner, Benjamin Ryan	Coolmore groom
Ford, Michael Joseph	Keeper of the Australian Stud Book
Fradd, Daniel John	Baggage handler, Aerocare Flight Support Pty Limited
Gallagher, Kevin Peter	Australian Quarantine and Inspection Service Airside
Gilkerson, James R	Faculty of Veterinary Science, University of Melbourne
Goiser, Maxwell John	Dumpex
Gordon, Jennifer Mary	Executive Manager, Quarantine, Australian Quarantine and Inspection Service
Gundry, Wayne Stephen	Australian Quarantine and Inspection Service, Spotswood
Hankins, Gregory Patrick	Australian Quarantine and Inspection Service, Eastern Creek Quarantine Station
Hatherley, Lauren Kate	Maitland event
Heald, Rachael Joanne	Ernst & Young (organisational management expert)
Heaney, Thomas Patrick	Coolmore groom
Hee Song, Yan	Australian Quarantine and Inspection Service veterinarian
Hibbert, Michael Kevin	Australian Quarantine and Inspection Service, Canberra
Hindmarsh, Emma	Maitland event
Hindmarsh, Norman James	Maitland event
Hine, Jodie Louise	Maitland event
Hinze, Bradley Ross	Coolmore farrier
Hirose, Tetsuhito	International Racehorse Transport groom
Holloway, John David Christian	Australian Quarantine and Inspection Service, Eastern Creek Quarantine Station
Holmes, Josephine McLaren	Maitland event
Hore, Tony	Sydney Horse Transport driver
Hunter, Stephen	Deputy Secretary, Department of Agriculture, Fisheries and Forestry and Executive Director, Australian Quarantine and Inspection Service
Ironside, David Andrew	National Manager, Live Animal Imports and Post-Entry Animal Quarantine Programs, Australian Quarantine and Inspection Service
Jolley, Emmett Christopher	Darley—Stud handler
Keane, Cyril Eugene (Basil)	Coolmore Yearling manager
Kladis, Dennis	Australian Quarantine and Inspection Service Airside
Liehne, Peter Francis Stanley	National Manager, Animal and Plant Quarantine Branch, Australian Quarantine and Inspection Service
Magnier, Thomas Vincent	Business and racing manager, Coolmore
Maguire, Kim Catherine Therese	Crispin Bennett International Horse Transport
Manahan, Frederick Foster	Veterinary surgeon
Martin, Robyn Gail	Biosecurity Australia
McDonald, Bruce Alexander (Snowy)	International Racehorse Transport groom
McKinnon, Angus Ormond	AI expert
Murphy, Justin Adam	Livestock Transport Group driver

Name	Occupation/organisation
Nash, Gregory Victor	Randwick Equine Centre veterinarian
Newton, Richard (with Debra Elton, Toni-ann Hammond, Adam Rash and Neil Bryant)	Newmarket
Nunn, Michael John	Biosecurity Australia
O'Brien, Adrian Timothy	Assistant stud manager, Coolmore
O'Callahan, Paul Andrew	Sandown
O'Connell, Conall Trevor Francis	Secretary, Department of Agriculture, Fisheries and Forestry
Oram, Susan	Maitland event
Pedagandham, Vasantha	Australian Quarantine and Inspection Service Airside
Roberts, Lucy	Maitland event
Ryan, John Raymond	Livestock Transport Group driver
Sims, Julie Anne	Assistant Regional Manager, Australian Quarantine and Inspection Service, NSW
Small, Aimee Louise	Maitland event
Smith, William Blake	Livestock Transport Group driver
St John, Gerard	Coolmore groom
Stewart, Brian (with Kenneth Lam)	Hong Kong Jockey Club
Story, Martin John	Financial Controller, Arrowfield Group
Sunderland, John Anthony	Stud Manager, Darley Stud Australia
Tarrant, Mark Anthony	Maitland event
Thompson, Karen	Maitland event
Tompson, Kelly Louise	Maitland event
Turner, Graham Arthur	Regional Manager, Australian Quarantine and Inspection Service, NSW
Wallace, Quentin William Vaughan	International Racehorse Transport
Walsh, Gabriel	Coolmore groom
Watene, Paul	Sydney Horse Transport driver
Watson, James	Australian Animal Health Laboratory
Whitfeld, James Richard	Randwick Equine Centre veterinarian
Widders, Phillip Rodney	Australian Quarantine and Inspection Service veterinarian
Worboyes, Frank	Livestock Transport Group driver

Table D.2 Witnesses presenting statements/statutory declarations but not presenting oral evidence

Name	Occupation/Organisation
Abijomaa, Ismat	Toll
Adlouni, Osama	SNP Security
Allen, Benjamin	Solicitor, Deacons
Allen, Juliet Catherine	Maitland event
Anderson, Clare	Maitland event
Anderson, Hannah	Maitland event
Anderson, Peter Russell	Crispin Bennett Horse Transport
Angus, Steve Mark	SITA
Armstrong, Emma	Maitland event
Balloch, Ward Karl	Darley groom
Baudille, Andrew Francesco	Aero-Care
Baumann, Wayne	Darley farrier
Begg, Dr Leanne Mary	Randwick Equine Centre veterinarian
Best, Kenneth James	International Racehorse Transport groom
Bird, Catherine Mary	Centennial Parklands Equestrian Centre
Blackburn, Craig John	Australian Quarantine and Inspection Service Airside
Booth, Benjamin Brian	Aero-Care
Brazil, Robert Thomas	Toll
Burgess, Vicki Anne	Eventing NSW—Maitland event
Burke, Christopher Francis	International Racehorse Transport
Caple, David William	CP and MP Trust
Carpenter, Amber Joan	Maitland event
Carter, Grant Edward	Menzies
Chadderton, Kathleen	Maitland event
Chadwick, Stacey Ann	Maitland event
Chamberlain, Elizabeth Laura	Maitland event
Christie, Bruce Morgan	Chief Veterinary Officer, NSW Department of Primary Industries
Christie, Neil Charles	SITA
Clark, Peter	Livestock Transport Group driver
Collins, Liana Jane	Maitland event
Connelly, Paul Daniel	SITA
Cook, Chloe	Maitland event
Crabtree, Mark Anthony	Toll
Crispe, Ellie	NSW Department of Primary Industries, veterinarian (Warwick Farm dogs)
Cudmore, Emma	Maitland event
de Guzman Alegre, Dennis	Australian Quarantine and Inspection Service—Air Cargo
Deschamps, Chris	Darley groom
Deering, Mark Thomas	Darley groom
Delaney, Mark Anthony	Darley groom
Dell Armi, Robert Mario	Customs

Name	Occupation/Organisation
Dickinson, Geoffrey	Equine Influenza Inquiry investigator
Dodds, Kristine	Equine Influenza Inquiry investigator
Donaldson, Mia Debra Rose	Maitland event
Dressing, Lynleigh Oriel	International Racehorse Transport
Edgar, Andrew James	Darley veterinarian
Elliott, Raymond	Diamonds Catering
Elliott, Ronald John	Sydney Airport Corporation
Farrell, Debbie Maria	Australian Quarantine and Inspection Service Airside
Fauonuku, Talakai	Menzies
Ferrara, Luana	Australian Quarantine and Inspection Service, veterinarian
Findlay, Jade Suttor	Maitland event
Finlay, David	Optus
Flash, Meredith Lea	Victorian veterinarian
Fouracre, David	Equine Influenza Inquiry investigator
Fowler, Derek James	Darley groom
Freestone, John Fulton	Coolmore veterinarian
Gabriel, Stephen Andrew	Australian Quarantine and Inspection Service—Air Cargo
Goddard, Michael	Maitland event
Goodworth, Aaron Kevin	Darley
Gough, Rosemary Therese	MP Stables
Grant, Cheryl Leanne	Maitland event
Grimson, Aimee Siobhan	Maitland event
Grimson, Megan Jan	Maitland event
Halford, Daniel James	Darley groom
Hammond, Tarsha	Maitland event
Hennessy, Patrick Peter	Australian Quarantine and Inspection Service, Eastern Creek Quarantine Station
Henry-May, Tania	Darley
Hoare, Roderick Jonathan Thaxted	Formerly Department of Primary Industries
Hornby, Deborah	Maitland event
Howard, Gary James	Australian Quarantine and Inspection Service Airside
Hulme, Katie Louise	Customs
Ippolito, Guisepppe	SITA driver
Jackson, Adrian David	Toll
Jackson, Matthew William Christopher	Darley groom
Jeffrie, John Stanley	Crispin Bennett International Horse Transport groom
Johnson, Alissa	Maitland event
Keegan, Jerry Joseph	Darley groom
Keegan, Michael William	Darley groom
Kelly, Michael John	Equine Influenza Inquiry Investigator
Ker, Mark	JG Goldner Pty Ltd
Klay, Mariann	Darley veterinarian
Knight, Allan James	Darley groom
Kudo, Kazushi	Shadai groom

Name	Occupation/Organisation
Lam, Grace Wendy	Australian Quarantine and Inspection Service, Canberra
Lawrence, Anthony	SNP Security
Leadon, Desmond	Darley veterinarian
Lean, Phillip Edward	Eastern Creek Quarantine Station, contract handyman
Lee, Michael James	FedEx
Livermore, Mark Andrew	Equine Influenza Inquiry investigator
Livingstone, Christopher Andrew	SITA
Lucas, Michelle Louise	Centennial Parklands Equestrian Centre
Major, Derek	Maitland event
Mani, Kalyani	Customs
Matthews, Brooke Susanne	International Racehorse Transport
Matthews, Sarah	Centennial Park Veterinary Practice
McInerney, Darren	Aero-Care
McKay, Stuart George Robert	Darley
McLean, Todd	Cathay Pacific
McNab, Kevin Archibald	Kelecyn Equestrian Services
McTaggart, Katelee	Maitland event
Montgomery, Caroline Mary	Maitland event
Mooney, James John	Maitland event
Moorley, Daniel John	Southern Cross Stock Feeds—Maitland event
Munnoch, Petra Elisabeth	Randwick Equine Centre veterinarian nurse
Munns, Michael	Equine Influenza Inquiry investigator
Murphy, Carolyn	Maitland event
Murray, Amanda	Maitland event
Myers, Gavin Adrian	Customs
Myers, Norman	Darley groom
Naitaka, Noa	Menzies
Newton, Russell	Menzies
Noble, Amanda	Equine Influenza Inquiry investigator
Noomote, Masayuki	Shadai groom
Nunez, Dioscoro Pelayo	Australian Quarantine and Inspection Service Airside
Oakes, Bernadette Anne	Formerly Australian Quarantine and Inspection Service
Oldfield, Michael Gordon	Equine Influenza Inquiry investigator
Otto, Robert Earl	Customs
Passmore, Mark	Equine Influenza Inquiry investigator
Pawar, Kamaljit Singh	Australian Quarantine and Inspection Service Airside
Pendergast, Craig Leonard	Toll
Pettit, Mark William	Australian Quarantine and Inspection Service Airside
Pope, David Richard	Darley groom
Pritchard, Michael Alexander	DuPont
Psomas, Chris	Menzies
Pui, Huachang	Singapore Airlines
Reedy, John	Darley farrier

Name	Occupation/Organisation
Richardson, Nicola	Maitland event
Rickwood, Melissa Lesley	Maitland event
Roberts, Sidney Jane	Livestock Transport Group driver
Roberts, Timothy Maxwell Boynton	Centennial Park Veterinary Practice
Rowe, Michael Frederick	Darley groom
Ryan, Gerrard Paul	Coolmore groom
Ryan, Kate	Maitland event
Ryan, Paul Francis	Darley driver
Schneider, Elissa Marie	Maitland event
Schuller, Catherine Anne	Australian Quarantine and Inspection Service veterinarian
Boidi, Silvano	Toll
Saule, Franc Stefan	Sportscolour Pty Ltd
Sim, Ian Craig	Aero-Care
Slappendel, Michelle	Centennial Parklands Equestrian Centre
Smith, Bruce William	Equine Influenza Inquiry investigator
Spain, Julie	Formerly International Racehorse Transport
Spedding, Duncan Mackenzie	Toll
Steininger, Karl	Over the Top horse yards—Maitland event
Steininger, Kim Louise	Maitland event
Streeter, Michael Scot	Equine Influenza Inquiry investigator
Taylor, Michael Frederic	Martinair
Tetley, Glen James	Toll
Theodoridis, Theo	Aero-Care
Thomas, Denise Sylvia	Australian Quarantine and Inspection Service Airside
Thurley, Catherine Marie	CP and MP Trust
Tsunoda, Dr Nobuo	Veterinarian and Manager, Shadai Stallion Station
Turner, Robert Peter	Toll
Twomey, Peter Francis	International Racehorse Transport
Usumaki, Meli	Menzies
Vodden, Dee Emma	Centennial Parklands Manager
Wajcman, Benjamin Rueben	Australian Quarantine and Inspection Service Air Cargo
Walker, Graeme Norman	Livestock Transport Group driver
Warren, Emily	Maitland event
Webster, Christopher Alan	Darley groom
Westman, Stephen George	Australian Quarantine and Inspection Service contract worker
Whiffin, David Steven	Menzies
White, Margot	Maitland event
White, Michael	Maitland event
Williams, Tanya Anne	Maitland event
Williams, Tiffany Jane	Maitland event
Williamson, Marcia	Maitland event
Wilson, Gregory	Equine Influenza Inquiry investigator
Wong, Derek Waimond	Centennial Park Veterinary Practice

Name	Occupation/Organisation
Wright, Donna Louise	Maitland event
Wylie, Ronald Mark	Arrowfield
Zajic, James Edward	Darley groom
Zondagh, Matthew	Muswellbrook Veterinarian Hospital

Appendix E Submission providers

The following individuals and organisations provided submissions directly addressing the terms of reference of the Inquiry. The Inquiry also received a wide range of other correspondence and information, some of which was of assistance.

E.1 Parties

Commonwealth of Australia
State of New South Wales
State of Queensland
International Racehorse Transport Pty Ltd
Calogo Bloodstock AG, trading as Coolmore Australia
Darley Australia Pty Ltd
The Australian Veterinary Association Ltd
Australian Racing Board Ltd and Others
Randwick Equine Centre and Others
The Australian Horse Industry Council Inc.
Equestrian Federation of Australia
NSW Master Farriers Association and Others

E.2 Others

Quarantine and Exports Advisory Council
NSW Farmers Association
Community and Public Sector Union
Crispin Bennett International Horse Transport Pty Ltd
Melbourne Airport
Australian Animal Health Laboratory
Primary Industries and Resources SA
Department of Primary Industries, Victoria
John Landos
Michael Moore
Keith Entwistle

Abbreviations

AQIS	Australian Quarantine and Inspection Service
ASIC	aviation security identification card
C-ELISA	competitive enzyme-linked immunosorbent assay
CPEC	Centennial Parklands Equestrian Centre
DAFF	Department of Agriculture, Fisheries and Forestry
ECQS	Eastern Creek Quarantine Station
HA	haemagglutinin
HACCP	hazard analysis critical control point
HI	haemagglutination inhibition
IRT	International Racehorse Transport Pty Ltd
LAI	Live Animal Imports (Program)
NA	neuraminidase
PAQ	post-arrival quarantine
PEAQ	Post-Entry Animal Quarantine (Program)
PEQ	pre-export quarantine
qPCR	real-time polymerase chain reaction or quantitative PCR
RNA	ribonucleic acid
SPS Agreement	Agreement on the Application of Sanitary and Phytosanitary Measures
SRA	security restricted area
SRH	single radial haemolysis