# final report

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## Review of sheep pre-embarkation inspection procedures

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# Abstract

This report describes inspection and rejection procedures that may occur between the vendor property and port for live sheep exports from ports in South Australia, Victoria and Western Australia. The current systems are believed to be compliant with all requirements as stipulated in the ASEL and the *Export Control (Animals) Order 2004.* The report suggests that the current Fremantle wharf inspection procedures be retained as the final individual animal inspection procedure and that consideration be given to trialling this system in South Australia and Victoria.

# Executive Summary

This report describes inspection and rejection procedures that occur between the vendor property and port for live sheep exports from ports in South Australia, Victoria and Western Australia. Activities are compared to requirements in the Australian Standards for the Export of Livestock (ASEL) and the *Export Control (Animals) Order 2004.*

The individual animal inspection system as viewed in Fremantle is considered to provide a better opportunity to apply a consistently high level of inspection rigour to every animal and more likely to detect and reject animals that meet rejection criteria than the individual animal inspection processes in South Australia or Victoria. The individual animal inspection processes described in this report for South Australia and Victoria do not deliver a consistently rigorous inspection opportunity to every sheep and consequently are considered to have a higher likelihood of missing some animals that actually meet ASEL rejection criteria.

The raised platform structure is a very effective method for moving animals in a secure and safe manner from truck to ship. All rejects at the Fremantle port are held in secure holding pens out of view of the general loading activities and under shade. They receive appropriate veterinary care and are transported back to the registered premise at intervals through the day. The Fremantle inspection system is therefore considered to have better potential to ensure optimal animal welfare outcomes both for sheep that are loaded onto the ship (those that pass the inspection) and for sheep that are rejected at the port, than the method viewed at the Adelaide port.

It is essential to have an effective method at the port to provide a last opportunity to inspect and reject animals before loading them onto the ship and to do this in a manner that has the least potential adverse effect on animal welfare.

It is also important to recognise that the port-side inspection is the last of many inspection and rejection opportunities that sheep will experience from the time they enter the registered premise until they are loaded onto the ship.

The current systems reviewed at South Australia, Victoria and Western Australia are believed to be compliant with all requirements as stipulated in the ASEL and the *Export Control (Animals) Order 2004.* This conclusion is based in part on an interpretation of inspection requirements prior to loading at the registered premises that is expressed in the *Export Control (Animals) Order 2004*.

Reject animals are detected at the port that could have been identified and rejected at the premise. While implementing additional individual animal inspection processes at the registered premise would detect and remove some of these animals, it is not considered likely to eliminate all non-journey related rejections that may occur at the port and it does not eliminate the need to have inspection and rejection procedures at the port.

There is insufficient benefit to warrant having two individual animal inspection procedures very close together in time (one at the registered premise and one at the port). The most logical place to have the final individual animal inspection process is at the port, immediately before sheep are loaded onto the ship. This provides complete assurance that all animals that are loaded onto the ship are compliant with all ASEL requirements.

There is scope for improvement to other existing inspection and rejection processes currently being applied at registered premises. It is suggested that this could be incorporated into quality assurance systems that are expected to be implemented in response to ESCAS requirements.

It is suggested that consideration be given to trialling the Fremantle system in other states.

# Abbreviations

| Abbreviation | Explanation |
|---|---|
| AAV | AQIS accredited veterinarian |
| AEP | Approved Export Plan |
| AHCPLL | Application for Health Certificate and Permission to Leave for Loading |
| ALEC | Australian Livestock Exporters' Council |
| AO | Officer of the Order of Australia |
| AQIS | Australian Quarantine and Inspection Service |
| ASEL | Australian Standards for the Export of Livestock |
| CRMP | Consignment Risk Management Plan |
| DAFF | Department of Agriculture, Fisheries and Forestry |
| DAFWA | Department of Agriculture and Food Western Australia |
| DPI | Department of Primary Industries |
| ESCAS | Exporter Supply Chain Assurance System |
| MLA | Meat and Livestock Australia |
| NLIS | National Livestock Identification System |
| NOI | Notice of Intention |
| NVD | National Vendor Declaration |
| PIC | Property Identification Code |
| PIRSA | Department of Primary Industries and Resources of South Australia |
| QA | Quality Assurance |
| RSPCA | Royal Society for the Prevention of Cruelty to Animals |
| SA | South Australia |
| Vict | Victoria |
| WA | Western Australia |

# Contents

# 1 Background

In June 2011 the Australian Minister for Agriculture, Fisheries and Forestry commissioned Mr Bill Farmer AO to undertake a review of the Australian livestock export trade. The Independent Review of Australia's Livestock Export Trade – referred to in this report as the *Farmer Review (2011)* made a number of findings and recommendations, including that there should be a review of the current inspection regime for sheep prior to export from Fremantle.

This review was initiated by industry and funded by MLA/LiveCorp.

# 2 Project Objectives - Section

## 2.1 Project Objectives

1. Conduct a review of sheep inspection procedures during the pre-export preparation phases (on-farm sourcing; arrival / conditioning / dispatch at registered premise; loading at port) at one selected port (Fremantle).

2. Collect information and data from exporters loading sheep out of Fremantle to describe current practices for sheep inspection procedures and provide summary statistics for sheep numbers and rejection rates at various steps along the process.

3. Compare practices to current guidelines and standards.

4. Based on outcomes of Fremantle review, provide a desktop review and assessment of Portland and Adelaide.

5. Provide a written report on the project outcomes and a risk assessment of documented procedures.

# 3 Methodology

The project involved the following components and activities.

1. Brief review of the relevant literature
   A brief review of relevant literature was completed to summarise relevant information from the existing ASEL and ESCAS as well as relevant state and federal legislation and identifying government and industry bodies that may have roles to play in livestock export processes.

2. Observation of export processes
   Project team members attended assembly feedlots during the period when sheep were being delivered to the feedlot (receivals) and when sheep were being loaded onto trucks for transport to the wharf (load-out) to observe inspection procedures during these periods and speak to relevant personnel. In addition project team members attended the wharf to observe sheep being delivered to the wharf for final inspection and loading onto the export vessel. These visits were intended to allow accurate description of current practices for managing inspections of sheep at these periods.

3. Collection of additional information from other exporters.
   There are a small number of exporters who regularly transport sheep by ship from Fremantle. This project is designed to involve project team members attending various inspection steps in association with a small number of commercial shipments. It was recognised that given the time constraints for this project that it may not be possible to have a project team member attend all possible assembly feedlots and one or more shipments involving all of the exporters who currently export sheep through the Fremantle Port. Other exporters involved in sheep export from Fremantle will be contacted for information on procedures and protocols implemented by their staff during export processes.

   An attempt will be made to source retrospective data on sheep numbers for a number of export voyages to allow summary statistics to be calculated for rejections at specific steps in the pre-embarkation process.

   A description will be made of the sheep inspection procedures during the pre-export preparation phases (on-farm sourcing; arrival / conditioning / dispatch at registered premise; loading at port) at Portland and Adelaide, either through attending the assembly feedlot and load-out at these locations or by consulting with exporters who manage sheep through these ports.

4. Reports.
   A detailed and comprehensive report will be prepared.

# 4 Review of relevant literature

Livestock export operates under a number of government legislative and regulatory mechanisms that operate mainly at the state and commonwealth levels. These have been most recently described in the Independent Review of Australia's Livestock Export Trade which also provides a review of the export chain and the component activities and responsibilities.

This review focuses on those activities and regulations or requirements that are most relevant to movement of sheep from property to the registered premise or assembly feedlot, receival at the assembly feedlot and subsequent movement of animals from the assembly feedlot to the wharf for loading on the export vessel.

**Note re change from AQIS to DAFF Biosecurity**

In November 2011, DAFF announced changes to the identity of various functions within DAFF to reflect the fact that biosecurity functions range across a continuum that begins off-shore and continues at the border and then within Australia. As part of this process the AQIS title has been superseded by the title of **DAFF Biosecurity**. As a result, AQIS Officers may be more appropriately referred to as DAFF Officers. It is understood that there is a gradual re-badging and re-naming that is flowing through departmental offices and documentation.

The AQIS name is very well recognised amongst stakeholders, is contained in recent literature including the 2011 *Farmer Review* and appears in various references (websites and written documents) relating to preparation of livestock for export. This report therefore continues to refer to AQIS and AQIS Officers and AQIS Accredited Veterinarians (AAVs) in an attempt to avoid any confusion for readers.

## 4.1 Overview of the export chain

The parts of the export chain that culminate in the loaded vessel departing an Australian port is summarised in the following section. The information is specifically focused on sheep exports from southern Australian ports. More detailed information may be found on the DAFF website.

1. Annual export licence
   Only licenced exporters are allowed to export livestock from Australia. Information on the application and assessment process and requirements may be found on the DAFF website.

2. Notice of Intention (NOI) and Consignment Risk Management Plan (CRMP) and evidence of compliance with the Exporter Supply Chain Assurance System (ESCAS) requirements
   The exporter submits a completed NOI & CRMP form that describes the proposed export plan including details of exporter, importer(s), details of livestock (species, class, breed, age, quantity) proposed for each registered premise and port of loading. The NOI also provides details of the ship, relevant dates for the voyage, destination ports, and names of the AQIS Accredited Veterinarian (AAV) and LiveCorp accredited stock person.

   AAVs were originally referred to as third party veterinarians and this term appears occasionally in documentation. They are not government employees but they do have to complete an accreditation process and meet various requirements in order to be accredited by AQIS. AAVs may be involved in either pre-export preparation (the focus of this review), or may travel on a ship to provide shipboard services under an Approved Export Program.

   The CRMP component of the application describes the importing country requirements, how the exporter plans to meet relevant standards described in the ASEL and any other relevant risk management considered necessary for the export. This information includes a description of how any importing country requirements (pre-export quarantine, isolation, health certification or testing etc) will be met. The ESCAS component requires the exporter to describe how they will ensure control of the supply chain in accordance with ESCAS requirements.

   Approval of the NOI & CRMP by AQIS is required before the exporter can begin to prepare the specified livestock for export. All subsequent activities in relation to livestock preparation must be in accordance with the NOI & CRMP.

   AQIS will also provide one or more Approved Export Plans (AEP) when an NOI is approved. The AEP defines any tasks to be undertaken by the AAV as part of the pre-export preparation of livestock (quarantine, treatments, testing, health certification).

3. Pre-export preparation of livestock
   The exporter then sources livestock and proceeds through any treatment or testing and certification requirements as stipulated in the NOI and AEP.

   All livestock intended for export from Australia by sea must be assembled at an AQIS registered premise for pre-export quarantine and preparation. Registration must be renewed annually and requires preparation of a detailed operations manual documenting how the

premise will operate and in particular meeting requirements in relevant legislation and the ASEL.

Livestock sourced on-farm for export must meet requirements in ASEL, any importer specifications and any importing country requirements that relate to on-farm treatment, testing or examination. On-farm procedures may or may not be included in the AEP.

Livestock that meet the relevant criteria are then assembled at the registered premise for preparation in accordance with requirements that may be defined in ASEL, NOI, AEP or importer/importing country specifications.

When pre-export preparations have been completed at the registered premises the exporter submits a completed Application for Health Certificate and Permission for Leave for Loading (AHCPLL) form to AQIS. The AHCPL form is signed by an AAV and the exporter. The AAV will complete an inspection of the livestock in the registered premise before signing the declaration. Inspection procedures are variable and may include mob level inspection or individual animal inspections if deemed to be required.

Following submission of the completed AHCPL, an AQIS officer will then inspect the consignment at the registered premise. This inspection is generally a mob-level inspection but may involve any inspection activity at the discretion of the AQIS officer. If all requirements have been met, AQIS will issue a permission to leave for loading and this authorises the exporter to transport the livestock from the registered premise to the wharf for loading onto the export vessel. An AQIS officer may request animals be removed from the export process if they have any concerns about their suitability for export.

4. Loading

   Transport vehicles carry livestock to the wharf and unload them in preparation for loading onto the export vessel.

   There is a requirement for animals to be inspected by an AAV prior to loading and for the exporter to complete an Application for Livestock Export Permits. The authorising AQIS officer then reviews all relevant documents and issues certificate(s) of health and export permit(s). At this point the responsibility for the sea consignment passes to the ship’s master and the voyage can commence.

5. Voyage commences

## 4.2 Previous descriptions of sheep inspection and rejection systems

In 2008 a report was prepared as part of the Australian Government Department of Agriculture Forestry and Fisheries (DAFF) Graduate Development Program. The report was titled ***Review of live sheep inspection and rejection processes and practices***.

The DAFF Graduate Development Program provides an opportunity for graduate staff to work on industry issues, liaise with industry groups and develop skills relevant to the government workplace. This report provides a useful source of descriptive information about practices at the time the report was compiled.

The report identified two broad practices relating to inspection of sheep in the period immediately before they are loaded onto trucks to be transported to the wharf and inspection at the wharf before they are loaded onto the ship. The two different practices were described as being geographically distinct in that one general approach was implemented in eastern ports (Portland, Victoria and Adelaide, South Australia) and the other general approach was implemented in the major western port of Fremantle, Western Australia.

The authors of the report attended inspection procedures at a registered premise near Fremantle and at the Fremantle wharf to observe procedures first hand as well as interview various individuals involved in aspects of the procedures. Information concerning practices in the eastern ports was based only on anecdotal reports and the authors expressed caution in interpreting these descriptions since they had not been based on first hand observation.

The following information is taken directly from the 2008 report and is presented here as a source of descriptive information about industry practices from that period. Material in italics is directly reproduced from the 2008 report. The information provides a useful summary of practices and supports the conclusion that the practices being used in different states have been applied in the same general way for many years in each state. There are occasions where information from 2008 does not represent current practices and these are identified using footnotes.

### 4.2.1 Fremantle system

> *On arrival at the registered premise, sheep are drafted into lines according to sex and weight. Unfit sheep are drafted off and rejected. On the day prior to loadout (transport to the port), flock inspections are carried out independently by both an AQIS vet and an accredited vet. The intent of the flock inspection is to assess the health of the flock as a whole, rather than to identify problems with individual sheep. If problems – most notably scouring, pink eye or scabby mouth – are identified amongst a significant number in the flock, the vets may request that the pens be redrafted to remove the unfit sheep, or reject a pen in its entirety. Ear-tag numbers and location of injured or sick individuals are noted but no action is taken at this point*
>
> *The accredited vet inspection involved walking in a random pattern through a shed of 10-12 pens housing approximately 6000 sheep. Not all pens were entered during this process*[1]*.*

[1] Every pen and every paddock are inspected under current arrangements as described later in this report.

> *Inspection of sheep in the paddocks involved driving through the yards and inspecting the flock through binoculars[2].*
>
> *The inspection by the AQIS vet involved walking slowly through the sheds and paddocks to more closely observe the flock's general health.*
>
> *At loadout the sheep were moved into a system of holding pens before being loaded onto the truck. There were no facilities for drafting off unfit sheep during the loadout process[3]. Sheep exited a funnelling pen single file and ran up the loading ramp onto the trucks.*
>
> *On arrival at the port, sheep were unloaded via a ramp and onto an elevated race. The race led to a drafting gate and pen. An inspector was positioned along each race to view the sheep as they exited the truck and passed by individually at shoulder height. Inspectors noted unfit sheep as they passed and alerted the drafter, who drafted the rejects off. The raised platform inspection system afforded a good view of the legs and underbelly which are not clearly visible during ground level inspections.*

The report noted that over a 12 month period data from AQIS indicated that an average consignment loaded at Fremantle port consisted of 57,367 sheep with an average of 334 rejects at the port (5.8 per 1,000 sheep inspected at the port). The authors also noted that for two consignments where more detailed data were obtained, that rejections at the registered premise (prior to loadout) accounted for approximately 75% of total rejects for a consignment. The data suggested that rejects in the registered premise prior to loadout were running at a rate of about 1.8% or 18 rejects per 1,000 sheep.

The authors then summarised stakeholder perceptions concerning the Fremantle system.

> *Those involved with the Western Australian system (both industry and government) were unanimous in their belief that the system has superior animal welfare outcomes compared to the system used in South Australia and Victoria. Most stakeholders feel that the system in Western Australia is more welfare focussed, and that the shoulder height individual inspection at the port is the best set-up to detect unfit sheep.*

The authors presented view points on whether the addition of similar individual inspection procedures at the registered premise might be useful. Stakeholders commented on the costs of modifying facilities at each registered premise and the additional adverse impacts on animal health and welfare and human occupational health and safety if an additional individual animal inspection process were to be implemented at the registered premise, particularly since such a process would not eliminate the need for inspection at the wharf to detect and remove any sheep that may have been injured during transport to the wharf.

These views as expressed in the 2008 report have been endorsed during the conduct of this review by all of the individuals directly involved in the Western Australian inspection system.

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[2] Inspectors under current arrangements may drive to and between paddocks but they are understood to walk into every paddock and pen.

[3] Under current arrangements there are yard-inspectors operating close to the loading pens and rejects are identified and manually moved to small holding pens.

### 4.2.2 Adelaide system

*The individual animal inspection process in Adelaide is carried out at the registered premises rather than at the port. There are two registered premises serving Adelaide, both of which are approximately one hour drive from the port.*

*On the day prior to loading, a flock inspection at the registered premise is performed. This involves the AQIS vet and an accredited vet driving through each paddock together looking for unfit sheep. Each paddock holds approximately one thousand sheep, with smaller paddocks holding about six to eight hundred sheep. As noted in Fremantle, independent inspections on foot by both the AQIS and accredited vets would be a more thorough method of flock inspection.*

*Attention is paid to sheep congregated towards the back of the paddocks, as sheep that are unwell or in poor condition tend to separate themselves from the flock. If unfit sheep are identified, vets make a note of which paddock they are in. If a problem such as pink eye or scabby mouth is identified within a flock, more thorough attention is paid to sheep in that flock during the loadout process.*

*As part of the flock inspection, the AQIS vet checks the health records and speaks to the registered premise owner to identify any problems that may have been noted, such as unusually high mortality rates. If a suspect flock is identified, particular attention is paid to that flock during the loading of trucks at the registered premise.*

*On the day of loading, sheep are prepared at the registered premise. The sheep are filed through a race individually, and the accredited vet and a stockman identify those that are unfit for travel as they pass by. Unfit sheep are marked for rejection and drafted off.*

*Although there are no facilities for an inspection at the port, there is generally one inspector watching the sheep as they are unloading, to identify any injuries that may have been sustained during transport from the registered premise. Any sheep that are rejected at the registered premise or the port are sent to the abattoir for slaughter at the earliest possible opportunity.*

*Most exporters employ a quality controller at the registered premise and the port to carry out their own thorough inspection of the flocks. However, it was noted that all AQIS vets and accredited vets perform a slightly different inspection.*

Data from 20 consignments out of Adelaide (2006-2008) indicated that rejects removed from the consignment at the registered premise were running at a rate of about 1.6% or 16 per 1,000 sheep. On average at the Adelaide port, fewer than 1 per 1,000 sheep were being rejected. On average 95 percent of the rejected sheep were drafted off at the registered premise, and the remaining 5 percent were rejected at the port.

The authors did present stakeholder comments on the Adelaide system including that the process reflected what had always been done and that there were relatively fewer consignments being processed through the Adelaide port compared to the Fremantle port which may influence commercial decisions over investment in infrastructure. Stakeholders did not see any disadvantages

to the Adelaide system but many had not experienced the Fremantle system so were not able to provide direct comparisons of the two systems based on experience.

### 4.2.3 Portland system

*On the day prior to load out, a flock inspection is performed by an AQIS vet and an accredited vet. This involves driving through the registered premise paddocks to ensure the general health of the whole flock.*

*The group noted that the AQIS and accredited vets performed the flock inspections simultaneously, and in the confines of a vehicle. In contrast, the flock inspections at the registered premise in Western Australia were performed at separate times, and on most occasions, on foot.*

*On the morning of loading, sheep are moved from the paddocks to smaller pens. The accredited vet and registered premise staff walk through the yards, consisting of 200-250 sheep, to assess the flock health. Each pen is inspected twice. Immediately prior to loading, sheep are moved to smaller counting pens. Inspectors perform an individual inspection on sheep running one or two abreast. Sheep that are identified as not suitable or unfit for export are marked along the back with a blue strip. All rejected sheep are sent to a nearby abattoir as soon as practicably possible (usually one or two days), with the exception of sheep which are able to recover for a future shipment. Sheep suitable for export are counted and loading onto trucks destined for the port.*

*The individual inspection at the registered premise is performed at ground level.*

*The Portland port is located approximately 10 km from the registered premise. Upon arrival at the port, sheep are counted during unloading to ensure that numbers correspond with those counted at the registered premise. Sheep run down the unloading ramps into a circular pen filled with sand.*

The report indicated that there was an inspector in the sand filled pen and that stockmen then manually remove any rejects from the circular pen into small holding pens adjoining the circular pen.

Data from four voyages loaded at Portland indicated that the rejection rates were 1.4% or 14 per 1,000 at the registered premise and 2.2 per 1,000 at the port. About 85 percent of rejects were identified during the inspection at the registered premise with the remaining 15 percent identified at the port.

## 4.3 Independent Review of Australia's Livestock Export Trade

In June 2011 the Australian Minister for Agriculture, Fisheries and Forestry commissioned Mr Bill Farmer AO to undertake a review of the Australian livestock export trade. The *Farmer Review made* a number of observations, findings and recommendations that are related to the scope and objectives of this review.

### 4.3.1 Section 3: Current Regulatory Arrangements

The following observations from the *Farmer Review* were considered most relevant to this review activity:

- a lack of clear, or clearly appreciated, roles and responsibilities under the regulatory framework, and in particular the welfare of livestock destined for, or in, the export supply chain. (Farmer 2011, p27).
- small proportions of livestock were described as moving through the supply chain that did not conform to ASEL requirements (Farmer 2011, p28-29).
- the responsibility ultimately lies with exporters for ensuring that only fit and healthy livestock, meeting the requirements of ASEL, are presented for export (Farmer 2011, p29).
- the presence of unsuitable animals in the supply chain suggests that vendors, agents, exporters and AAVs could do better with respect to inspections (Farmer 2011, p29).

These observations were followed by specific findings and a recommendation which are reproduced directly here (italics signifying quotations from the *Farmer Review*).

> *Finding*
> *The domestic elements of the export supply chain are working substantially better now than before the Keniry Review. A number of concerns persist, including the lack of nationally consistent and enforceable standards for animal welfare and, at an operational level, some failure to comply with ASEL requirements.*
>
> *Finding*
> *Greater clarity about, and shared understandings on, responsibilities and regulatory powers in the respective jurisdictions would assist the Australian Government and the states and territories to identify and address gaps and areas of discontinuity. This is necessary to ensure more effective government dealings with animal welfare matters throughout the livestock export supply chain.*
>
> *Recommendation*
> *The Review recommends that the Australian Government urge the states and territories to develop and implement, as a priority, enforceable standards of welfare to replace Codes of Practice, incorporate the standards into legislation and prepare and implement compliance programs to monitor and enforce the regulations in the domestic phase of the livestock export trade.*
>
> *Cattle, sheep and goat welfare standards should be produced as a priority for incorporation into state and territory legislation.*
> (Farmer 2011, p30)

The *Farmer Review* identified general support from many stakeholders for the concept of an independently audited, through-chain quality system incorporating formal contracts involving exporters, producers, agents, registered premises operators and transporters (including shipping companies where relevant). The exporters would assume responsibility, with contract specifications including livestock type and quality specifications as well as compliance with enterprise-level QA programs and welfare standards at each stage in the export chain.

It was also suggested that once established, an effective, industry managed QA system could largely replace the current prescriptive regime with AQIS adopting more of an audit role with less direct involvement in compliance checking.

However, the *Farmer Review* also indicated that it does not consider the time is right to reduce government regulation. If industry were to introduce such a system and demonstrable animal welfare assurance improvements resulted, there might be scope in the future to examine options for reducing government regulation.

> *Recommendation*
> *The Review recommends that in line with ASEL, industry develop and implement a through-chain QA system to complement government regulatory compliance programs.*
> (Farmer 2011, p31)

It is noted that the Export Chain Quality Assurance System (ESCAS) has been introduced since the *Farmer Review* and is a direct response to these and other recommendations within the review.

The *Farmer Review* made the observation that mortality rates for sheep have not declined significantly since 2004, presumably referring to the national shipboard mortality statistics. Review of summary reports provided on the DAFF website[4] suggests that average sheep mortality rates on export voyages have ranged between 0.74% and 0.99% since the end of 2004 and have remained consistently under 1%. These estimates represent the average across all voyages in any particular year.

There have also been a number of AQIS mortality investigations involving sheep, triggered when shipboard mortality rates in a consignment exceed 2% (defined in the ASEL as the reportable mortality level). The term consignment is being used to refer to the total number of sheep loaded at one port under the responsibility of one exporter. There are examples where the reportable mortality may be exceeded for one consignment only on a ship that is carrying multiple separate consignments. Reports for mortality investigations that are completed when a shipboard mortality rate exceeds the reportable threshold may be found on the DAFF website[5].

The *Farmer Review* indicates that there may be consideration within DAFF that two veterinary inspections of sheep in southern Australian feedlots from May to October may assist determining if disease, body condition or feeding problems are declining or escalating before loading. During the conduct of this review there was no evidence to suggest that there were two veterinary inspections being conducted by the AAV or the AQIS officers at the registered premises.

[4] http://www.daff.gov.au/animal-plant-health/welfare/export-trade/mortalities
[5] http://www.daff.gov.au/aqis/export/live-animals/livestock/aqis-mortality-investigations

The *Farmer Review* also expressed concern about the fact that official scrutiny of sheep to ensure compliance with ASEL requirements occurs at a late stage in the preparation of sheep for export and that this may increase the pressures on AQIS to clear livestock in the period just before loading of sheep onto the ship (Farmer 2011, p34-35)

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The *Farmer Review* then presented a finding (see below) that specifically criticised procedures at the Fremantle port, drawing in part on observations outlined in the previous pages. This finding is understood to have contributed to the current review activity and this report. Export industry representatives from Western Australia that were contacted during the course of this review felt that this finding was not an accurate representation of the routine activities associated with preparation of sheep for export through Fremantle. These concerns are raised in more detail in the results and discussions sections of this report.

> *Finding*
> *Despite the general improvement in animal handling and transport and better understanding of welfare issues, there are some residual problems including on-farm preparation of both sheep and cattle and loading of higher-risk livestock for transport to feedlots. There is evidence of numbers of out-of-specifications sheep being delivered to Fremantle wharf for loading onto ships. This is the result of special inspection arrangements applying at Fremantle, in which the final individual inspection by the pre-export AAV is conducted at the wharf. This departs from ASEL requirements and adds significant pressure to the loading process.*
> (Farmer, 2011, p33)
>
> *Recommendation*
> *The Review recommends that the current inspection regime prior to export from Fremantle be reviewed, to ensure that thorough individual animal inspection by the AAV is conducted.*
> (Farmer, 2011, p34)

### 4.3.2 Section 4: Australian Standards for the Export of Livestock

The *Farmer Review* commented that it had received few submissions about loading of livestock onto ships.

Representatives of both agribusinesses and peak industry bodies stated that ASEL are adequate up to the point of delivery to the importing country. Their view was that ASEL provide comprehensive and detailed standards on the sourcing, preparation, management and transportation of livestock through the supply chain, while also providing guidance for those with responsibility for animal welfare within the livestock chain (Farmer 2011, p44).

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Industry stakeholders stated that individual properties are highly geared to meet the husbandry needs of livestock; that producers are trained in animal handling and care; that trucks meet the requisite standards; that holding yards are efficient and well managed, with stock shaded, watered and fed in comfort; and that it is in the best interests of livestock producers to have stock in excellent condition before travel and during transport (Farmer 2011, p44).

The following comments were made in the *Farmer Review* under this section that were considered particularly relevant to this review activity:

- Standards need to be clear, essential (causally related with mortality or otherwise scientifically based), consistent and verifiable. Ongoing feedback and review processes need to be clarified and strengthened and roles and responsibilities of bodies engaged in monitoring and enforcement of ASEL and related welfare standards need to be clarified and formalised. In addition, accountability for shipboard welfare needs to be better defined.
- ASEL could have a stronger focus on outcomes rather than inputs.
- Some sections of ASEL contain wording that is unclear and may lead to inconsistent advice or difficulty in enforcing standards.
- Flexibility of both Standards and associated Work Instructions is a key issue for regional AQIS veterinarians and a full review of ASEL should include consideration of issues of discretion and delegation.
- The Review observed livestock on occasion that did not meet the Standards, and on one occasion, livestock meeting rejection criteria were observed at ship loading and on board, having been through the requirements of Standard 4 without rejection.
- There were concerns that ASEL may not have clear enforcement provisions for occasions when there was non-compliance.

*Finding*
*• Since the introduction of ASEL, there have been improvements in many domestic elements of the supply chain.*
*• ASEL need to continue to evolve, in relation both to persistent issues like mortality in sheep exported from southern ports in winter months and to the results of scientific research.*
*• There needs to be closer examination of a range of issues relating to ASEL, including issues of scope, clarity and accountability, flexibility, sanctions and review procedures.*

*Recommendation*
*The Review recommends that a comprehensive review of ASEL be undertaken.*
*• The review should inter alia examine the policy on export of sheep from southern ports to the Middle East in winter months, with a view to:*
*— mitigate feedlot and shipboard losses in adverse weather conditions*
*— mitigate losses from heat stress and inanition during the voyage.*
*• The review should also consider additional specific criteria, identified in recent industry-funded research, for selection of suitable livestock for export.*
(Farmer 2011, p50)

### 4.3.3 Section 5: Suitability of livestock for export as feeder or slaughter animals

The *Farmer Review* uses the term ***suitability*** to refer to animal characteristics that are assessed at the initial selection process which generally is expected to take place on a vendor property or farm to determine whether the animals will both meet purchaser specifications and any local/state/national requirements including those concerning health and welfare.

It is important to note that some suitability characteristics will not be altered by the export preparation process. These are characteristics that will not change once the animals have been selected for export and include things such as: species, age, breed, sex, treatment history and origin. Farmer refers to these as ***basic suitability*** attributes.

There are other characteristics that may play a role in selection of animals for export (body weight, body condition and health status) but that may then change during the preparation of animals for export depending on health and disease in individuals or groups of animals. These characteristics influence the animal's fitness to load at any given point in time and may change over time, therefore requiring multiple opportunities for assessment.

Farmer notes that suitability of livestock can be assessed at four stages in the export chain:

1. On-farm selection involving assessment by the vendor and the exporter (or more typically a buyer acting as an agent for the exporter). The NVD provides a vendor declaration of the health of the animals. There are ASEL standards requiring that livestock sourced for export must be inspected on farm and any animal with signs consistent with ASEL rejection criteria must not be prepared for export.
2. Before removal from the property the transport operator must confirm that each animal is fit for export under ASEL and animals that do not meet these criteria must be removed.
3. Inspection at the registered premises which must occur immediately following unloading and also prior to loading out on completion of the feedlot period.
4. A final inspection is then performed immediately before loading on to the international transport vessel.

Under normal supply and demand forces it may be reasonable to expect that when supply of potentially suitable animals is high, there is an opportunity for selection pressure to ensure that exported animals are of high quality. Conversely when supply is low (particularly lower than demand) then market pressures may favour attempts to export animals that are of more variable and lower quality. Through chain quality assurance systems have the potential to ensure adherence to specifications and therefore ensure quality regardless of the supply side of the market.

## 4.4 State legislation and requirements

With respect to movement of sheep from a property to the assembly feedlot, there must be compliance with state / territory legislation and codes of practice concerning health, welfare and traceability of animals. The national Land Transport Standards have been approved by several states including Western Australia and South Australia but it is understood that these states are currently preparing to develop regulations to allow full implementation of the national standards within state legislative frameworks. State inspectors may then be assessing animal welfare under using a combination of current state legislation, regulations and codes of practice as well as referencing the national standards.

Officers from the relevant state departments (DAFWA, PIRSA, DPI Victoria etc) have responsibility for ensuring compliance with state legislation or codes concerning animal welfare, identification, traceability and transport of livestock within each state.

All sheep in Western Australia must be earmarked with the registered earmark for the property of birth (by 6 months of age or before they leave the property), and they must have a visual NLIS eartag inserted. In Western Australia NLIS eartags are colour coded by year of birth in an 8-year repeating cycle (2009=white, 2010=orange, 2011=green, 2012=purple), and also must contain the NLIS logo and the registered brand for the owner. Sheep that are not on the property of birth

(purchased and moved to another property) must have a pink post-breeder NLIS tag inserted that is imprinted with the new owner's brand.

All sheep that are being transported from one property to another in Western Australia (such as from property to the assembly feedlot), must travel with an NVD/waybill providing details of the owner/vendor (name, address of property, PIC, brand) as well as information describing the destination and declarations concerning various treatments. Copies of the NVD/waybill are kept by the vendor, transporter and purchaser.

There is some variation between states with respect to livestock requirements.

In South Australia, there is no legislated requirement for sheep to be earmarked though some producers still do use earmarks. All sheep in South Australia must have a visual NLIS eartag inserted and South Australia uses the same colour coding scheme indicating year of birth and post-breeder tags as are used in Western Australia. Sheep movements within South Australia must be accompanied by an NVD/waybill.

In Victoria, sheep must be identified with either a visual or an electronic NLIS eartag. Visual tags are colour coded by year of birth using the same colour coding system but electronic tags are yellow. All sheep movements involving movement to a property or location with a different PIC must be accompanied by an NVD/waybill.

There is generally a common requirement for all livestock movements to be registered on the NLIS movements database.

## 4.5 Australian Position Statement on the Export of Livestock

The position statement provides a brief overview of the export chain and the various roles and responsibilities.

Exporters must be licensed by the Commonwealth (DAFF) before they can legally export livestock from Australia.

Livestock sourced for export must meet all requirements under relevant state and territory legislation, including in particular animal health, welfare, identification and traceability.

**Guiding principles for the export of Australian livestock from Australia (reproduced from the Australian Position Statement on the Export of Livestock).**

- The health and welfare of animals is a primary consideration at all stages of the livestock export chain.
- All participants throughout the livestock export chain are responsible for the health and welfare of animals in their care.
- The operation and regulation of the livestock export industry is conducted in a transparent manner, in which accountabilities, roles and responsibilities are clearly defined and met.
- Animal health and welfare requirements that apply to the livestock export industry are consistent with those applying to other livestock industries in Australia.

- Participants in the livestock export industry are demonstrably competent and operate in accordance with the national animal health and welfare system in an environment that encourages sustainable improvement.
- Livestock export consignments from Australia meet the requirements of the national animal health and welfare system and importing country requirements.
- The export of livestock requires a risk-based approach throughout the export chain and development of appropriate risk minimisation strategies.
- The Australian Government and the Australian livestock export industry remain committed to furthering improvements in the health and welfare of livestock in the live export chain in Australia, including by supporting relevant research and development initiatives.
- The Australian Government and the Australian livestock export industry remain committed to furthering the health and welfare of livestock in importing countries by fostering cooperation and goodwill, sharing Australian technical expertise, providing educational and training opportunities, and supporting infrastructure.

## 4.6 Australian Standards for the Export of Livestock (ASEL)

The Australian Standards for the Export of Livestock (ASEL) – ***the Standards*** - provide defined welfare outcomes that must be achieved at critical steps along the export chain. The current ASEL (Version 2.3) came into effect in April 2011.

There are several areas of ASEL that are directly relevant to pre-embarkation inspection of sheep. These are summarised briefly here. Please note that the material presented in this review is a brief summary of relevant points. Readers are directed to the ASEL for additional detail.

It is important to note that compliance with the requirements as outlined in the ASEL will require compliance with a range of defined procedures and standards that may be derived from state or territory legislation (including codes of practice), as well as commonwealth legislation and regulations.

### 4.6.1 Standard 1: Sourcing and on-farm preparation of livestock

The required outcomes are defined in Section 1.2 and reproduced here:

> *(1) Livestock sourced for export must meet any requirement under a law of a state or territory relating to the sourcing of livestock. State and territory governments are responsible for ensuring that these requirements are met.*
>
> *(2) Livestock sourced for export must meet these Standards and importing country requirements.*
>
> *(3) Livestock sourced for export that become sick or injured during on-farm preparation must be excluded from export, and arrangements must be made for their prompt and humane handling and care.*
>
> *(4) AQIS must be satisfied that these Standards and importing country requirements are met before issuing a health certificate and export permit.*

AQIS must be satisfied that importing country requirements and the Standards have been met before issuing a health certificate and export permit.

Division 2 of Standard 1 of the ASEL then defines various standards for sourcing and on-farm preparation of livestock. These standards include general criteria relevant to state or territory legislation (requirements concerning animal health, welfare, identification and traceability), reference to the need to meet importing country requirements as defined in a separate agreement or protocol, and reference to Australian food safety requirements for livestock intended for human consumption.

The Standards then define various specific requirements that must be met including the following.

Standard number S1.7 states that:

> *Livestock sourced for export must be fit to enter the export chain. Livestock sourced for export must be inspected on-farm and any animal showing signs consistent with the rejection criteria below, or any other condition that could cause the animal's health and welfare to decline during transport or export preparation, must not be prepared for export.*

A list of rejection criteria is then specified under S1.7 that allows identification of animals that must be rejected. This is reproduced below.

**Table 1: Rejection criteria relating to sheep from Standard 1.7 of ASEL**

| ***Category*** | ***Rejection criteria*** |
|---|---|
| *General requirements* | *Fail to meet requirements of protocol/import permit, such as sex, type, breed, tag number* |
| | *Lactating animals with young at foot (but this does not apply to livestock being exported by air)* |
| | *Lactating animals* |
| | *Pregnancy status not confirmed as appropriate for journey* |
| *Systemic conditions* | *Emaciated or over fat* |
| | *Anorexia (inappetence)* |
| | *Uncoordinated, collapsed, weak* |
| | *Unwell, lethargic, dehydrated* |
| | *Ill-thrift* |
| *Gastrointestinal system* | *Dysentery or profuse diarrhoea* |
| | *Bloat* |
| *Nervous system* | *Nervous symptoms (head tilt, circling, incoordination)* |
| | *Abnormal or aggressive behaviour/intractable or violent* |
| *External/skin* | *Generalised papillomatosis or generalised ringworm, dermatophilosis* |
| | *Generalised and extensive buffalo fly lesions* |
| | *Generalised skin disease* |
| | *Visible external parasites* |
| | *Significant lacerations* |
| | *Discharging wounds or abscesses* |
| | *Cutaneous myiasis (flystrike)* |
| | *Ballanitis (pizzle rot in sheep)* |

| | |
|---|---|
| | *Blood/discharge from reproductive tract (vulva/prepuce)* |
| *Head* | *Blindness in one or both eyes* |
| | *Cancer eye* |
| | *Keratoconjunctivitis (pink eye)* |
| | *Excessive salivation* |
| | *Nasal discharge* |
| | *Coughing* |
| | *Respiratory distress — difficulty breathing* |
| | *Untipped sharp horns* |
| | *Sheep: long horns greater than one curl, except in approved NOI and CRMP* |
| | *Horns causing damage to head or eyes* |
| | *Bleeding horn/antler stumps* |
| | *Scabby mouth* |
| *Other* | *Mobs with unusual mortalities over the whole period of pre-export isolation* |
| | *Large disparities in size or age (redraft animals in this case)* |

There are a number of additional standard criteria concerning sheep:

- S1.8: body condition score range for sheep.
- S1.11: certification of non-pregnancy for sheep exported as slaughter or feeder animals.
- S1.12: lambs must be 14+ days post-weaning and >28kg liveweight.
- S1.13: breeder sheep must be not more than 100 days pregnant at departure.
- S1.16: acceptable horn criteria for export sheep
- S1.19: defines acceptable criteria for wool length and time off shears.
- S1.25: requirement for recording of all treatments administered to animals.
- S1.26: defines acceptable use of prostaglandin drugs in female livestock relative to export
- S1.27: animals that become sick or injured during preparation must be excluded from export and treated appropriately.

### 4.6.2 Standard 2: Land transport of livestock

The required outcomes are defined in Section 2.2 and reproduced here:

*(1) Only livestock fit to travel are presented for loading.*

*(2) Livestock are loaded in a manner that prevents injury and minimises stress.*

*(3) Transport of livestock is undertaken in a manner that meets these Standards, any requirements of a state or territory relating to the transport of livestock, and importing country requirements.*

*(4) Livestock are unloaded in a manner that prevents injury and minimises stress.*

The national standards for Land Transport of Livestock form an important source of information governing practices for land transport and these standards are in the process of being enacted in most Australian states. The national standards for Land Transport of Livestock specifically state that information should be considered in conjunction with other requirements such as the ASEL and that

in general where different sources may vary, the higher standard will apply and that the governing principle is the welfare of livestock.

Animals must only be loaded for transport to the registered premise if they meet standards outlined in Standard 2 of the ASEL. Under the ASEL responsibility for ensuring that all sheep that are loaded meet the relevant requirements outlined in the ASEL rests with the exporter. The vehicle driver then accepts responsibility for livestock on his or her vehicle from the point of loading until they are unloaded at the registered premise.

Under Divisions 2 and 3 of Standard 2 of the ASEL there are a number of standards that are relevant for land transport of sheep. These include:

- S2.1: land transport of livestock must meet any relevant requirement under state or territory legislation or national codes of practice.
- S2.2: land transport of livestock must meet any importing country requirements.
- S2.3: need for a detailed travel plan for interstate journeys greater than 2 hours and any journey greater than 8 hours
- S2.4: on-farm preparation of livestock for transport, vehicle requirements and loading facilities
- S2.8: feed and water curfews
- S2.9: limits for water deprivation
- S2.10: requirements for loading including separation of animals by species, class, young from old, size, and horned vs polled.
- S2.11: Livestock must be inspected prior to loading and animals with any condition specified in Standard S1.7 or that has any condition that could cause the animal's health and welfare to decline during transport or export preparation, must not be transported.
- S2.12: travel plan and journey log.
- S2.13: livestock must be loaded in a manner that prevents injury and minimises stress.
- S2.14: loading density and penning arrangements
- S2.15: at loading the person responsible for the vehicle is responsible for livestock.
- S2.16: defines intervals when livestock must be checked.
- S2.17: working dogs must not be in the same pen as livestock.
- S2.18: defines when livestock must be unloaded and rested and provided with feed and water during journeys.
- S2.19: at unloading, livestock become the responsibility of the designated person at the registered premises.
- S2.20: livestock that are distressed or injured at unloading must be given immediate assistance and if euthanasia is required it must be carried out humanely.
- S2.21: livestock must be unloaded for a rest period if the journey was longer than 14 hours.
- S2.22: unloading must involve competent stock handlers, minimisation of injury and stress and in appropriately designed facilities.
- S2.24: all relevant standards for land transport of livestock should also be applied for transport from registered premises to the port of export.

### 4.6.3 Standard 3: Management of livestock in registered premises

The required outcomes are defined in Section 3.2 and reproduced here:

> *(1) Facilities at registered premises are appropriate for the type and species of livestock to be held.*
> *(2) The health and welfare needs of the livestock are appropriately catered for in a secure environment.*
> *(3) Livestock leaving the premises are fit for the export voyage and meet importing country requirements.*
> *(4) Livestock rejected for export are managed humanely.*

It is also noted under Section 3.4 (Linkages) that only livestock fit to travel, which meet importing country requirements, can be loaded for transport to the port of embarkation.

Under Divisions 2 and 3 of Standard 3 of the ASEL there are a number of standards that are relevant for management of sheep in registered premises. These include:

- S3.0: registered premises must not be more than 8 hours journey time from the port.
- S3.1: operator must employ appropriate numbers of trained staff for effective operation and management of livestock.
- S3.2: construction and design of sheds and facilities at the registered premises.
- S3.3: registered premises must be constructed to allow quarantine and isolation of livestock as required.
- S3.4: management of surface water, drainage and livestock effluent.
- S3.5: provision of protection from extreme climatic conditions (shade, shelter, windbreaks).
- S3.6: fencing at the registered premises.
- S3.7: provision of adequate feed and water.
- S3.8: special conditions for preparation of sheep and goats in southern premises (south of latitude 26 degrees south) at different times of the year. Fremantle, Adelaide and Portland are all south of this line.
- S3.9: special conditions on sheep that can be exported to the Middle East during the period from May to October.
- S3.10: security at registered premises.
- S3.11: stocking densities at registered premises.
- S3.12: operator of registered premises must obtain copies of vendor declarations concerning property of origin and health and welfare of livestock.
- S3.13: livestock must be unloaded as soon as possible after arrival at the premises and **individually inspected** to determine whether they are suitable for export.
- S3.14: livestock must be offered feed and water as soon as possible after arrival at the premises.
- S3.15: requirements for penning livestock including separation of animals by species, class, young from old, and size.
- S3.16: daily monitoring of health, welfare and mortality including:
    - all livestock must be inspected daily
    - all sick and injured livestock must be given immediate treatment and veterinary advice sought if the cause is not obvious or treatment/prevention is ineffective.
    - investigation must be conducted by a registered veterinarian if mortalities in one paddock or shed and on one day exceed 0.25% or 3 deaths.
    - dead livestock must be collected and disposed of daily.

    - records must be kept of each consignment.
- S3.17: at unloading, livestock that are distressed, injured or otherwise unsuitable for export must be marked using a permanent method and isolated from the rest of the consignment. Records must be kept of the identity, treatment and disposal of all rejected animals. Criteria for rejection of livestock are provided in the following Division of Standard 3.

Section 3.1.2 of Division 3 of Standard 3 provides a definition of rejection criteria for sheep. These are reproduced below.

> *Sheep or goats found with any of the signs shown in Table A3.1.2 must be rejected from the proposed export consignment. Any other condition that could be defined as an infectious or contagious disease, or would mean that the animal's health or welfare would decline or that the animal would suffer significant distress during transport, also requires the animal's rejection from export.*

**Table 2: Sheep and goat rejection criteria from Table A3.1.2 of ASEL**

| Category | Rejection criteria |
|---|---|
| General requirements | Fail to meet requirements of protocol/import permit, such as sex, type, breed, tag number |
| | Lactating animals with young at foot (but this does not apply to livestock being exported by air) |
| | Lactating ewes and does |
| | Pregnancy status not confirmed as appropriate for journey |
| Systemic conditions | Emaciated or overfat |
| | Anorexia (inappetence) |
| | Uncoordinated, collapsed, weak |
| | Unwell, lethargic, dehydrated |
| | Ill-thrift |
| Musculoskeletal system | Lameness — footrot, foot abscess, arthritis, fractures etc or abnormal gait |
| | Abnormal soft tissue or bony swellings |
| Gastrointestinal system | Dysentery or profuse diarrhoea |
| | Bloat |
| Nervous system | Nervous signs (eg head tilt, circling, incoordination) |
| | Abnormal or aggressive behaviour/intractable or violent |
| External/skin | Generalised skin disease |
| | Visible external parasites |
| | Cutaneous myiasis (flystrike) |

| | |
|---|---|
| | Significant lacerations |
| | Discharging wounds or abscesses |
| | For sheep: wool longer than 25 mm, unless approved by the relevant Australian Government agency based on an agreed heat stress risk assessment model or it has been included in an approved NOI and CRMP |
| | External skin cancer |
| | Ballanitis (pizzle rot in sheep) |
| | Blood/discharge from reproductive tract (vulva/prepuce) |
| Head | Cancer eye |
| | Keratoconjunctivitis (pink eye) |
| | Excessive salivation |
| | Nasal discharge |
| | Blindness in one or both eyes |
| | Long horns greater than one curl, except in approved NOI and CRMP |
| | Horns causing damage to head or eyes |
| | Bleeding horn stumps |
| | Coughing |
| | Respiratory distress – difficulty breathing |
| | Scabby mouth |
| Other | Mobs with unusual mortalities or mortalities of more than 0.5% over the whole period of pre-export preparation |
| | Large disparities in size or age (redraft animals in this case) |

### 4.6.4 Standard 4: Vessel preparation and loading

The required outcomes are defined in Section 4.2 and reproduced here:

*(1) Livestock are healthy, fit to travel and comply with importing country requirements.*

*(2) The vessel meets Australian requirements for the safe carriage of livestock.*

*(3) Sufficient personnel must be available both at loading and during the voyage to ensure that livestock husbandry and welfare needs are addressed.*

*(4) Livestock are handled and loaded in a manner that prevents injury and minimises stress.*

*(5) The travel and loading plans adequately address the health and welfare of the livestock.*

*(6) A health certificate and an export permit are issued by AQIS.*

It is also noted under Section 4.4 (Linkages) that only fit animals (fit to travel), which meet these Standards and importing country requirements, can be transported to the port of loading for export.

Under Divisions 2 and 3 of Standard 4 of the ASEL there are a number of standards that are relevant to this review. These include:

- S4.3: requirement for a loading plan before loading begins.
- S4.5: accredited stock person must be appointed by the exporter to accompany each consignment.
- S4.6: sufficient personnel must be available at loading and during the voyage to ensure livestock husbandry and welfare needs are met.
- S4.7: on arrival at the port, responsibility for the livestock must be transferred to a competent person nominated by the exporter.
- S4.8: To ensure that only fit and healthy livestock are transported and are loaded on board:
    a) the exporter must arrange for the livestock to be inspected for health and welfare and fitness to travel, immediately before they are loaded onto the vessel;
    b) only livestock that are healthy and fit to travel can be loaded;
    c) any livestock rejected for export must be distinctively identified, and humane and effective arrangements must be made for their removal from the port;
    d) if euthanasia is necessary, it must be carried out humanely and promptly; and
    e) dead livestock must be removed from the port, and carcases must be disposed of in compliance with all relevant health and environmental legislation.
- S4.10: livestock must be loaded onto the vessel by competent stock handlers in a manner that prevents injury and minimises stress
- S4.11: livestock must be presented for loading and penned on the vessel in lines segregated by species, class, age, weight and presence or length of horns.
- S4.12: livestock densities must be in accordance with defined specifications and heat stress risk assessment.

There are additional standards and information in the ASEL that relate to management of animals once they are loaded onto the vessel and these are not considered further in this review.

### 4.6.5 Standards 5 and 6: Onboard management of livestock and air transport of livestock

These sections of the ASEL are not directly relevant to this review and are not considered further.

## 4.7 Australian Meat and Live-stock Industry (Export Licensing) Regulations 1998

The Regulations exist as subordinate legislation under the Australian Meat and Live-stock Industry Act 1997 and set out the requirements that an exporter must meet in order to obtain an export licence.

## 4.8 Export Control (Animals) Order 2004

The *Export Control (Animals) Order 2004* – the Animals Order - exists as subordinate legislation under the Export Control Act 1982. The Animals Order provides the regulatory control for export of live animals and animal reproductive material.

Earlier descriptions of the live export chain and the processes which must be adhered to for export to occur, are outlined in the Animals Order.

Part 2 of the Animals Order relates to export of livestock by sea and there are specific divisions of the Animals Order that deal with topics of direct relevance to this review:

- Division 2.2 outlines the requirements for registration of premises for holding and assembling livestock for export.
- Division 2.4 outlines the Notice of Intent (NOI) to export and related matters including the CRMP and ESCAS requirements.
- Division 2.5 relates to inspection of livestock before export and grant of export permit

Part 4A of the Animals Order relate to accreditation of veterinarians for live-stock export and Part 5 to auditing processes.

There are some specific sections of Division 2.5 that are worthy of note.

Part 2, Division 2.5, Section 2.53 (Health Certificates)

(1) A health certificate in relation to live-stock is a certificate, issued by an authorised officer, that the live-stock meet the requirements of a specified importing country relating to the health of the live-stock.

(2) Before issuing a health certificate for live-stock, an authorised officer:

(a) must inspect the live-stock before they leave the registered premises at which they are held and assembled for export

Section 2.54 outlines requirements for granting of permission to leave for loading. Amongst other things it states the following.

Part 2, Division 2, Section 2.54 (Grant of permission to leave for loading)

(3) If an authorised officer is satisfied that :

…

(g) each of the livestock is fit to undertake the proposed export voyage without any significant impairment of its health

…

(3B) For paragraph (3) (g), an authorised officer may be satisfied live-stock are fit to undertake a proposed export voyage without needing to be assured of the fitness of every individual animal in a herd.

(6) To assess whether the animals are fit to undertake a proposed export voyage without any significant impairment of their health, an authorised officer must have regard to the following matters:

(a) the animals' general condition;
(b) the risk of them being injured by the enclosures or ramps used for loading them onto the ship, aircraft, train or other vehicle on which they are to be carried to the place of export;
(c) the nature of the accommodation for them on the ship on which they are to be transported overseas;
(d) the numbers, species, health and general condition of any other animal to be carried on the same ship;
(e) the conditions that the animals are likely to encounter during the export voyage.

## 4.9 Exporter Supply Chain Assurance System (ESCAS)

In 2011, the Australian Government announced that all exports of livestock for slaughter would be required to supply evidence of an acceptable ESCAS before an exporter can be issued with an approval to export. The legislative control of these procedures was implemented as an amendment to the *Export Control (Animals) Order 2004* in February 2012

The ESCAS is based around the following four principles:
1. evidence of compliance with international (World Organisation for Animal Health) standards for animal welfare;
2. evidence of effective traceability of animals within a supply chain through to slaughter;
3. meet reporting and accountability requirements;
4. incorporate independent auditing.

The ESCAS process has a managed transition period depending on livestock type and destination and the dates by which systems must be in place for each of these combinations, are displayed on the DAFF website[6].

With respect to sheep exports, ESCAS procedures had to be in place by 1 March 2012 for sheep being exported to Kuwait, Bahrain, Qatar and Turkey.

Exports of sheep to several additional countries (Israel, Jordan, Malaysia, Oman, Saudi Arabia, Singapore and United Arab Emirates) must have ESCAS procedures in place by 1 September 2012 and then there are additional countries that must have ESCAS procedures in place by January 2013.

Accountability for performance in the ESCAS system is applied to Australian exporters.

The exporter's supply chain assurance system must include adequate records that account for:
- the numbers loaded onto and unloaded from the ship;
- the number of animals that enter and exit each facility within the approved supply chain;
- the number of non–slaughter mortalities within the approved supply chain;
- the number of animals slaughtered within the approved supply chain; and
- the number of animals on–sold as breeders (the regulatory framework does not apply to breeder animals)

[6] http://www.daff.gov.au/aqis/export/live-animals/livestock/escas

The ESCAS auditing requirement is expected to check supply chain traceability / accounting records to identify whether the system can account for the sheep in the supply chain. Independent audit reports will be completed every two months for the first six months of a new supply chain, and then at a frequency determined by a risk–based approach involving a minimum of three audits per year.

The ESCAS will be expected to provide complete accounting for all animals in an export supply chain until natural death or slaughter. There is recognition that QA systems have to recognise the inherent variability associated with human error but in general there is no acceptable level of leakage of animals from the whole-of-chain system for animals that cannot be accounted for.

While ESCAS has a whole-of-chain application, the area where most procedures need to be developed and implemented is in the period from discharge to slaughter in the destination country or countries. At the time this report was prepared information available on the DAFF website indicated that ESCAS audits would focus primarily on the part of the supply chain beginning with discharge of animals from the ship.

With respect to the scope and objectives of this review the relevant requirements arising from ESCAS are:

- As animals move from the export depot, exporters must verify/ensure that all animals have an NLIS ear tag.
- All animals must be counted onto the ship / aircraft.

These two requirements lay the foundations for the whole-of-chain QA system that is fundamental to the ESCAS.

# 5 Results

## 5.1 Collection of information

The scope of this project was focussed on opportunities for livestock to be inspected and rejected (removed from the export chain). There was particular interest in those opportunities that are managed at the registered premise and at the port.

It was recognised that there is another major inspection and rejection opportunity at the property of origin before animals are loaded onto trucks to be transported to the registered premise. Information about procedures and practices at this point in the chain was collected through discussion with individuals and observation of records and not by personal attendance at any properties.

The project team did not collect detailed observations on practices relating to management of sheep during land transport from property to registered premise. This also reflected the scope of the project and the fact that once livestock are loaded on to a truck, there are no opportunities for rejecting animals (sorting, inspecting and removing individual animals from the export chain).

The major focus for the project was on observation of practices that occur either at the registered premise or at the port.

One of the project team members travelled to Adelaide (one trip) and Fremantle (three trips) to attend either the registered premise and/or the port. Visits were timed to coincide with either sheep arriving at the registered premise following transport from a property of origin (receival), loading sheep on to trucks to transport them to the wharf to load onto the ship (loadout at premise), and attending the wharf when trucks arrived at the wharf to unload sheep and load them onto the ship (loading at port). An attempt was made to try and attend receival, loadout at premise and loading at port for more than one exporter, more than one registered premise and more than one ship, in order to increase confidence that the findings may be considered as representative of industry practice.

No visits were made to Victoria during this review. All information about procedures at registered premises and at the port in Victoria were obtained from discussions with AAVs and exporters who have direct experience with systems in Victoria.

Initial discussions with industry representatives indicated that most sheep exports through the Fremantle port are conducted by one of three exporters. All three exporters were contacted and where it was not possible to attend a registered premise and wharf for any reason, an attempt was made to determine if the general processes were similar to those for other exporters.

During the visits, team members also approached a range of individuals to seek input on matters relating to the objectives. These included representatives for exporters or companies involved in procurement or preparation of sheep intended for export, AQIS officers, AAVs, stockpersons, stevedores and state government personnel. Other individuals were contacted by phone or email.

Data on retrospective voyages involving sheep being loaded from Fremantle has been sought from three exporters.

Information on some aspects of sheep inspection and rejection procedures was dependent on advice from individuals and was not based on direct observations by project team members.

The following visits were completed:

- Adelaide:
    - Voyage 1
        - Registered premise 1 on a day when sheep were being loaded onto trucks to be transported to the Adelaide port.
        - Adelaide port on the same day to observe sheep being unloaded onto the wharf and then loaded on to the ship.
- Fremantle
    - Voyage 1
        - Registered premise 2 on a day when sheep were being loaded onto trucks to be transported to the Fremantle port.
        - Fremantle port to observe sheep being unloaded from trucks and loaded onto the ship.
        - Note that this was the same ship that had picked up sheep in Adelaide and then sailed to Fremantle to load additional sheep for the same voyage.
    - Voyage 2
        - Registered premise 3 on a day when sheep were being unloaded at the feedlot following transport from vendor properties.
        - Registered premise 3 on a day when sheep were being loaded onto trucks to be transported to the Fremantle port.
        - Fremantle port to observe sheep being unloaded from trucks and loaded onto the ship.
    - Voyage 3
        - Registered premise 2 on a day when sheep were being unloaded at the feedlot following transport from vendor properties.
        - Registered premise 2 on a day when sheep were being loaded onto trucks to be transported to the Fremantle port.
        - Fremantle port to observe sheep being unloaded from trucks and loaded onto the ship.

Consideration of ASEL and other relevant information summarised in the review section indicated that there are three main sites where there are opportunities for inspection and rejection of sheep during the part of the export chain from the vendor property to the port. These are at the vendor property prior to loading of the truck to transport sheep to the registered premise, at the registered premise (either at time of receival or at any time up loadout at the premise), and at the port. These are described separately.

## 5.2 Inspection and rejection at the vendor property

Information on this process was gathered in discussion with representatives from licenced exporters or other organisations involved in procuring or preparing sheep for export.

Discussions with several exporters identified the same general pattern for sourcing sheep for export. Each exporter will generally work closely with a relatively small number of buyers who regularly act as agents in purchasing sheep from vendors on behalf of the exporter.

Following agreement with an importer to prepare a consignment of sheep for export, the exporter is obliged to submit the NOI and CRMP and where appropriate ESCAS documentation to AQIS.

The exporter will also provide to its buyers a target list of sheep along with relevant specifications and on-farm requirements that can be used to determine suitability for export. These requirements will vary depending on the importing country protocols and importer specifications. Some exporters may send information concerning sheep requirements for a forthcoming voyage to livestock agents as well the buyers who generally operate for the exporter.

Buyers are then expected to seek out sheep that meet the target numbers and specifications. Buyers will work with potential vendors to ensure that sheep that are purchased for delivery to the registered premise are compliant with all requirements as outlined in ASEL Standard 1. Vendors will be involved in on-farm inspection and rejection of animals that do not meet these requirements. In some cases buyers may participate in on-farm inspection of sheep and may also be directly involved in inspection and rejection processes including drafting of animals to remove rejects.

All livestock must be managed on-farm and during transport to be compliant with state and territory requirements as outlined in state legislation and codes of practice. All sheep must have a correct NLIS ear tag inserted prior to being moved off the vendor property to the registered premise and all sheep movements must be accompanied by a correctly completed National Vendor Declaration (NVD/Waybill) form. These practices constitute compliance with Standards 1.1, 1.3(a) and (b), and 1.4.

In some cases, depending on the class of sheep and the import protocol, there may be requirements for additional procedures. During the course of this review project team members observed sheep that had been vaccinated against scabby mouth in compliance with protocols for export to Saudi Arabia, and female sheep that had been pregnancy tested and declared to be non-pregnant.

Vaccination against scabby mouth must have been administered by a trained vaccinator on two occasions within defined windows of time prior to the sheep being transported to the registered premise. At the second vaccination, the vaccinator mouths the sheep to ensure compliance with Saudi age restrictions and also inserts a numbered ear tag that identifies individual sheep as having been vaccinated against scabby mouth.

Where there is a requirement for pregnancy testing to certify animals as non-pregnant, the operator is responsible for inserting a numbered ear tag to individually identify each animal that has been tested and declared non-pregnant.

The scabby mouth vaccination and pregnancy testing examples are considered to be examples of compliance with Standard 1.3(c) of the ASEL.

There are strong incentives for vendors to manage and provide sheep that do meet all requirements as outlined in the ASEL. Failure to comply with state and territory legislation and relevant codes of practice may result in a variety of actions by state or territory authorities including fines or prosecution.

In addition there are commercial incentives since rejection of animals at receival (when sheep are unloaded at the registered premise) may mean that the vendor either does not get paid at all or receives only a reduced purchase price for those animals. All exporters indicated that they do regularly provide feedback to buyers and vendors, particularly about sheep that may not meet expected specifications when they arrive at the registered premise and that this mechanism is effective at ensuring that vendors do provide sheep that meet specifications.

It is understood that there may also be occasions when sheep are sourced by the exporter out of commercial / public saleyards such as those at Muchea and Katanning in Western Australia. Sheep are only purchased from the saleyards when adequate documentation is available to ensure that the property of origin is suitable for export. All three exporters purchase sheep through saleyards but estimates varied from 0–10% of any consignment which might be sourced through this route. Delivery of the sheep at the saleyards implies that they were fit to travel under the Land Transport code of practice.

## 5.3 Inspection and rejection on arrival at the registered premise

Sources of information that have contributed to the description in this section include discussions with exporters and staff at registered premises, review of operations manuals for registered premises, and direct observation of receival and inspection procedures at two separate registered premises in Western Australia.

The driver of the vehicle has responsibility for livestock loaded on that vehicle during the journey and passes the responsibility to the manager or other delegated person at the registered premise when animals are unloaded. Documents that accompany the livestock to the registered premise include the NVD/waybill and a range of additional documents that may include certificates or declarations relating to scabby mouth vaccination and pregnancy testing. In some cases there may be additional documents including health declarations and a travel plan or other declaration made by the transport driver.

Receival for a voyage is a tightly organised process that takes place over a relatively short time (one to three days) depending on the number of sheep arriving. The exporter will arrange with the registered premise to ensure sufficient experienced stockpersons are on hand to manage procedures.

When a truck arrives at the registered premise the required documentation (NVD/waybill, travel plan if required, health certificates or other declarations if required) is checked and livestock will only be accepted if the documentation is complete and in compliance with the CRMP.

All livestock are unloaded as soon as possible after arrival at the registered premise. All premises that the project team attended had a total of four to six unloading ramps that can be used simultaneously. Each ramp had an under and over design to allow simultaneous unloading of lower and upper decks from one truck. These design characteristics allow multiple trucks to unload at the same time.

In accordance with the ASEL, sheep are grouped for transport by age groups, size and often by gender or other classifications.

The truck driver is responsible for opening pens on the trailer and encouraging sheep to exit the trailer and proceed down the unloading ramp.

There are then multiple individuals with specific tasks within the registered premises.

At the base of each loading ramp there is a team of two individuals, one responsible for counting sheep off the truck, and the other responsible for inspection of individual sheep as they come off the truck (yard-inspector). The yard-inspector typically stands in the pen that sheep are coming into from the truck so that the inspector can watch sheep as they come down the unloading ramp into the first pen where the inspector stands. Rejects are marked with raddle or spray paint immediately and any animal that is having difficulty moving is removed at that point and placed in a small holding pen near the unloading ramps. There are then additional individuals responsible for progressively moving sheep away from the unloading pens and towards the drafting race. Sheep are maintained in their truck cohorts until drafted.

Sheep are counted as they are unloaded and the count checked against documentation carried by the driver (NVD/waybill or other documents). Each truck can unload completely into a series of pens which allow the animals to be kept isolated from other animals being unloaded from other trucks, as well as keeping individual groups in the consignment separate. In the case of a dispute the animals are re-counted while the transport driver is still there.

Yard inspectors at the unloading ramp may be acting as agents for the customer or employed by the exporter or staff from the registered premise. This inspection is conducted to ensure that sheep are compliant with ASEL standards and the CRMP. Inspectors will check identification of livestock, health status (general health, specific conditions identified in the ASEL and any specific testing requirements required for a specific consignment), welfare status and general compliance with specifications.

At one registered premise visited by the project team it is routine practice for the individual animal inspection at receival to be conducted under the direction of experienced inspectors employed by the customer (the importer) and not by the exporter or the registered premise. This process was identified as providing an additional level of quality assurance by separating inspection responsibilities from the exporter or registered premise operator. An additional exporter described the same process but due to shipping schedules no receival was observed by the project team for this exporter during the information collection process for this review. At other premises the inspections may be conducted by individuals acting for the exporter or the registered premise. A key point is that all registered premises have individuals acting as yard inspectors are receival and there was clear acknowledgement of the important role being played by these inspectors in assessing each animal at receival and rejecting animals that do meet ASEL requirements.

Sheep are then moved to a drafting race in the same yard complex but further from the unloading ramps. The yard complex has at least one additional yard-inspector manning the drafting gate and on occasion another inspector may be examining animals in the race. Sheep will then be drafted to remove any rejects that have been identified at unloading or as they progress through the drafting race.

Drafting may also be used (at this time or at a later time) to separate animals based on a range of other criteria that are not related to inspection and rejection processes. For example, sheep are often classified by liveweight into categories (A,B,C,D), and animals with longer wool may be separated and moved to the shearing shed for shearing.

The total count of animals that is unloaded from any truck is then assigned and recorded under various categories including received animals (pass the initial inspection and are accepted into the registered premise), deaths (animals that are dead on arrival) and rejects. Animals that were severely injured or diseased were directly observed to be assessed immediately, euthanased where appropriate, or marked with spray-marker and subsequently separated into a hospital pen for further management and treatment if necessary.

Review of the operations manual for the registered premises that were visited indicate that rejects are identified using criteria outlined in the ASEL. All premises record counts of rejects but each registered premise appears to have similar but not necessarily identical methods for recording these data and in particular there appears to be some variability in the number of categories used to record rejects. Generally the most common categories of rejects will be recorded separately and then there will be additional non-specific categories (health condition, out of consignment). Examples of specific categories include pink eye, scabby mouth, lame, downer and poor (or excessive) condition. It is also common practice to identify animals that do not meet gender specifications (ewes or rams in a wether line for example).

Some animals that are rejected on receival may have been rejected because they were not compliant with the market specifications for the intended voyage or because they were suffering from a condition listed in the ASEL that is considered likely to resolve within a relatively short period of time (either with or without treatment). Examples might include animals that do not meet liveweight specification, and conditions such as pink eye or scabby mouth where the animals must be rejected at the time but where they are likely to resolve over time. These animals are often described as carry-over animals, are held separately from other accepted consignment animals and may then be incorporated into a subsequent voyage consignment.

Animals that are classified as rejects and that are not moved into the carry-over group are permanently identified by application of paint spray, raddle or paint brand. They are assessed and treated if required (including euthanasia). They are then held separate to the other consignment animals and are removed from the registered premise as soon as possible. Carcasses are removed from the unloading facility as soon as possible for disposal.

Farmer (2011) describes assessment for suitability for export as mainly taking place on the vendor property to ensure that animals that are sourced for export are in fact compliant with all requirements as outlined in the ASEL (including purchaser specifications and any local/state/national requirements including those concerning health and welfare, and any on-farm health or treatment certifications).

All animals that leave the vendor property should meet suitability criteria (any criteria outlined in the ASEL that can be applied to animals before they depart the vendor property).

The inspection processes that occur on arrival at the registered premise provide an opportunity for the exporter to rigorously check individual animals to ensure that the on-farm suitability selection process was conducted appropriately. There are expected to be a small number of rejects on arrival at the registered premise that reflect the effects of the journey. These are sheep that have been injured or that have developed a condition during the journey that warrants rejection. There are expected to be some animals identified and rejected at arrival that may be considered to have missed an opportunity for rejection at the vendor property prior to loading for transport. These include animals that are not suffering from any condition at all but are out of specification (ewes in a wether consignment, underweight animals that are otherwise healthy). In some cases these assessments may reflect differing subjective interpretations of the same animal between the vendor and the inspectors at arrival. It is noted that individuals operating as inspectors at the registered premise are generally very experienced stockmen with the ability to accurately assess body condition and liveweight from visual appraisal of animals. While the project team was present at the registered premises we experienced inspectors checking weighbridge records for average weights of truckloads of sheep to check and refine their own estimations of liveweight from visual appraisal of the same sheep.

It was also apparent on discussion with staff at the registered premise that there is a rapid and effective feedback loop where information is immediately conveyed back to the relevant individuals if sheep are presented at the premise that do not meet specification. Buyers and agents are provided with information on requirements that is based on the ASEL and in many cases is supported by requirements for declarations from vendors to support compliance with these standards.

Exporters will also ensure that transport operators (drivers) with responsibility for livestock during land transport, receive information about requirements in the ASEL that relate to land transport of livestock being prepared for live export.

Any consignment that is unloaded and that has more than an occasional unsatisfactory sheep will immediately be followed by contact with the buyer in particular and occasionally the vendor. The buyer is then asked to contact the vendor to ensure information proceeds to the vendor. Animals that are rejected at arrival at the registered premises may be removed from payment calculations altogether (not paid for at all) or may be paid for at a different and lower rate compared with those animals that are accepted into the premise. It is noted that these situations relate almost exclusively to market specifications and not welfare issues. These factors exert considerable market pressure on the vendors to provide animals that meet all required specifications.

Although not observed during any of the receivals attended by the project team, one exporter noted that on occasion high levels of unsuitable sheep (particularly those presenting with infectious conditions such as pinkeye or scouring) may be identified early in the unloading process. Unloading of the truck is discontinued and sheep inspected on the truck and immediate contact made with the vendor or buyer. If it appeared that many of the sheep on the truck were affected the entire truck could be rejected. This may result in the animals on the truck being returned to their property of origin (or other suitable destination) if they were fit to travel. Animals which had already been unloaded were marked and excluded from the export process. It is noted that animals that have

been unloaded at a registered premise are not permitted by DAFWA to be removed to any other property in Western Australia though they may be removed direct to slaughter.

All animals that pass the inspection process on arrival at the registered premise may then be considered to meet suitability criteria at that time. A number of characteristics (breed, sex, age) will not change over time, while others such as body condition, weight and health status, may change. This means that once sheep have passed their individual animal inspection on arrival, they must then be monitored and inspected to detect any change in their health status that may indicate a condition that meets rejection criteria. Examples may include loss of weight, inappetence, development of pink eye, enteritis, etc. Continual monitoring is then important in detection of any condition that may impair the ability of an animal to undertake an export voyage without any significant impairment of health.

At one registered premise the exporter is cooperating with Murdoch University in the conduct of trials for feeder sheep. In this case randomly selected groups of animals were observed being drafted, condition scored and aged (normally based on ear tag colour) and having RFID ear tags applied before being moved into a shed that had been modified to allow RFID tags to be read as animals approached feed and water troughs. This industry funded project is providing useful information about sheep behaviour and in particular factors that may be associated with normal or abnormal feeding behaviour. Although not related to ASEL requirements at all, the data collected by this project is likely to provide a very high quality sample of animal outcomes during the time they are in the feedlot prior to export.

While the project team did not attend registered premises in South Australia or Victoria during receival as part of this review project, one of the authors (NP) has previously attended registered premises in both states during the conduct of an MLA-funded project (LIVE.123) that assess causes of mortality in live export sheep. In addition the project team held discussions with various individuals at a registered premise in South Australia while attending later processes (loadout) and were able to obtain general descriptions of processes. These inputs indicate that the inspection and rejection procedures applied at receival of sheep at registered premises are largely the same regardless of whether the premises are in Victoria, South Australia or Western Australia.

## 5.4 Inspection and rejection while sheep are housed at the registered premise

There are multiple opportunities for inspection of sheep while they are housed at the registered premise.

Staff at the registered premise inspect all livestock on a daily basis in accordance with ASEL Standard 3.16. Many pens or paddocks of animals will actually be under some level of inspection more than once each day as staff go about their daily duties in providing care for livestock and maintaining and checking facilities and other duties. Sick or injured livestock are identified, isolated and treated on a daily basis. Staff are aware of the requirements stipulated in the ASEL.

Daily inspections are recorded as are records of sick or injured livestock and mortalities.

If there are mob (pen, paddock or consignment) level concerns then additional interventions will be initiated. A pen or paddock of animals may be run through a drafting race to draft off healthy and affected animals and allow isolation and separate management (and treatment if necessary) of affected animals. Veterinary attention will be sought if required to treat animals.

If livestock are rejected from a consignment during the assembly period they are held separate to the rest of the consignment. Records are kept of reject livestock leaving the premises – typically to a knackery.

Operations manual entries for registered premises outline procedures to follow in the event of an outbreak of disease or elevated mortalities that include isolation of affected animals, appropriate investigation (veterinary examination and post mortems if required) and treatment of affected animals, and notification of state authorities and AQIS officers.

Discussions with AAVs indicated that the AAV expected to arrive at the registered premise for the first time during an assembly period to conduct the flock inspection procedure as required for the AHCPLL. If the AAV is required in the AEP to carry out additional procedures (inspections or testing) these may require other visits by the AAV to the registered premise. Registered premises may also use the services of a local clinical veterinarian to perform disease investigations or treat animals.

In addition, discussion with AQIS veterinary officers indicated that the AQIS veterinary officer may visit the registered premise to inspect sheep during the assembly period, separate to the formal requirements for inspection by an AQIS officer as part of the Application for Health Certificate and Permission to Leave for Loading. AQIS officers in Western Australia and South Australia indicated that it was common for an AQIS officer to attend the registered premise at least once prior to the inspection conducted as part of the AHCPLL.

The following sections deal with specific inspection procedures that take place at the registered premise, firstly as part of the requirements for granting of permission to leave for loading, and secondly inspection that occurs at the registered premise immediately before sheep are loaded on to trucks to be transport to the port.

Both the AAV and an AQIS officer are required to inspect livestock at the registered premise before granting of permission for leave for loading.

Requirements for inspection by the AAV are stipulated in the AEP. The AHCPLL must be completed and signed by both the AAV and the exporter. The AAV signature on this form relates to a declaration that the livestock preparation has been undertaken in accordance with the AEP.

There is then a further opportunity for inspection and rejection when sheep are yarded in preparation for loading onto trucks to be transported to the wharf.

The nature of these inspections appears to vary a little between states.

### 5.4.1 South Australia

In South Australia, the project team was present at the registered premise on the day when sheep were being loaded on to trucks to be transported to the port. Discussion with the AQIS officer and the AAV provided information about procedures for the inspections conducted prior to permission to leave for loading. These inspections had taken place the day before loadout started.

The AAV and the AQIS officer tend to be at the registered premise at the same time and may perform some of the activities together.

There were no elevated and enclosed sheds for housing sheep on feed during the assembly period at the registered premise that was visited in South Australia and this is understood to be the case for all registered premises in Victoria and South Australia. This is a point of difference to the situation in Western Australia where most registered premises are understood to have elevated sheds for housing sheep on feed.

The registered premise attended in South Australia had a limited number of pens that were under a roof (with open sides) where sheep could be provided with shelter while on feed. However, almost all sheep are routinely housed in paddocks.

The inspection process involves the AAV and AQIS officer driving through paddocks in a vehicle to inspect sheep. They may get out and walk through paddocks or to inspect a particular situation in more detail. This process is referred to as a flock or mob level inspection and is not aimed specifically at detecting individual animals that may not be fit for export. The approach is to examine a flock of sheep and look for evidence that sheep are generally healthy based on their appearance and behaviour and evidence of feed having been consumed. Flock level concerns are based on identification of multiple animals that show abnormal or undesirable signs (hollow flanks or loss of condition, inappetence, diarrhoea, pink eye, general illness or other signs that may be consistent with rejection criteria outlined in the ASEL).

Inspection of the ground surface and feed troughs may also provide indications of problems such as diarrhoea and reduced feed intake.

In general, it is considered that an inspection that is based on a drive past or a drive through paddocks of sheep is likely to be less effective than an inspection that is based on the inspector walking through every paddock and checking animals. The project team was not present when AAV and AQIS inspections were being conducted in South Australia and the information in this review is based on discussions with the AAV and the AQIS Officer.

Where there are concerns that there may be a flock problem, feedlot staff may be notified and the flock (entire paddock of sheep) can be brought into the yards for closer inspection. A variety of options may then be applied including further clinical examination, collection of samples for testing and drafting animals to remove affected animals or animals that meet rejection criteria. In some cases it is understood that an entire paddock may be withdrawn from the export chain.

It is noted that the flock inspection at the South Australian premise is generally conducted immediately prior to an individual animal inspection. If animals are noted in the flock inspection that may have an issue of concern (some pink eye cases or loss of condition), the affected paddocks are noted so that these issues can be re-visited during the subsequent individual animal inspection.

In the particular instance when the project team member visited the premise the timeline was as follows:

- AAV & AQIS officer perform flock inspection at the registered premise on Tuesday beginning in the morning;
- AAV begins individual animal inspections at the registered premise on Tuesday afternoon;
- AQIS officer remains at registered premise during Tuesday afternoon and performs a check of animal identification, scabby mouth ear tags, mouthing of some sheep to ensure compliance with Saudi protocol, and checking of vendor details and NVDs;
- Loading of trucks at registered premise begins early Wednesday morning to transport sheep to the Adelaide port;
- AAV continues individual animal inspections at the registered premise on Wednesday until all sheep are processed prior to loading onto trucks at the registered premise. If necessary this process will continue into Thursday.

Following completion of the flock inspection and on the afternoon of the same day (Tuesday), sheep were brought into the yards to be processed through an individual animal inspection, conducted by the AAV and additional stock inspectors under the supervision of the AAV. The intention in this process was to complete individual animal inspections on some of the sheep in the afternoon of the Tuesday so that they could be held overnight and then prepared for loading onto trucks early the following morning. The AAV team (AAV plus an additional inspector) then returned to the registered premise early on the Wednesday morning to continue inspections of the remainder of the sheep held in the registered premise.

The project team attended the registered premise on the Wednesday morning between about 6:30 am and 11:30 am. There was a steady stream of trucks presenting empty to the premise and being loaded with sheep at any one of the six loading ramps. Stock handlers were counting sheep into forcing pens close to the loading ramp so that trucks could be loaded as efficiently as possible. Sheep that were being moved into small pens adjacent to the loading ramp and then loaded onto trucks had just come directly from the individual animal inspection process being conducted by the AAV. Loading of sheep onto trucks was conducted by a combination of staff from the registered premise and truck drivers. These individuals are aware of the requirements for animals to be fit to load and the need to remove animals from the supply chain if they were unfit to load or transport (based on the Australian Animal Welfare Standards for the Land Transport of Livestock). This reflects the continual inspection and rejection scrutiny that livestock are under during each step along the chain.

While trucks were being loaded with sheep that had already been individually inspected, additional sheep were being brought into the yards and being presented for individual animal inspection. Once sheep had passed through the inspection process they moved towards the loading ramps to be prepared for loading onto trucks.

The drafting race used for individual animal inspections is depicted diagrammatically in Figure 1. This race was located in the same sheep yard complex but further away from the loading pen area. Sheep were moved from paddocks into the yards and then moved into successively smaller yards leading towards the drafting race. Ultimately sheep were moved into the triangular forcing pen shown in Figure 1 that narrowed down to funnel animals into the drafting race.

There were two inspectors – the AAV and a second inspector understood to be working as a sub-contractor to the AAV. These two individuals stood on either side of the small forcing pen leading to the drafting race. The forcing pen had sold sides so the inspectors were observing sheep over the top of the fence as they moved forward in the forcing pen.

The two inspectors moved back and forward a little and helped to encourage sheep into the drafting race and to get a better view of any sheep on occasion.

Each inspector carried raddle to mark reject animals. Most of the time the inspectors were viewing sheep in the forcing pen as they approached the entry into the drafting race. Animals were not moving in single file but they were being narrowed towards single file and once they entered the race they were typically moving in single file. The combination of two inspectors (one standing either side of the narrowing end of the forcing pen) meant that there was an opportunity to view both sides of sheep.

Once animals entered the drafting race proper they were moving in single file but by then they had largely moved beyond the inspection and were then moving towards the drafter whose role was to separate those animals that had already been marked by the inspectors as rejects.

Raddled animals were drafted out leaving the main flow of sheep to move forward towards the loading ramps.

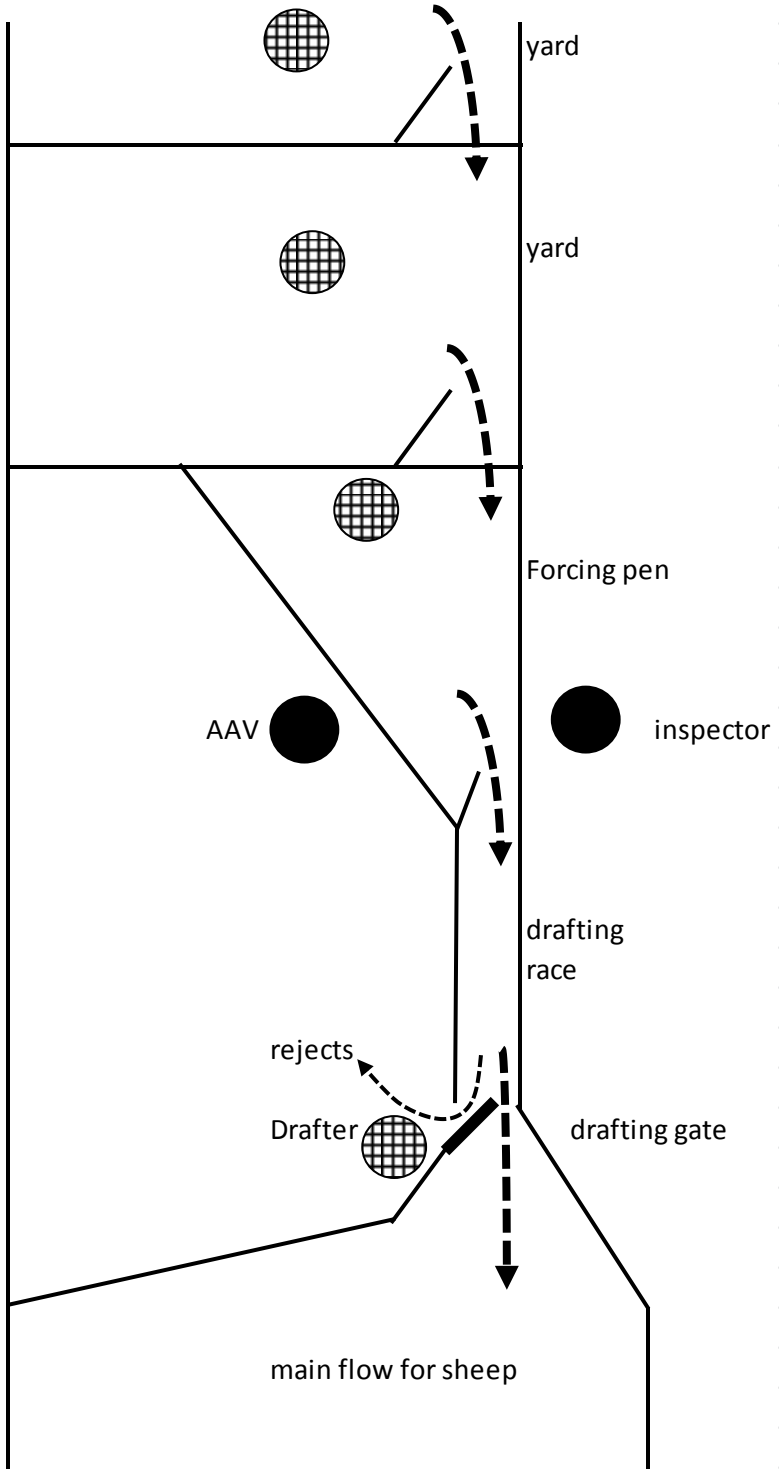


**Figure 1: Diagram (not to scale) of the approximate layout at the South Australian premise for individual animal inspection. Hatched circles indicate stock handlers and solid circles indicate the AAV and second inspector. Arrows indicate direction of flow of sheep.**

The conditions at the time the observations were made were favourable. It was a mild day with overcast conditions and light winds. There wasn't a lot of dust but the inspectors were visibly coated with dust and the general movement of large volumes of sheep on a natural soil surface would be expected to raise some dust. During the period when observations were made the inspection process was halted to allow the forcing pen where inspections were being conducted and the yard behind the forcing pen to be hosed down to minimise dust and this did have an appreciable beneficial impact on the ease with which sheep could be viewed without interference.

The AAV indicated that they were identifying animals using criteria outlined in the ASEL for rejection. The AAV also indicated that typical rejection rates were around 1-2% and occasionally higher. During the period when the project team were observing, team members counted 150 animals proceeding through the race and during this period 2 animals were rejected (1.3%). The 150 animals took about 2 minutes to pass through the race, consistent with an overall processing rate of about 4500 sheep per hour. This is not considered to be a representative estimate of overall rejection rates because it was a single, small sample but it is consistent with the general indication provided by the AAV.

The project team observed the individual animal inspection procedures for more than an hour. The inspectors appeared to have a reasonable view of sheep as they passed through the forcing pen and into the race. However, during the period when we were observing the process, there were almost always multiple sheep moving together in the forcing pen meaning that it was not usual for inspectors to obtain a clear and unimpeded view of an entire animal as might be expected if animals were to move past an inspector in single file.

The head and upper body were observed to be the parts of sheep that were most likely to be consistently and reliably viewed on all individual animals as they passed the inspectors. There was also a good view of the rear end of most sheep as they passed the inspectors.

Conditions involving the lower limbs and abdomen would seem to be more difficult to reliably view on all sheep. Animals that had severe gait changes as a result of musculoskeletal conditions (injuries) or nervous system conditions would be expected to be clearly identifiable even though the inspectors may not have had a clear view of a lower limb lesion, because of the changes in gait including movement patterns of the head and upper body.

Inspection of the list of rejection criteria indicates relatively few conditions that might affect ventral body or lower limbs only (mild lameness, swellings of soft or bony tissues, skin lesions or wounds that were restricted to the lower body and conditions involving the pizzle in male sheep). The ASEL list also stipulates general requirements such as animals that fail to meet protocol requirements (such as sex or tag number). These suitability requirements are unchanged from the time of property selection and they will already have been checked at the time of receival. There were instances of ewes being detected and rejected from a line of wethers while the project team were observing the process. When the project team observed detection of ewes it appeared that they were detected by viewing the rear end of sheep and not by viewing the ventral abdomen since the inspection process really did not allow a view of the ventral abdomen.

The individual animal inspection process observed by the project team at the registered premise in South Australia, does not provide a consistent and reliable view of all relevant parts of every sheep.

At its best it is capable of providing this sort of view but most of the time, the inspectors are viewing part but not all of sheep as they move past the inspectors.

The AQIS officer indicated that on the Tuesday afternoon, following completion of the flock level inspection of the registered premise, the AQIS officer had undertaken additional inspection procedures. These included checking a sample of sheep to ensure that they were all able to be identified to the property of origin. In addition some sheep were mouthed to ensure that they met importing country requirements relating to age restrictions. The AQIS officer then checked vendor and PIC details on NVDs. All of these activities may be done in conjunction with activities that the AAV is undertaking or as separate activities occurring around the same time.

### 5.4.2 Victoria

The project team did not travel to Victoria during this review. However, the AAV who was present at the premise in South Australia indicated that he also routinely performed similar activities for livestock being prepared for export in registered premises located near Portland in Victoria.

Caution is urged in interpreting information about Victoria systems because the project team was not able to attend and directly observe procedures in Victoria. However, the fact that we were able to discuss processes directly with the AAV who is involved in inspection procedures both at the registered premises and at the port in Victoria does provide confidence in our representation of processes.

The following information about Victorian systems was obtained by discussion with the AAV while he was undertaking inspections at the registered premise in South Australia.

At registered premises near Portland, a similar general process for inspection is undertaken as has been described above for South Australia. The receivals process is very similar and the inspections conducted for permission to leave for loading are also similar.

The AAV indicated that individual animal inspections in Victoria were conducted at the registered premises immediately before sheep were loaded onto trucks but using a slightly different system to that described above for South Australia. The AAV indicated that a team of 4 inspectors was used in Victoria. Inspectors worked in teams of two, with two inspectors being present in a smaller, rectangular yard and walking through the sheep to channel the sheep between the two inspectors (running from one end of the yard to the other end).

Sheep were then inspected as they moved between the two inspectors. Any rejects were marked with raddle or spray and were then manually removed from the pen by people employed as catchers by the exporter.

The AAV indicated that he felt that the Victorian system offered a superior view of individual sheep to that obtained in the South Australian approach. The drawback of the Victorian system was that there was no drafting race in the part of the yards where the inspections were conducted so marked sheep had to be manually removed.

In contrast the South Australian system was able to be conducted in a part of the yards where there was a drafting race which made removal of marked sheep easier.

### 5.4.3 Western Australia

A project team member attended one registered premise in Western Australia on a day when the AAV and AQIS officer were conducting inspections as part of the requirement for the application for permission to leave for loading. In addition a project team member attended two different registered premises in Western Australia on days when sheep were being brought into the yards and loaded onto trucks to be transported to the port. Additional information was obtained by discussion with staff at the registered premise, exporters, AAVs, AQIS officers and state government staff.

The two premises attended by project team members in Western Australia are operated as separate entities associated with different licenced exporters. Both premises have very similar general designs with multiple, under and over unloading/loading ramps leading directly into a sheep yard complex. Adjacent to the sheep yards are multiple, raised sheds each containing two rows of pens with slatted flooring and feed and water troughs located on either side. Each registered premise also has a shearing shed located close to the yards. The premises also have multiple paddocks where sheep can be held on pasture, with feed troughs for additional feeding as necessary. There is a weighbridge located on the entrance road to each premise. The use of raised sheds for housing sheep on feed during preparation for export is a practice that is understood to be limited to Western Australian operations and is not currently being used in South Australia or Victoria.

Both the AAV and an AQIS officer conduct inspections of the sheep in the registered premise prior to granting of permission to leave for loading. The inspections are separate processes and typically the AAV visits the registered premise and completes an inspection before the AQIS officer visits. However, discussions with an AAV indicated that on occasion both the AAV and AQIS officer may be present at the registered premise at the same time and may conduct part of their inspection together. In terms of official timing, the AAV is expected to complete an inspection and then both the AAV and exporter sign the AHCPLL form which is then submitted to AQIS for approval. The AQIS officer then completes an inspection and permission to leave for loading will be granted if all requirements have been completed in accordance with the AEP and ASEL and any other conditions.

The AQIS officer will be expected to check a list of vendor details (vendor, PIC, address) against records and also check that sheep are identified appropriately. Compliance with health certification for scabby mouth vaccination or pregnancy testing certification will also be checked.

The AAV indicated that in the normal course of events, attending the registered premise to conduct the inspection as required for the AHCPLL would be the first time that the AAV would visit the registered premise for that consignment. If the AAV were required to conduct additional procedures these would be expected to be defined in the AEP and additional visits or activities would then be arranged.

When the AAV visits the premise to conduct the inspection for the AHCPLL, it is routine practice for the AAV to inspect all sheep being prepared for that voyage, i.e. every pen and every paddock where sheep are being held. This is done by walking through every shed and inspecting sheep in every pen. Paddocks are generally inspected by a combination of driving and walking because of the additional distances that must be covered to view all paddocks. The approach is to examine sheep at the flock level and look for evidence of flock issues. The inspection is not aiming to detect an individual sheep that may have a problem. Instead it is aimed at detecting those pens or paddocks where there may be multiple sheep with a similar problem, indicating that there is a problem with that mob or flock.

This approach is similar to the flock inspection approach described for South Australia though there do appear to be some differences that suggest that the inspection process as conducted in Western Australia may be more thorough than that described for South Australia. Both the AAV and AQIS inspectors indicated that they tend to conduct inspections separately in Western Australia with the AAV inspection preceding the AQIS inspection. Both also acknowledged that they may be in attendance at the registered premise on the same day and that some activities may be conducted together. Both the AAV and AQIS inspectors indicated that the checked every pen and every paddock and both indicated that they do this largely by walking with vehicular transport being used to travel to and between paddocks and that inspections are not conducted from a vehicle. Finally, it is likely that a walk through a pen of sheep will result in a closer inspection of sheep and the immediate surroundings (floor, faeces, feed and water), than is obtained from a walk through a more extensive paddock situation.

This review has not attempted to define in detail every aspect of sheep appearance and behaviour that is considered in the inspection process. A brief discussion of the approach is provided here. In a healthy mob of sheep all animals would be expected to appear bright and alert, to move easily when disturbed or to show normal behavioural characteristics when undisturbed (moving normally, feeding, chewing cud, etc). Sheep that are eating well should not show a hollowed out appearance in the flanks which may suggest an empty rumen and reduced feed intake. Sheep may be classified as abnormal if they appear depressed or lethargic, show signs of reduced feed intake (hollow flanks or poor condition) or other signs consistent with disease.

There are specific problems that the AAV will look for because these conditions are known to occur at times in sheep being prepared for export and the conditions are listed in the ASEL rejection criteria (Standard 3). The AAV will specifically look for signs that may be consistent with these conditions and particularly those conditions that may be more likely to present in multiple animals. Examples include evidence of pink eye and scabby mouth, signs of diarrhoea (staining on rear ends and legs, presence of soft faeces on the ground). Sheep that are unwell may form a tail of the mob (be separated easily, move much more slowly, appear more depressed).

During the course of the inspection the AAV would normally expect to have discussions with the exporter, and the manager or other staff at the registered premise. In addition the AAV would normally view records of the daily inspections of sheep during the assembly period including the mortality records since this information may provide an indication of whether there might be a flock health problem or any other problem that has occurred or may be developing within some sheep at the premise.

Where the inspection indicates that the sheep appear healthy and display normal behaviour, the AAV completes the inspection and signs the relevant document (AHCPLL).

The AQIS officer would then be expected to conduct a similar inspection at the same registered premise. It is understood that the AQIS officer would similarly inspect all sheep being prepared for the particular voyage at that premise, by walking through every shed and visiting every paddock that contain sheep being prepared for that voyage. The officer would also be expected to engage in discussion with a similar range of people (exporter and staff from the registered premise) where appropriate and to view the records concerning daily observations at the premise and any other information relevant to the consignment. The AQIS officer would then receive the completed

AHCPLL and if all requirements and conditions had been met to a satisfactory standard the officer would complete the Permission to Leave for Loading form.

The following sections discuss how different issues that may be detected during the above inspection processes may be managed.

It is noted that the staff at the registered premise are in very close contact with sheep being prepared at the premise and there are opportunities for any problems to be detected and managed prior to the inspections by the AAV and AQIS officer. Review of the operations manuals for the two premises indicate that there are procedures for dealing with health issues. At any point, a mob may be run into the yards and inspected more closely by stock handlers and animals with problems may be separated and classified as rejects and treated as appropriate.

It is not uncommon for a range of relatively minor issues to be detected and dealt with during the inspections being conducted by the AAV and AQIS officer.

If some animals are observed in a pen or paddock that have conditions that are listed in the rejection criteria in the ASEL, then typically these would be seen first by the AAV since the AAV inspection generally precedes the AQIS officer inspection. The AAV indicated that he would normally bring this to the attention of the manager of the registered premise and he would normally also bring the matter to the attention of the AQIS officer. This may include noting some animals in a pen or paddock that have pink eye or scabby mouth. There will then be an undertaking by staff at the premise that the affected animals will be removed either by running the affected pen or paddock in at that time and drafting them to remove rejects, or by undertaking to complete this drafting process when animals are yarded in preparation for loading out. It is important to note that the inspection by the AAV and AQIS officer is generally taking place 24 to 48 hours before animals would be expected to be yarded for loadout. Under these circumstances it is common practice to identify a group that may need drafting to remove rejects and then for staff at the registered premise to complete that process prior to animals being loaded. This ensures that rejections are managed appropriately while also minimising the amount of handling that animals are subjected to in order to minimise risks of adverse welfare outcomes.

If there are any concerns about health issues that may have the potential to result in serious disease or reduced ability of animals to complete the voyage in good health then more immediate action is likely to occur at the time of the inspections by the AAV and AQIS officer.

The AAV indicated for example that evidence of diarrhoea affecting multiple sheep in a pen or paddock would be of concern because of the knowledge that salmonellosis is a possible cause of enteritis in sheep and that salmonellosis has the potential to affect multiple sheep in a consignment and may cause elevated mortalities.

In this situation the AAV indicated that he would normally bring the matter immediately to the attention of the manager of the registered premise, the exporter and the AQIS officer. The AAV then indicated that he would expect that several or all of these individuals would then gather and discuss the issue and agree on actions such as further diagnostic investigation, removal of affected animals from the consignment (and treatment as appropriate) and careful monitoring of the remaining animals. Options for managing affected groups of animals include removing all affected animals, removing a larger proportion of the tail of the group to try and remove all animals that may be

susceptible to the condition, and removing an entire pen or line of animals from the consignment. On occasion these decisions may result in delay in assessing the AHCPLL until the matter is considered to have been resolved to the satisfaction of the AQIS officer.

The project team was able to directly observe an example of this process while present at a registered premise at a time when the AQIS officer was conducting an inspection as part of the AHCPLL process. The officer identified a small number of rams in a pen that were showing evidence of diarrhoea. The officer requested that these animals be removed from the pen. Inspection of the animals indicated that they had the same brand and therefore came from the same property. The officer then inspected the records for all sheep in the consignment and determined that there were other sheep (wethers) at the registered premise that had originated from the same property. These sheep were then located within the premise and were inspected to determine whether there was any evidence of similar signs in those animals. There was no detectable evidence of any problem in the wethers from the same property.

This is an example of an effective flock inspection process. A problem was detected. The problem (diarrhoea) is a criteria for rejection in the ASEL and is a condition that under some circumstances has been associated with elevated mortality. Affected animals were removed from the consignment and other animals from the same property of origin were inspected for any signs of the condition.

Up until this point, the inspection processes in Western Australia are considered to be very similar to those conducted in South Australia and Victoria.

Following completion of the flock inspections by the AAV and AQIS officer at registered premises in Western Australia and granting of permission to leave for loading, practices then differ from the eastern states.

Project team members were present at the same two different registered premises in Western Australia on three separate occasions when sheep were being loaded onto trucks to be transported to the port.

The key difference for Western Australia registered premises was that there was no individual animal inspection conducted by the AAV at the registered premise during the period between granting of permission to leave for loading and actual loading.

In South Australia and Victoria, the same AAV who conducted the flock level inspection as required for the AHCPLL, then either later on the same day or on the following day, began conducting the individual animal inspections of all animals as they were being yarded in preparation for loading on to trucks to travel to the port.

In Western Australia, the AAV completed the flock inspection as required for the AHCPLL and then departed the registered premise. The AAV then began preparations for a team of inspectors under the supervision of the AAV to be present at the Fremantle port where individual animal inspections were conducted.

The yarding and loading of sheep at the registered premises in Western Australia is conducted by stock handlers employed by the exporter or the registered premise. It is important to note that there

is still an opportunity for inspection and rejection during this process, just that it does not involve the AAV. The following section describes this process.

Sheep are brought into the yards by stock handlers in preparation for loadout. If there are any concerns over particular pens or paddocks of sheep, they may be run through a drafting race to allow rejects to be removed. Animals that are classified as rejects in accordance with ASEL criteria are then marked as appropriate and removed from the export chain and dealt with as identified earlier.

For those groups of sheep where there are no concerns about potential flock issues, sheep are yarded and moved towards smaller pens in preparation for loading.

Each registered premise will then have a number of people who have responsibilities for inspecting sheep and identifying any rejects (using ASEL criteria). Rejects are marked (raddle or spray) and manually removed and placed in small pens adjacent to the loading area. The individuals with this responsibility may include the manager of the registered premise and senior stock handlers who may be involved in drafting sheep into lines at receival (individuals with a great deal of experience in assessing sheep for export). These individuals are described in this review as yard-inspectors to differentiate them from inspectors who operate under the direct supervision of the AAV.

At one registered premise there were normally three yard-inspectors but on the day when the project team member was in attendance there were two individuals present and the third was off duty while recovering from injury. All stock handlers involved in moving sheep through the yards were aware of the importance of identifying and removing reject animals and there were instances where a stock handler brought a sheep to the attention of the yard-inspectors and the animal was subsequently marked and rejected. The rate of rejection was not able to be estimated because of the volume of sheep being moved through the yard.

It was also noted that at one registered premise most voyages involve the exporter preparing sheep for one major client (importer). Two experienced stock handlers who provide services as yard-inspectors and drafters at receival and at loadout, are acting as agents for the client and are independent of the exporter and the management of the registered premise. The same registered premise also does prepare sheep for other clients and while the same yard-inspectors are often involved the independent contracting process is not always in operation. Other registered premises in Western Australia all have a similar arrangement of yard-inspection at loadout but the yard-inspectors may not be independent of the exporter or registered premise operator.

As sheep move towards the loading ramps they are generally yarded into smaller pens and then loaded onto trucks. Sheep are counted onto trucks and details of the class of sheep and numbers are provided to the truck driver for incorporation in to documentation for the journey to the port. The drivers close all pen gates on the truck and ensure that loading density is in accordance with the ASEL requirements. On the way out of the registered premise the trucks are weighed on the weighbridge and the gross weight recorded. The empty weight of each truck (tare weight) was recorded as the trucks enter the registered premise to prepare for loading. This information allows total livestock weights to be recorded for each truck and average liveweights are then estimated using the total count of livestock on a truck

The process of loading at the registered premise in Western Australia therefore does not involve individual animal inspections performed by the AAV. However, it does involve inspection and rejection opportunities conducted by yard-inspectors (stock handlers with responsibility for inspecting and rejecting animals).

## 5.5 Inspection and rejection at the port

Inspections conducted at the port are different in different states and therefore they are described separately here.

### 5.5.1 South Australia

In South Australia, individual animal inspections are conducted by the AAV (and a second inspector under the supervision of the AAV) at the registered premise immediately before sheep are loaded onto trucks for transport to the port.

A project team member visited the Adelaide port while a ship was being loaded with sheep. The visit was conducted on the afternoon of the same day when the project team member had attended the registered premise to observe individual animal inspections and trucks being loaded.

A temporary semi-circular pen constructed of movable yard panels had been erected on the wharf. The panels were held in place by large, concrete weights that had been placed using a forklift, and panels were tied to these weights. A load of sand had been deposited into the semi-circular pen and spread evenly across the pen to provide secure footing for sheep. There were four portable, over and under design, unloading ramps arranged along a straight edged section of the pen (on the northern aspect). A depiction of the arrangement is provided below (drawing not to scale). Two small holding pens had been constructed (one on either side of the larger pen) by using two of the same yard panels to form a triangular shape against the larger, temporary pen. Reject sheep were held in these small holding pens.

Trucks carrying sheep drove onto the wharf and backed into the unloading ramps to unload sheep. There were a number of stevedores present in and around the pen (about ten consistently present and occasionally more). A representative from the exporter was present and responsible for livestock at the port in accordance with ASEL requirements.

An inspector was also present to ensure that only fit and healthy livestock were loaded on board the ship. The inspector was part of a team provided or arranged and supervised by the AAV in an arrangement with the exporter. While the project team member was present at the port to observe the loading of the ship, the AAV and one additional stock inspector were still at the registered premise completing the individual animal inspections on sheep that were being prepared for loading. Trucks were being loaded at the registered premise, driving to the port to unload and then returning to the registered premise to pick up another load. This process continued until all sheep had been transported to the port.

The inspector moved around within the temporary pen and viewed sheep as they unloaded and as they moved within the pen. Rejects were identified and manually moved to one or the other holding pen and a panel moved to allow them to be added to the holding pen.

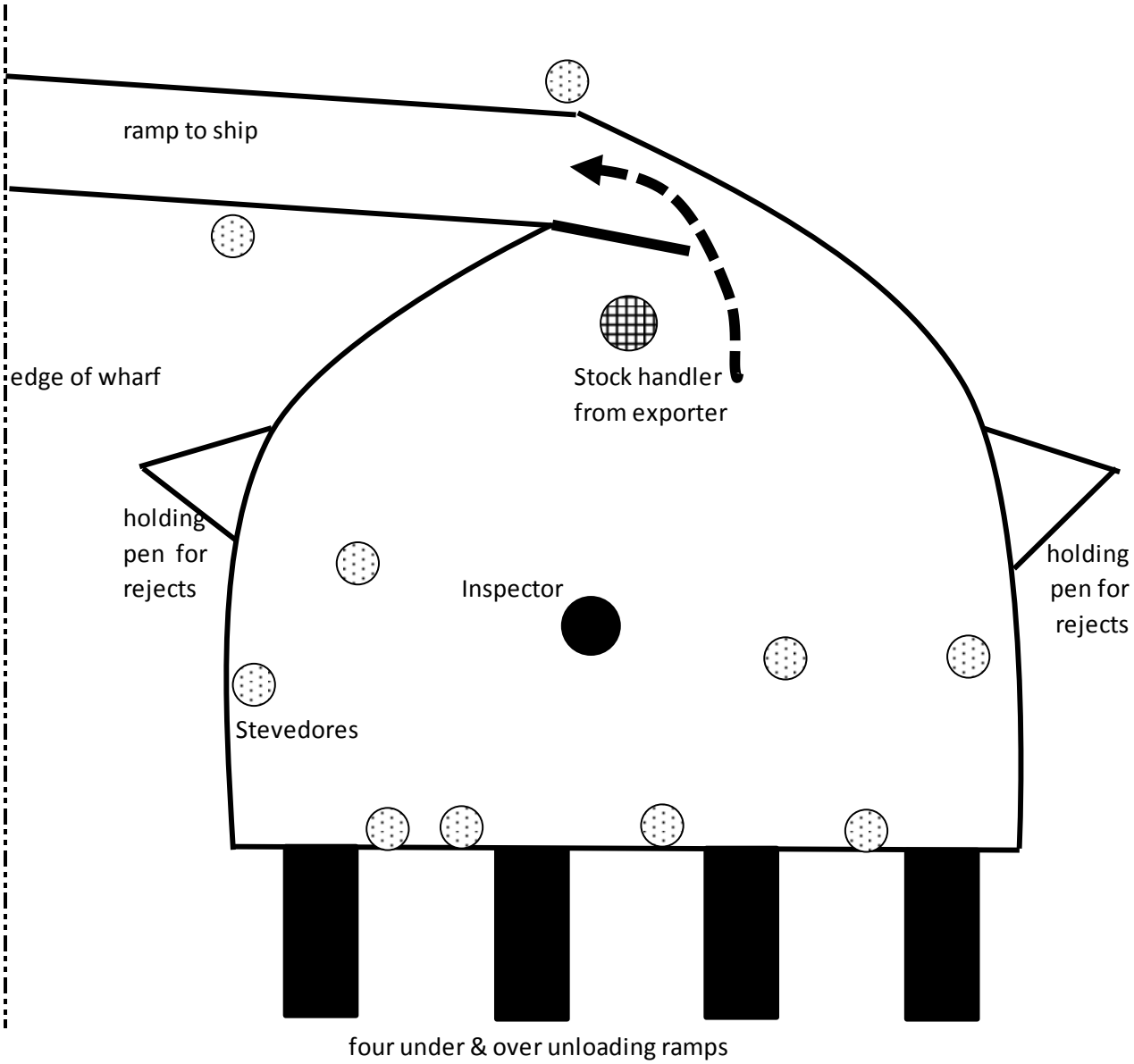


**Figure 2: Diagram (not to scale) of animal handling facilities at the Adelaide port**

Discussion with the inspector indicated that he was a sheep farmer with many years of experience in the sheep industry and many years of experience acting as an inspector on the wharf for live export shipments. The inspector indicated that it was routine practice in his experience for there to be one inspector present at the Adelaide wharf when sheep were being loaded onto an export ship. He indicated that it was routine practice to euthanase immediately any animal that warranted euthanasia and to load all dead animals back onto a truck immediately so they could be transported back to the registered premise for disposal. Other rejects generally were held at the port until the end of the day when they were loaded onto the last truck for transport back to the registered premise. He indicated that he expected that there might be a total of between 30-50 rejects presented for back loading at the end of a day, though this number would obviously vary depending on the total number being loaded onto the ship.

It was not possible to estimate the reject rate while present at the wharf because the project team were not present for the entire loading. The inspector did indicate that the wharf inspection was mainly focused on detecting and removing any animal that may have suffered some sort of injury during the journey from registered premise to the port since the animals had been individually inspected immediately prior to loading at the registered premise. This practice appears to be referred to by industry as a welfare inspection. However, the inspector also indicated that his responsibility did include removing any animal detected that met any ASEL rejection criteria.

Once a truck was in position at the unloading ramp, the driver moved into the pens on the trailer and encouraged sheep to exit the trailer and enter the ramp leading to the temporary pen on the wharf. A stevedore was stationed at the base of the unloading ramp with a counter and was responsible for counting sheep off the trailer and into the temporary pen.

When there was a single truck unloading, the sheep were observed to be exiting the unloading ramp and running across the temporary pen towards the far side (where the ramp to the ship began) and in the process they were running in single file in front of the stationary inspector. This process appeared to afford the best potential for the inspector to observe every sheep and sheep with problems arising from the journey (physical injuries for example) would be considered to be very reliably detected.

Sheep from multiple trucks were unloaded together when the sheep they carried were of the same class (A wethers for example). Whenever one line or class of sheep ended and a new class was being delivered, the sheep of the new class were held on the truck until the temporary pen was completely emptied and the staff on board the ship indicated that they were ready to receive the new class of sheep.

There were occasions where there were four trucks backed up at the same time to unloading ramps and often there were two or three trucks (and occasionally four) unloading simultaneously. This produced multiple streams of sheep entering the temporary pen and also meant that the sheep had a shorter distance to run to join other sheep already in the temporary pen.

When multiple trucks are unloading at the same time into the temporary pen it is possible that the pen may contain up to 2,500 sheep depending on the rate of unloading and the movement of sheep from the temporary pen onto the ship. During the time when the project team were at the Adelaide wharf trucks were generally always unloading into a temporary pen that already contained sheep and often contained a relatively large number of sheep.

The combination of simultaneous unloading of multiple trucks, and the presence of often hundreds or more than 1,000 other sheep in the temporary pen, meant that it was difficult for the inspector to reliably observe all parts of all sheep as they unloaded. During these times, the inspector was observed to turn and move more often including moving through the assembled mob of sheep in the temporary pen in order to inspect sheep.

Discussions with the inspector indicated that the inspector was aware that the best view of sheep was obtained when there was one truck unloading into a largely empty, temporary pen. This appeared to be less common than having multiple trucks unloading together.

As a result of all of these factors it is concluded that it is difficult to be confident that the Adelaide port inspection system can apply a consistent level of inspection rigour to every sheep. As a result it seems likely that the current Adelaide port inspection process will not detect all sheep that might be detected if there were an effective individual animal inspection process being applied at the port.

Stevedores regularly shovelled sand onto the base of the unloading ramps and the pen in that area to prevent any problems when sheep were leaving the unloading ramp and entering the temporary pen area. There was also intermittent shovelling of sand in any area of the temporary pen to ensure good coverage of the wharf surface across the entire pen area.

Sheep were encouraged to move towards the other end of the temporary pen and into the loading ramp leading up into the ship. The loading ramp was wide enough to handle 3-4 sheep side by side (depending on the size of the sheep).

An attempt was made to estimate the rate at which sheep were moving up the ramp and it was estimated that about 85 sheep per minute were moving up the ramp (equivalent to a little over 5000 sheep per hour). Caution is urged to avoid over interpreting rate estimates because these observations were based on a very small sample size (counting sheep over a period of less than 5 minutes). Loading rates at any point in time were observed to vary presumably as a result of any of wide range of factors including sheep factors (age, type etc), wharf factors and factors operating within the ship and out of view of those on the wharf.

While the project team member was at the wharf, the AQIS veterinary officer arrived and spent time both observing the movement of animals from truck to ship. The AQIS officer also went on board the ship presumably to inspect the general condition of animals in pens on the ship including inspection of feed and water, air flows and any other matters relevant to assessment of animals in preparation for export. The AQIS officer indicated that he may come and go on the wharf while the ship is being loaded but that he would then arrange to be present at the end of loading to perform a final check of relevant documents and conditions on board the ship and then formally complete the required paperwork (health certificates and export permits) required for the voyage to commence.

During the period when the project team member was present at the Adelaide port, the general impression was that sheep were being handled in a way that was consistent with routine husbandry practices for moving sheep. In order to get sheep to begin moving into the ramp leading up into the ship, it was often necessary to encourage mob movements in a circular fashion and in an anti-clockwise direction because of the location of the gate and opening from the temporary pen into the loading ramp. This in turn required multiple people acting in concert to encourage mob movement in a particular direction and prevent animals escaping or moving to the back of the temporary pen (away from the loading ramp). The process is associated with some milling of animals around the pen and opportunities for animals to run within the pen. Stock handlers and stevedores waved hands, made verbal noise and used aids such as rattles and plastic bags tied to the end of short pieces of poly-pipe to make additional noise and encourage animals to move. There were no shade structures erected at the time when the project team member was present.

### 5.5.2 Victoria

The project team did not have an opportunity to attend either a registered premise in Victoria or the port in Portland at a time when an export ship was being loaded with sheep. One of the project team members has previously attended both registered premises located near Portland and has observed sheep being loaded onto a ship at Portland. These activities were associated with a research project examining mortalities in export sheep which was completed in 2008.

Discussions were held with industry representatives including exporters and members of the AAV inspection team that were present at Adelaide. It is understood that the procedures normally implemented at the port in Portland are very similar to those described above for Adelaide port. These comments were consistent with the previous experiences and observations of the project team. However, it is acknowledged that this review has not provided a detailed description of procedures and practices routinely undertaken in Victoria.

### 5.5.3 Western Australia

A project team member was present for three separate occasions when sheep in Western Australia were being loaded out at a registered premise for transport to the Fremantle port and also at the port when sheep were being loaded on the ship. The three occasions involved sheep being prepared at two registered premises for delivery to three separate ships. On each occasion a single registered premise provided all the sheep being loaded onto one ship.

The two registered premises were operated separately by different entities but were using broadly similar practices.

All three ships berthed at the same location within Fremantle port.

The port set up was quite different to that observed at Adelaide. The major difference in process was that the individual animal inspection in Western Australia (involving the AAV or inspectors operating under the direct supervision of the AAV) took place at the port immediately prior to sheep being loaded onto the ship.

The Fremantle set up involved custom made double-axle trailers that had been developed with drafting races along the two long sides and a central holding pen. Extendable sections of race can then be mounted at either end of the trailer, to join the trailer to a portable unloading ramp (over and under ramps were used that allowed simultaneous unloading of lower and upper decks of a truck at the same time) at one end, and to the larger ramp leading up into the ship at the other end. The height of the race and trailer platform is the same height as the lower deck of the vehicle trailer carrying sheep to the port.

It is understood that the inspection system we observed on the Fremantle wharf has been in use at the wharf for many years. There is a description of the process in a report by a Senate Select Committee on Animal Welfare published in 1985[7] that describes the Fremantle system at that time in the following words:

[7] http://www.aph.gov.au/Parliamentary_Business/Committees/Senate_Committees?url=history/animalwelfare_ctte/export_live_sheep/index.htm

> *... a series of trailers with four or six unloading ramps where between two and five trucks could unload at a time. In this system the trailer floors were at the same height as the truck lower deck and unloading ramps were only required for unloading the top deck. It also enabled the inspectors to examine the sheep at eye level enabling them to observe the underside of the sheep for such conditions as pizzle rot.*
> *(Commonwealth of Australia 1985, page 69)*

Discussion with industry representatives indicates that over time the trailer system has been further modified and adapted to add functionality such as extendable races, over and under unloading ramps, central pens to hold reject animals and erecting shade over the trailers.

A recent ABC news story has provided a photograph of this set up in action at the Fremantle port[8]. This photograph appears to show the same trailers that we observed at Fremantle in August 2012, noting that the trailers in the photograph represent the system as used by one exporter. A similar but separate set of trailers was used by the other exporter observed at the wharf.

During the periods when a project team member was present at the Fremantle wharf, there were three different ships loaded by two different exporters. Each exporter had their own separate set of trailer platforms at the wharf and the platforms appeared to be based on the same design but some minor differences. One set of platforms had a fixed, steel roof providing shade and weather protection over the entire trailer. The other set of platforms had a cloth shade structure erected over about one half of the trailer, providing shade and weather protection for sheep that had been rejected.

Diagrammatic representations of the platform system are presented in the following pages. The platforms were each built on similarly sized double-axle trailers. In what is understood to be a routine set up for loading larger numbers of sheep onto a ship, there are two trailers employed on the wharf. Each trailer is capable to being linked to two unloading ramps for receiving trucks. Each unloading ramp is an over and under design that is mounted on wheels so it can be moved easily and when in place can simultaneously unload lower and upper decks of a livestock truck.

Livestock trucks in use in all states of Australia for transporting sheep from a registered premise to the wharf are a mixture of different designs. The most common truck type is a B-Double carrying four separate levels of sheep on each of two trailers. The smaller front trailer on a B-Double setup has approximately half the carrying capacity of the larger semi-trailer. Two of the levels of the front trailer are equivalent to one of the levels on the full-size rear trailer. Each level on the full size rear trailer is classified as one deck of sheep. This means that in total a B-Double is described as carrying 6 decks of sheep. There are also semi-trailers with a single conventional trailer with four levels of sheep being pulled behind a prime mover. This setup is classified as four decks of sheep. There are then occasional different truck types. For example, there was one truck observed at the Fremantle wharf that was a semi-trailer with only three levels of sheep (3 decks). When industry personnel are arranging trucks to transport sheep between premise and wharf, it is routine to talk in terms of the number of decks that are being organised and not the number of trucks since any one truck could be carrying 6 or 4 decks most commonly and occasionally some other number.

[8] http://www.abc.net.au/reslib/201208/r989943_10916969.jpg

When two platform inspection trailers are set up, up to four trucks can be backed in and unloading sheep simultaneously.

The truck drivers were observed to do all the work on their own trailers including opening pen gates on their own trailers and encouraging sheep to move off the truck onto the unloading ramp. As sheep exited the truck and moved through the unloading ramp they merged into a single file race set up that was extended from the platform trailer (linking the platform trailer to the unloading ramp). This is shown in lateral view in Figure 3. The extension then joins the trailer platform and sheep are then moving in single file down a race that runs along the side (the long edge) of the rectangular trailer. The race has relatively thin rails on the external edge so that a person standing beside the race has a clear view of sheep running in the race. The inner wall of the race is solid.

As shown in Figure 3, the trailer platform is elevated because it sits on double axles. Both members of the project team are about 176-180 cm tall and when standing beside the race running along the edge of the platform trailer, the floor of the race is about at lower chest height, meaning that a standing observer has their head height at a level between the level of the mid-body to head of sheep that are moving towards and past the inspector.

An inspector can then stand on the wharf beside the race and can view sheep from the side as they move along the race in single file away from the truck and towards the inspector. The inspector views the sheep through the rails. A second person is standing in the trailer operating a drafting gate. The drafting gate is positioned at the end of the race away from the truck unloading ramp. The drafter also has a clear view of the sheep as they move away from the truck and towards the drafter, including in particular a view of the inside of the head (the side of the eye and mouth that are away from the inspector). The inspector can then identify a reject as the sheep move, and the drafter opens the gate and drafts the reject out of the flowing line of sheep. Rejects are moved into the holding pen that forms the bulk of the central part of the body of the trailer. The drafter is standing in the holding pen so reject sheep are moved into the same floor area where the drafter is standing.

All other sheep that have passed the inspection (that have not been drafted out) continue to move forward along the race along the edge of the platform trailer and then enter a second extension race that carries sheep off the platform trailer and down to the wharf level. At the wharf level the race joins with the larger loading ramp that then carries sheep up onto the ship.

Figure 4 shows an overhead view of the setup with two trailers positioned side-by-side, involving four unloading ramps and four inspection races and four drafting gates all operating simultaneously.

The personnel involved included a team of inspectors and a team of drafters. The inspectors are organised by the AAV and employed as subcontractors by the AAV. They are experienced sheep handlers and discussions with several of these individuals indicated that they all had a background in general sheep production (sheep farmers or other experience) and all had been working as inspectors in the export trade for some time.

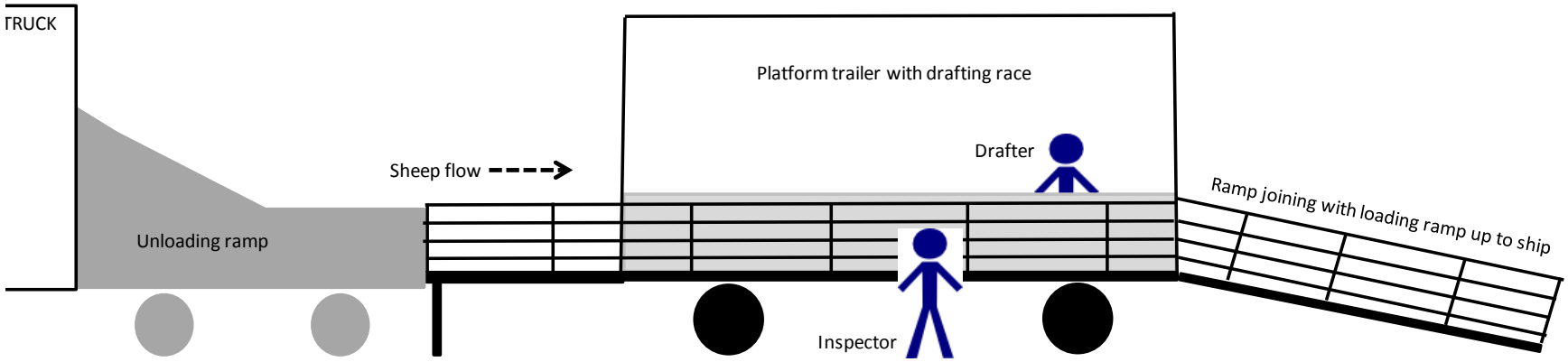


**Figure 3: Lateral depiction of trailer based platform used at Fremantle wharf for individual animal inspection**

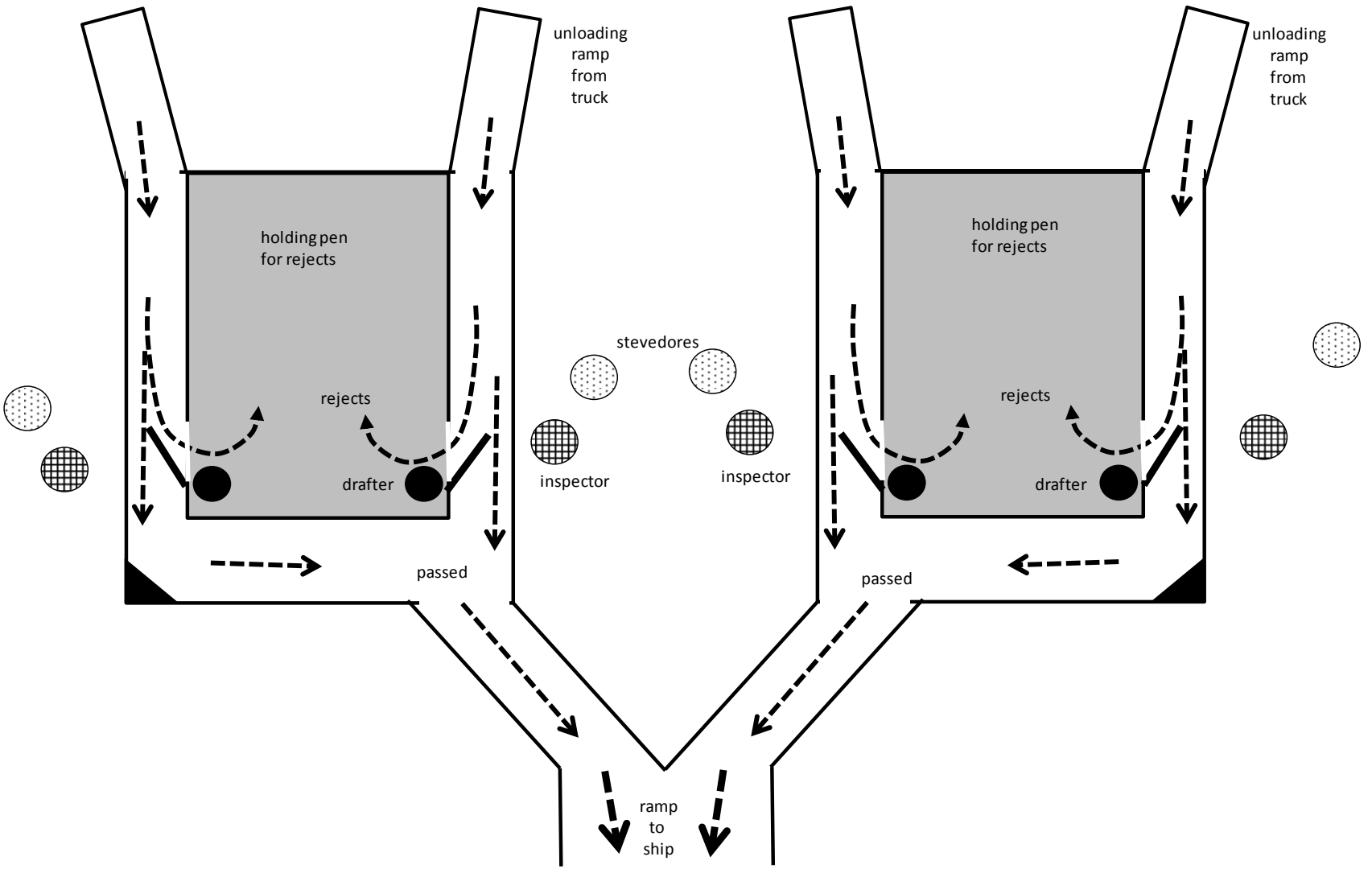


**Figure 4: Diagrammatic view (not to scale) of system employed at Fremantle port for individual animal inspection. The system involves two trailers standing side-by-side. Each trailer is capable of simultaneously processing sheep from two trucks.**

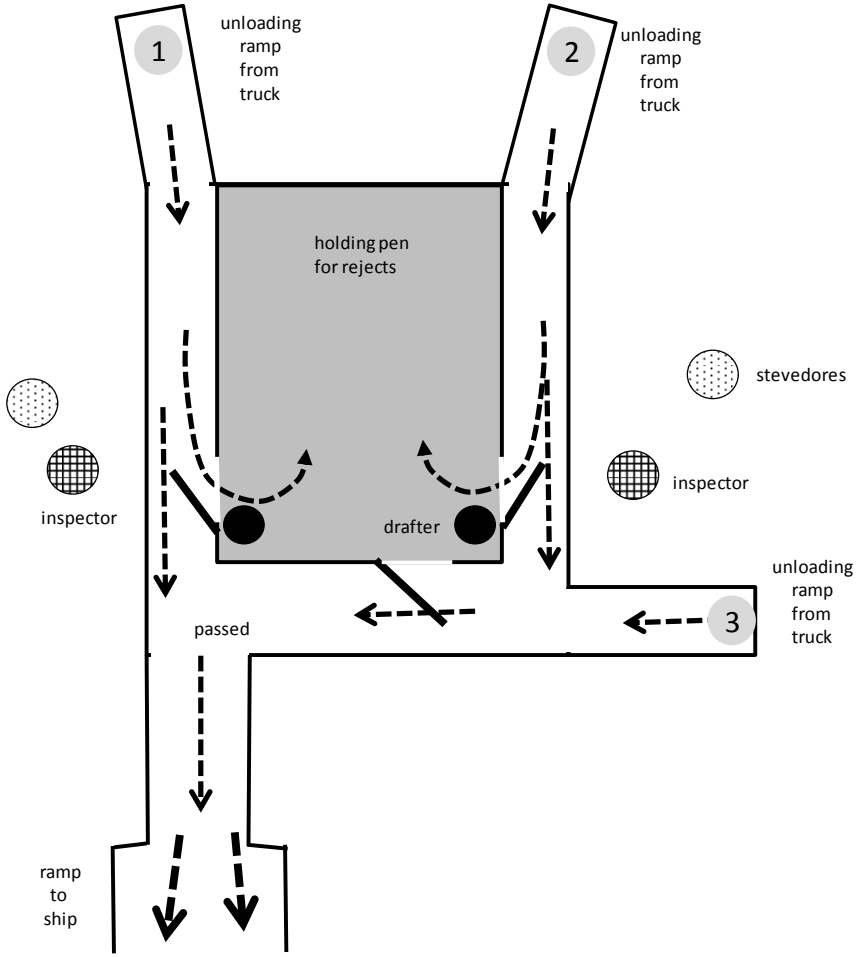


**Figure 5: Depiction of a single trailer platform configured to allow for three trucks to unload through a single trailer system. Observed in action at Fremantle port.**

There was always one inspector present for each functioning race, and the AAV was also present in addition. The AAV acted as a general supervisor and on occasion relieved an inspector to allow individual inspectors to have a break. All inspectors have regular breaks for morning and afternoon tea and lunch at the same time as stevedores have their breaks. This meant that when there were two trailers and four drafting races in operation, there were always five inspectors present (one inspector operating at each race and the AAV moving around).

The drafters were understood to have been arranged by the exporter and were not the responsibility of the AAV. The drafters do have considerable experience with sheep handling and many of these same individuals are understood to work at the registered premises as drafters when sheep were being received and sorted into classes.

Figure 5 shows an alternative setup involving a single trailer with three unloading ramps linked to it. This setup was observed in action at the Fremantle wharf on a day when only a smaller number of sheep were being loaded onto the ship (about 18,000). The ship had already loaded sheep in Adelaide and was calling in to the Fremantle port to top up with sheep from Western Australia.

In this setup, only two trucks were expected to be unloading simultaneously. The ramp labelled with a number 1 would always be expected to be in operation. Then only one of ramps 2 or 3 would be expected to be in use at any one time. One drafter and inspector had the option of working on either of two unloading ramps (2 or 3). A swinging gate was used to close the race not being used and open the race leading to the other ramp. This approach allowed one truck to be preparing for unloading at either ramp 2 or 3 while another truck was unloading at the other ramp. The approach reduced down time in general.

When two trailers and four drafting races were in operation the following observations were made.

There were noticeable differences in flow rates depending on the number of trucks that were simultaneously unloading and also on the configuration of the loading ramp running up into the ship. The loading ramp up into the ship could be managed to load two different classes of sheep at the same time. The loading ramp to the ship was divided in the middle into two separate stock lines and each trailer platform delivered sheep into one stock line going up the loading ramp onto the ship. In general when all races and ramps were operating at full capacity the main merging of stock occurred as sheep exited one trailer platform when sheep from two different trucks that were unloading on to the same trailer had sheep that were merging to exit the trailer and enter the loading ramp going to the ship.

There were also differences in flow rates observed depending on which unloading ramp a truck was using on a particular trailer. One ramp had a straight flow of sheep from the truck along the inspection race and out the other end. The other side had sheep moving in a straight line to the drafting gate and then they made a sharp turn to run along the short edge of the trailer and then join the other race to turn again and exit the trailer platform. The inspection race that had no corners tended to move sheep more quickly and with fewer interruptions than the inspection race that had two corners.

A total of about 68,000 sheep were observed to be loaded onto one ship over a total period of 17.5 hours running over two consecutive days. This equates to about 37 minutes per truck assuming that

most trucks were carrying 6 decks of sheep. The average times in this overall estimation include time for changeover of trucks and also time for breaks through the day.

When a project team member was standing at the wharf and directly observing individual trucks unload, a 6-deck truck (B-Double) was generally taking between 20-30 minutes to unload and run all sheep through the race inspection system.

When a single truck was unloaded (no other trucks on any ramp) meaning that there was no restriction of flow rates as a result of sheep from multiple trucks merging, and using the straight sided inspection race, 6 decks of sheep could be run past the inspection race and moved onto the loading ramp up into the ship in about 15 minutes.

Sheep were consistently observed to be moving in single file along the races and there was generally a very good view of sheep as they moved along the race towards the inspector.

A count was made of sheep passing the inspector over a defined time period and the result was that individual sheep were passing the inspector at a rate of about 1 sheep per 2 seconds. When expanded over four races that were operating simultaneously (say three races operating together for much of the time to allow for one truck to be changing over on the other ramp) this produces an overall loading rate at any point in time of 90 to 120 sheep per minute.

These estimates are crude because they are based on a small sample but the impression is that the overall performance at Fremantle in terms of time to load a ship, appears to be no slower than the process observed at Adelaide.

When the inspector is standing and looking towards the truck, it is possible to begin looking at sheep as soon as they exit the unloading ramp and step onto the inspection race and individual sheep can be subjected to a detailed view before they reach the drafting gate.

Sheep tended to move at a steady and consistent pace and did not run so fast to preclude good visualisation.

The most common times when flow was interrupted was when unloading was just starting and the first sheep were being encouraged to move along the race, or when a leading sheep stopped or turned. In these situations it was relatively easy for the leading animal to be encouraged to move along and then animals tended to follow the flow very effectively.

A stevedore was positioned at each unloading ramp with a counter to count sheep as they were unloaded. A representative from the ship’s personnel was also observed to be present and using a counter to estimate a count of sheep at unloading as well. The stevedores tended to help more with the flow of sheep and correcting intermittent stoppages.

There were about 6-7 stevedores that appeared to be most directly involved with the unloading process. This included one stevedore on each unloading and inspection race to count sheep off the truck. There were one or two stevedores also assisting in directing trucks and managing the operation and one or two stevedores assisting in maintaining animal flows through the various races and up the ramp leading to the ship.

The inspectors tended to stand beside the race or occasionally sit on a stool. The height of the race allowed excellent visualisation of the sheep and particularly the head, abdomen including the ventral abdomen and the legs. A direct view of the ano-genital area from behind the sheep was more difficult but the inspector can clearly view the lower parts of the back legs and also can see the rear end of sheep as they move past the inspector and towards the drafter. Identification of ewes in a wether line was made more on the lack of a discernible pizzle on the ventral abdominal contour than on any attempt to visualise the vulva.

The areas of sheep that were more difficult for the inspector to see consistently were the side of the face and body away from the inspector (on the inside of the race). Many sheep tended to turn their heads as they exited the unloading ramp and entered the inspection race and it was often possible to get a good view of both sides of the face of sheep. In addition, the drafters were expected to be looking at the inside of the face of approaching sheep and to bring any concerns to the attention of the inspector (pink eye lesions on the inside eye only or scabby mouth lesions on one side of the mouth).

The movement of sheep tended to involve relatively little fuss. There was no requirement to get multiple sheep running in a mob movement to try and move sheep towards and through a gate (as was experienced in Adelaide when sheep were being encouraged to move from the temporary pen to the loading ramp up to the ship). Sheep tended to be moving quietly and steadily through the races. Rejects were drafted out with little or no interruption to animal flows and rejects were held under shade and out of view behind solid panels in the centre of each trailer. Because sheep did not exit the unloading ramp into a large space (such as the temporary pen setup), they did not have an opportunity to run or leap and the overall impression was one of quiet and orderly movement in a linear direction (along a race) rather than running or jumping or non-linear movement such as is often displayed by sheep when running in a relatively large pen.

Any animal that required immediate veterinary attention was brought to the attention of the AAV and was examined and treated or euthanased immediately.

Rejects were back loaded onto a truck for return to the registered premise at any point during the day. Before rejects are back loaded they are all inspected by the AAV and treatments are administered to animals in the trailer as appropriate before they are loaded onto a truck. As rejects are loaded onto a truck they are branded with an indelible paint brand to clearly mark them as rejects. Project team members observed this occur several times during the course of a day and on no occasion did rejects remain at the wharf all day. The last reject load was back loaded on to the last truck that was unloaded that day at the wharf.

A representative from the Livestock Compliance Unit of the Department of Agriculture and Food, Western Australia was observed to visit the port on each occasion when the a member of the project team was present observing procedures. Discussions with these individuals indicated that they were present to provide oversight of compliance with state legislation and codes of practice concerning animal welfare and requirements for land transport of animals. DAFWA officers indicated that they routinely expected to be present at some point during the process and were contactable at any time to respond to any concerns or complaints. Officers indicated that they interacted on a regular basis with exporters and with transport drivers to ensure that there was effective communication over these issues.

Discussions with various personnel involved in preparation of the sheep at the registered premise and with the AAVs involved in individual animal inspection at the port indicated that typical rejection rates at the port were expected to be up to about 5 per 1,000 and occasionally as high as 6 per 1,000 sheep. The yard-inspector at one registered premise who was involved in inspection and rejection procedures before sheep were loaded onto trucks to travel to the port indicated that if port-side rejection rates were greater than 6 per 1,000 then he would be looking to review inspection procedures at the registered premise immediately before sheep were loaded onto trucks for transport to the port.

Data from the wharf inspection process at Fremantle for one ship indicated that 68,000 sheep were loaded onto the ship over about 18 hours (spanning two days). The overall rejection rate over that two day period was 6 rejects per 1,000 sheep. Rejects were classified as eye conditions (47%), scabby mouth (7%), lame (27%) and other conditions (19%).

# 6 Discussion

## 6.1 Alignment with requirements defined in the ASEL

The activities undertaken by the project team have allowed a detailed description of inspection and rejection procedures employed for sheep being prepared for export in Western Australia and South Australia, with a focus on those inspection procedures that occur either at the registered premise or at the port.

During the course of the project information has also been gathered on the inspection procedures that are routinely undertaken at Victorian registered premises and at the port of Portland.

The following discussion is focused mainly on observations made at South Australia and Westner Australia. Information collected during this review indicates that activities in Victoria are essentially the same as those described for South Australia (with some minor variations) but this has not been directly confirmed by the project team.

When considered against the requirements as stipulated in the ASEL and the *Export Control (Animals) Order 2004*, the procedures observed and described in this report are considered to be consistent with all requirements.

There is a clear requirement that livestock must be inspected on-farm and various criteria are listed in Standards 1.7 through 1.27 of the ASEL that must be applied to select animals as suitable for export at that time, and reject those that are not suitable.

The project team did not directly observe any inspection or rejection procedures that may take place on a vendor property but we did collect information on these processes through discussion with exporters. Exporters and management at registered premises indicated that there are a variety of procedures in place to ensure that agents, buyers and vendors are aware of market specifications and requirements in the ASEL when sheep are being sourced for export.

Livestock producers are considered to be aware of obligations under state and territory legislation concerning animal welfare, animal identification (NLIS) and transport standards. These measures relate to all aspects of livestock management and production and not only to those producers who may be involved in live export. Project team members did not visit vendor properties or speak to vendors during this project. However, we were present at registered premises on occasions when trucks arrived having transported sheep from vendor properties to the premise. There was no evidence at any time when this project was being undertaken that there were any animals being transported that did not meet all requirements under state and territory legislation.

There are then additional requirements outlined in the ASEL that relate to meeting importing country requirements and market specifications, and the need to inspect animals and reject any that may be considered to be showing signs consistent with various criteria. There are a variety of pathways through which these measures are being managed. Exporters have developed relationships with experienced buyers over time and this has resulted in widespread appreciation of the ASEL requirements and of the market requirements for particular countries. Vendors must sign a NVD/waybill and may be required to sign other declarations concerning preparation of livestock. In

some cases there may be a requirement for additional certification related to importing country requirements such as scabby mouth vaccination or pregnancy testing results.

There are effective feedback loops from exporters through buyers to vendors, and exporters have indicated that this mechanism (commercial pressure through reduced purchase payments for rejects based on inspection at receival at the registered premise) provides a strong incentive for vendors to provide only sheep that meet market specifications.

Standard 3 of the ASEL and specifically S3.13, requires that livestock be individually inspected at unloading at the registered premise to determine whether they are suitable for preparation for export. More detailed criteria for rejection of livestock that are unsuitable for preparation for export are presented in other parts of Standard 3.

The description in this review of inspection and rejection activities taking place at receival at the registered premise is considered to be compliant with the requirements of the ASEL. Inspection processes include activities taking place literally as animals come down the unloading ramp off the truck as well as subsequent drafting of animals that takes place shortly after unloading. There are multiple opportunities for rejects to be noticed as sheep are moved from the unloading ramp through pens towards the drafting race and then animals are individually assessed as they run in single file through the drafting race.

These activities provide an opportunity for the exporter and management of the registered premise to check the two major potential groups of factors that may contribute to rejection up to this point in the export chain. The first is the assessment of suitability for export described by Farmer (2011) and that is associated with on-farm assessment of animals to ensure that only animals that meet all requirements for export are loaded onto the truck to be transported to the registered premise. The second is inspection of livestock for any evidence of conditions that are likely to have occurred during the journey and that may render the animal unfit for export.

During the period when sheep are being prepared at the registered premises, there are daily inspections of all livestock that occur as part routine operating procedures. These inspections provide additional opportunities for identification of animals that meet rejection criteria as defined in the ASEL. The main focus during these inspections is on detection of changes in the health status of animals to detect those animals that may have been compliant with all requirements during inspection on-farm and at receival but that subsequently develop signs consistent with ASEL rejection criteria. The major concerns as expressed by exporters, staff at the registered premises, AAVs and AQIS officers, are those conditions that may affect multiple animals and particularly conditions that can result in severe health impacts during later stages of the export process. Examples of conditions that can have major effects on livestock health are inanition affecting large numbers of animals and enteritis associated with salmonella infection. Other conditions such as pink eye or scabby mouth may affect a number of animals and result in increased rejection rates but generally do not have a long term adverse effect on animal health since animals typically recover from these conditions given time.

The ASEL indicates that only livestock fit to travel and that meet importing country requirements can be loaded for transport to the port (Standard 3, Division 1, Section 3.4).

Similarly, I Standard 4, Division 1, Section 4.4 of the ASEL states that "Only fit animals that comply with these Standards and importing country requirements can be transported to the port of loading for export".

The *Export Control (Animal) Order 2004* states that an authorised officer (AQIS officer) must inspect livestock before they leave the registered premise and the Application for Health Certificate and Permission to Leave for Loading requires a declaration by the AAV that is in turn based on an inspection of livestock in the registered premise by the AAV.

It is important to note that the *Export Control (Animal) Order 2004* requires that the authorised officer be satisfied that *"each of the livestock is fit to undertake the proposed export voyage without any significant impairment of its health"* (Section 2.54, (3) (g)), and further as a modifying clause explicitly linked to Section 2.54, (3) (g), that *"an authorised officer may be satisfied livestock are fit to undertake a proposed export voyage without needing to be assured of the fitness of every animal in a herd"* (Section 2.54, (3B)).

The wording of these sections of the Order provide a clear indication that the conduct of the inspection as is performed by the AAV and the AQIS officer, is sufficient to meet the requirement that each of the livestock is fit to undertake the proposed export voyage.

Both the AAV and the AQIS officer inspect all livestock at the registered premise as part of the requirement for assessment for leave for loading. The AAV and the exporter sign declarations as part of the AHCPLL.

The combination of the inspection processes conducted at the registered premise by both the AAV and the AQIS officer prior to granting of permission to leave for loading provide evidence of compliance with requirements stipulated in the ASEL and the *Export Control (Animals) Order 2004.* It is also relevant to note that these inspections are in addition to a growing list of inspections that began at the vendor property, were continued on arrival at the registered premise and then continued on through the daily inspections that are conducted by staff at the registered premise during the period while animals are on feed at the premise.

There are differences that exist between South Australia (and Victoria) and Western Australia with respect to inspection and rejection opportunities that occur subsequent to granting of permission to leave for loading at the registered premise and prior to loading of sheep onto trucks.

In South Australia, the AAV leads a team of inspectors that complete an individual animal inspection at the registered premise soon after the granting of permission to leave for loading and immediately before sheep are loaded onto trucks at the registered premise. This inspection is conducted in South Australia by two inspectors viewing sheep in a small forcing pen (one either side of the pen) as the sheep move towards a drafting race. Marked rejects are drafted out and passed sheep move to the loading pens. Loading of sheep then takes place without any further inspection process. Following arrival at the port, sheep are unloaded from trucks into a temporary semi-circular pen with sand footing that is erected on the wharf. A single welfare inspector (an experienced sheep farmer acting as a sub-contractor to the AAV who is completing the individual inspections at the premise) observes sheep as they unload from trucks and move in the temporary pen towards the loading ramp to the ship. This is the final opportunity for inspection and is aimed mainly at detecting animals that may have developed signs of any condition during the period since the individual animal

inspection that warrant rejection. The main focus of this final inspection relates to removal of animals that may have been injured during the journey from premise to port since animals had been through an individual animal inspection just prior to loading at the premise.

In Western Australia the procedures observed during this review involved a similar combination of inspection at the premise that was conducted after granting of permission to leave for loading and immediately before loading onto trucks, and a final inspection at the port.

The inspection at the registered premise was not performed by the AAV or by inspectors under the supervision of the AAV. It was done by staff at the registered premise and at one premise by individuals acting on behalf of the importer and independently of the registered premise. These yard-inspectors carry raddle (or spray paint) and have responsibilities for inspection and rejection of sheep that meet rejection criteria. Inspection occurs as sheep are being moved into small pens close to the loading ramps. Our observations indicated that this inspection provides a very high level of confidence that sheep that are loaded onto trucks meet all state or territory requirements for being fit to travel (Australian Animal Welfare Standards for the Land Transport of Livestock). In addition, it provides a final opportunity before transport from the registered premise to detect and reject animals that meet any criteria defined in ASEL for rejection.

When sheep arrive at the Fremantle port, they are then processed through an elevated platform race that ensures individual animal inspection. This inspection involves a team of inspectors operating in close cooperation with drafters who are providing additional inspection activities under the direction of the inspectors. The AAV is present at all times and provides a roving oversight and relief inspector as needed.

While there are apparent differences in the way that the final inspections are conducted between premises and ports in South Australia and Western Australia, both sets of activities are considered to be compliant with requirements outlined in the ASEL and the *Export Control (Animals) Order 2004*.

We acknowledge that a literal interpretation of sections of the ASEL may be viewed as requiring that an individual-level inspection be applied to every animal prior to leaving the registered premise and that only those animals that pass every criteria in the ASEL can be loaded onto trucks to be transported to the port. It is our view that this interpretation is overly prescriptive and that the wording of the ASEL sections is entirely consistent with the intention as expressed in the *Export Control (Animals) Order 2004*, that an assessment to determine that all animals comply with the requirements does not explicitly require that an individual-level inspection be applied to every animal. It is important in our view to also consider the fact that by the time animals are approaching the end of their preparation in the registered premise they have progressed through multiple inspection and rejection opportunities already and that there are two additional final inspection and rejection opportunities after the granting of permission to leave for loading – one at the registered premise immediately before loading onto trucks and one at the port immediately before loading onto the ship.

It is also our view (discussed in more detail in the following sections) that the Fremantle port inspection system provides the best individual-level inspection process of sheep, and that the port is the most appropriate place for this final individual-level inspection to occur. We also conclude that there is insufficient benefit to warrant an additional individual-level inspection at the registered

premise before animals are loaded. This is based in part on the fact that there is an inspection process that is undertaken by yard-inspectors at the premise immediately before loading of trucks that does reject all animals that do not meet state and territory requirements with respect to being fit to transport and that does also remove rejects associated with any ASEL criteria.

Finally, it is suggested that consideration be given to the wording of relevant sections of the ASEL (in Standards 3 and 4) to eliminate potential for confusion in interpretation of the wording with respect to inspections. This is revisited later in the discussion.

## 6.2 Comparison of differences between South Australia and Western Australia

### 6.2.1 Individual animal inspection procedures

It is very difficult to directly compare some measure of performance of the two different individual animal inspection procedures because they are performed by different groups of people, at different locations and there may also be differences between the sheep populations under inspection between the two states. There was a suggestion from some individuals that sheep populations in Western Australia and certainly the sheep being prepared for live export may have higher incidence rates of pink eye and scabby mouth compared to the populations of sheep in the eastern states. If this is the case then it may contribute to the observation that rejection rates in Western Australia may be higher than rejection rates in South Australia or Victoria and also provides an indication of the care required in avoiding an assumption that one inspection system may be better than another simply because it is associated with a higher rejection rate.

However, some comments can be made based on observations of the two processes.

The raised platform, drafting race system observed at Fremantle port is considered to offer a highly consistent view of every individual sheep and to provide a more reliable inspection and rejection opportunity than the approach observed in South Australia where sheep are individually inspected in a forcing pen leading to a drafting race at the registered premise.

The key characteristics of the raised platform inspection system in Western Australia that contribute to this conclusion are:

- the fact that sheep are elevated to about head height which ensures the inspector can clearly view the head, abdomen and limbs of sheep as they pass by;
- the design and dimensions of the race (length and width of the race and open side) that ensure a single file of sheep and a steady rate such that each sheep is within the view of the inspector for sufficient time to ensure effective assessment.
- there is no dust to interfere with visualisation.

There are potential weaknesses associated with the Western Australia approach. The inspector is consistently looking at one side of the sheep only and may miss a lesion or condition that was focal and located on the side of the sheep away from the inspector. The drafter is expected to be watching the face of the approaching sheep in the race to look for lesions of the inside eye or inner part of the lips and to bring those to the attention of the inspector. The likelihood of a lesion or condition that meets ASEL criteria for rejection and that is focal and on the side of the sheep away from the inspector, is considered to be very small.

The approach in South Australia does not in our view provide the same confidence in ensuring a highly consistent view of all relevant parts of every individual sheep. The inspectors are standing and looking down at sheep that are moving past at ground level. Sheep are not moving in single file towards and past the inspectors. They are moving in a group that is narrowing down towards a single file at the point of entry to the drafting race. In the race sheep are typically moving at single file but the inspectors are not generally viewing animals in the race.

The characteristics of the approach used in South Australia mean that the inspectors do obtain a consistent and complete view of the heads of all sheep. It is more difficult to be confident that the inspectors obtain a consistent and clear view of other parts of every sheep and particularly the ventral part of the body and limbs. The AAV indicated that he generally felt more confident about the ability to consistently view every sheep when working in the Victorian premises where two inspectors walk through a rectangular pen of sheep and encourage sheep to move slowly between them to allow inspection. Many of the same concerns that were described for the South Australian system are likely to also apply to the Victorian system. The Victoria system was not observed during this project.

### 6.2.2 Management of animals at the port

Under current practices sheep at the Adelaide port are unloaded into a large semi-circular, temporary pen with sand footing that is erected on the wharf. Sheep then have to be encouraged to move into the ramp leading up into the ship. Our observations indicated that this generally involves multiple people moving and making noise to get sheep to move in a mob towards the entrance to the ramp.

There was a distinct difference in appearance between the Adelaide wharf and the Fremantle wharf. At Fremantle sheep moved off trucks directly into a single file race coming off the unloading ramp. They moved across the raised trailer system then down again to the wharf and then immediately entered the ship's loading ramp. There was no opportunity for large mobs of sheep to gather in an open pen and no opportunity for sheep to run as a mob. They were always constrained within relatively narrow races that encouraged linear movement at a relatively steady rate. The angle of decline appeared to be less steep compared to that observed in Adelaide as sheep exited the truck down to ground level. Sheep were not running or jumping in the Fremantle system and there was no need for any circling or mob movement of sheep to get them to enter the ship loading ramp. Sheep at Fremantle tended to move in an orderly fashion in single file and following one another very effectively.

At Adelaide, reject animals were restrained in small temporary pens constructed on either side of the semi-circular pen. Advice from the welfare inspector at the port indicated that they remained there until the end of the day when they were back loaded into the last truck to be transported back to the registered premise. The AAV is not at the Adelaide wharf until such time as he completes all of the individual animal inspections at the registered premise, meaning that there may be a delay before a veterinarian could be at the wharf if required. It is noted that there was no such need when the project team were in attendance and there may be other veterinarians nearby (on-board AAV and the AQIS veterinary officer) but these individuals do not necessarily have to be at the wharf during the entire time of loading the ship. There was no shade over the temporary pens holding rejects at Adelaide.

At Fremantle the reject animals were held in holding pens in the centre of the elevated trailer platforms. They were housed behind solid panels and were out of view of activities going on at the wharf. They were also under shade since all trailers that were observed had shade roofs erected. The AAV was present at the wharf for the entire process and was observed during the day to attend to animals that were injured at the time of unloading. All reject animals were examined by the AAV at the wharf and were treated if required before they were loaded back onto trucks to return to the registered premise. In addition, rejects were loaded onto trucks for return to the registered premise at intervals through the day meaning that no animals were held at the port for the entire day.

The overall impression was that the Fremantle system afforded the best approach for individual animal inspection and it afforded the most orderly and secure system for moving animals directly from trucks to the ship with less need for shouting or waving and no need to try and get mass movements of sheep occurring. The whole process at Fremantle provided less opportunity for bystanders to view large numbers of sheep moving than the process at Adelaide where large numbers of sheep were easily visible in the semi-circular pen on the wharf. Finally, the Fremantle system provided for a more secure and welfare conscious approach for holding reject animals away from other sheep and under shade. The Fremantle system ensured both immediate veterinary attention if required for any injured or compromised animal and veterinary examination for all rejects before they were returned to the registered premise.

A relatively simple estimate was made of overall loading rates (movement of sheep from the port onto the ship) at Adelaide and at Fremantle. The authors concluded that the overall rates were similar. However, this may have been influenced by factors associated with the sheep and the ship. It is understood from discussion with exporters that the Adelaide port-side system has the potential to allow more rapid loading of sheep onto a ship than the Fremantle system. This may be dependent on having a large loading ramp running from the wharf to the ship and having internal sheep flows designed and manned within the ship to ensure optimal animal flows. It is recognised that where individual animal inspection at the wharf may not be a priority, that the Adelaide port system might be preferred because it may allow more rapid movement of sheep from the wharf to the ship, providing that requirements for inspection were met and that there were no adverse impacts on animal welfare outcomes.

### 6.2.3 Public scrutiny

There is a perception amongst export industry stakeholders that the Fremantle port is under a higher level of public scrutiny than other ports where livestock may be loaded onto ships for export. The Fremantle port has many more animals and livestock export ships being loaded through the port than Adelaide or Portland so that at any point in time there is a higher likelihood of visibility in Fremantle than in other ports. The Fremantle port is in a highly visible location (centre of Fremantle) and has a high level of engagement with members of the public who have an active interest in animal welfare.

All industry stakeholders encountered on the Fremantle port during this review (including representatives from DAFWA, AQIS, AAVs, truck drivers, stevedores, exporters, drafters and other stock handlers) were aware of the high level of scrutiny. During the time when project team members were on the port observing ships being loaded there were individuals observing events from publicly accessible areas adjacent to the wharf.

All stakeholders indicated that there is widespread commitment to optimal animal welfare for livestock throughout the supply chain and that every attempt is made to comply with relevant standards and legislation regarding animal welfare. There was acknowledgement that routine export operations must use methods that both meet standards and withstand scrutiny.

Concerns were expressed to the review team that on occasion the public engagement in and around the Fremantle port produced ongoing criticism and complaint regarding possible animal welfare concerns that were subsequently found to be not warranted when events were investigated and that appeared to be based on an intention to portray the industry in a less favourable light.

## 6.3 Comparison with findings of the *Farmer Review*

Farmer (2011) has described a need for review of the current inspection regime at Fremantle in light of criticisms concerning activities at Fremantle. These findings contributed to the implementation of the current project.

It is particularly important to note that at the time when the *Farmer Review* was being conducted, one of the three major licensed exporters loading sheep onto export vessels at Fremantle was trialling a different inspection process at the wharf. It is further understood that on the day when a team of people visited the Fremantle wharf as part of the *Farmer Review* to observe a ship being loaded with sheep, the inspection procedures that were being used on the wharf were different to those described in this report.

The project team members involved in this review were not present at the time when the *Farmer Review* was conducted. The report by Farmer (2011) does not provide a clear description of the inspection procedures that were observed on the Fremantle wharf.

We have not seen any detailed description of observations that may have been made at that time or indeed whether the findings expressed in the *Farmer Review* that relate to Fremantle port procedures were based solely on observations made during a visit to the Fremantle port. Farmer (2011) does describe the special arrangements that apply at Fremantle where the final individual inspection by the pre-export AAV is conducted at the wharf. This brief description is consistent with our observations of the AAV conducting the final pre-export inspection at the wharf.

Several individuals including representatives from exporters, stevedores, AAVs, and an AQIS officer have provided information to the project team members during this review indicating that when a team of people visited the Fremantle port as part of the *Farmer Review*, the inspection procedures being used on the wharf to process sheep on that day, were more similar to those described in this report at Adelaide.

A representative from the licenced exporter responsible for loading the ship on that day confirmed that they had been trialling a system in Fremantle that was based on the system used in Adelaide. They had performed an individual animal inspection at the registered premise which involved the AAV and other inspectors. Sheep were then transported to the Fremantle port and unloaded into a temporary semi-circular pen erected on the wharf and with sand covering the wharf surface. A welfare inspection process was implemented at the wharf and sheep were then encouraged to move onto the ramp leading up to the ship.

The exporter indicated that the trial had taken place over approximately two years and that since the time of the *Farmer Review* they have reverted back to the system as described in this report. It is understood that the motivation for the trial was in part at least to explore options that might allow the same level of overall animal inspection but culminating in an Adelaide-style process at the wharf because it allowed more efficient loading of sheep onto the ship. The exporter indicated that when the trial was in place the inspection procedures in the registered premise involved the AAV and other inspectors working in side-by-side races but without any elevation of sheep during the inspection process. The trial had ended when this project was undertaken.

At the time this review was conducted, the three exporters understood to be responsible for almost all sheep exports loading out of Fremantle are understood to be using the same general approach to port-side inspections at Fremantle, based around individual animal inspections performed under the direction of an AAV and using the raised trailer-based platform that we describe in this review.

It is apparent from this information that individuals who visited the Fremantle wharf in association with the *Farmer Review* actually observed inspection procedures on the wharf that were similar to those described in this review for Adelaide. It also known that the *Farmer Review* considered many sources of information and received a wide range of submissions and therefore it seems likely that the findings of the *Farmer Review* were based on multiple sources of information and not just on direct observations.

Farmer (2011) concludes that there is evidence of out of specifications sheep being delivered to Fremantle wharf, that this is the result of special inspection arrangements applying at Fremantle, that this departs from ASEL requirements and adds pressure to the loading process.

Our observations of the individual animal inspection process being applied at the Fremantle port were that this method offered a superior inspection and rejection opportunity compared to the individual animal inspection methods currently being used in South Australia and Victoria. There was no evidence that animals meeting rejection criteria were being loaded onto ships in Fremantle following the individual animal inspection processes we observed. There was considered to be a higher likelihood of animals meeting rejection criteria inadvertently being loaded onto the ship at the Adelaide port because the inspection processes in South Australia (at the premise and the port) were not considered to be as effective as the systems being applied in Western Australia. If the conclusions of the *Farmer Review* were based on observations of a system at the Fremantle port that resembled the system we viewed in Adelaide, then our findings are entirely consistent with those of the *Farmer Review*.

Our observations suggest that the process observed at the Fremantle wharf does not add pressure to the loading process. There was no suggestion from any of the inspectors that they were pressured to pass or load animals on to the ship that should have been rejected. The AAV was observed to be in close contact with all inspectors through the day and while there was professional interest in the quality and type of sheep and the nature of rejections as the sheep were being processed there was also a clear expression of the importance of impartial and independent inspections. These sentiments were also expressed by the exporters.

There was no indication that the Fremantle wharf inspection process represented a bottleneck over and above the constraint provided by the capacity of the loading ramp up into the ship. Our impression was that when two elevated trailers were being used on the wharf and up to four trucks

were being unloaded at once, the sheep were processed through the raised platform races in Fremantle in an orderly and effective manner and the review team felt that the overall rate of sheep moving from trucks onto the ship was no slower at Fremantle than at Adelaide. It is acknowledged that dependent on other factors (ship design, sheep characteristics and stockpersons) that the Adelaide port system may be associated with more rapid movement of sheep from the wharf to the ship.

The overall impressions of Fremantle were that sheep move in a quieter and more consistent and orderly manner than they did at Adelaide. In addition the Fremantle system appeared to provide more welfare benefits for reject animals than the system as employed at Adelaide. This is based on the observation that rejects in Fremantle are housed in a secure pen, out of sight of the wharf activities and under shade. They are inspected by the AAV and treated on the wharf if required. They are back loaded at intervals through the day so that no reject animal is present on the wharf for more than a few hours at most.

There were sheep rejected at the Fremantle wharf because of conditions that were likely to have been present prior to the sheep being loaded at the registered premise. If there had been an effective individual-level inspection applied to the consignment prior to loading at the registered premise then some or all of these sheep may have been removed from the export chain before being trucked to the port.

The following section provides a discussion of options for addressing this issue.

## 6.4 Options for Western Australia

It is acknowledged that one approach to the issue is to move the individual animal inspection process to the registered premises in Western Australia, to provide a mechanism to ensure that every individual animal was inspected prior to loading onto trucks at the premise.

Options for achieving this include implementing a system based on the systems described for South Australia or Victoria, or moving the current individual animal inspection system from the Fremantle wharf to the registered premise.

The Fremantle system of individual animal inspections currently conducted at the Fremantle port, is considered to be superior to the systems described for South Australia and Victoria, in terms of providing a clear view of every sheep and therefore allowing inspection against ASEL rejection criteria. These views were supported by the majority of individuals spoken to during this project who have experienced the inspection process performed at the Fremantle port. It is worth noting that these views included a number of individuals who had direct experience with both systems, either through experience in ports in two or more states, or through experience at Fremantle when one exporter was trialling a system based on the approach described in this report for South Australia.

Implementing the current elevated platform inspection process in registered premises in Western Australia would appear to require either a complete re-build of the yard complexes at the registered premises if the inspection facilities were to be incorporated into the yards, or alternatively a re-build of the loading area to allow incorporation of portable (or fixed) raised platforms. Either approach seems likely to involve considerable cost.

Consideration of the potential benefits suggests that implementing individual animal inspection at the registered premise is only warranted if it eliminates the need for individual animal inspection at the wharf.

One measure of the benefit of successful transfer of non-journey rejections from the port to the registered premise can be taken from the measure of rejects detected at the Fremantle wharf. Of 6 rejects per 1,000 sheep loaded perhaps as many as 3 to 4 may have been able to be detected at the premise if the same inspection process had been implemented at the premise.

It is also important to note that even if there were an individual animal inspection process that was conducted at the registered premise, it would not eliminate the need for a further and final inspection conducted at the port immediately before loading onto the ship. This process is expected to continue to detect rejects for the following reasons (even if individual animal inspections had been conducted at the premise):

- injuries or other conditions that occurred during the journey from premise to port (up to 2 per 1,000);
- conditions that may develop clinical signs in sheep after the individual animal inspection process conducted at the premise (likelihood rises as time progresses between inspections);
- conditions that may have been missed at any prior inspection process (these are considered unlikely if the Fremantle inspection process were to be implemented in full at the registered premise).

Export vessels that are loaded at Fremantle may take on anywhere from 60,000 to more than 100,000 sheep. If there are 2-3 rejects per 1,000 animals that occur at the port (assuming most or all non-journey rejects are removed at the premise), this will still equate to 2-300 animals for a shipment of 100,000 sheep. This is considered to be too many to manage effectively using the Adelaide system at the port, and therefore it is considered that the Fremantle individual animal inspection system at the port should be retained. If it can be argued that rejection rates at the port may be likely to be lower than 1 in 1,000 then it may be reasonable to at least consider an Adelaide-type system at the port to facilitate loading, as an alternative to the current Fremantle system. This approach should only be considered if there were effective individual animal inspections being undertaken at the registered premises.

It is also relevant to consider the welfare costs and benefits of changes to the inspection procedures.

Even if facilities existed at the registered premise that allowed the implementation of the Fremantle wharf inspection procedures at the registered premise, the process would require additional time and handling of sheep prior to trucking to the port. There are concerns that these additional activities will impose additional stress onto sheep, at a time when they are already about to encounter stressors associated with the truck journey and with port-side processing and loading on to the ship.

Handling livestock does have a welfare cost as indicated by findings from researchers that routine handling and transport of sheep (as for other livestock) may produce stress reactions in animals that can cause measurable elevations in circulating cortisol levels and may interfere with normal immune function and result in adverse outcomes such as abortion or increased risk of other diseases (Grandin 1997 1998). The Model Code of Practice for the Welfare of Animals – The Sheep[9],

[9] http://www.publish.csiro.au/pid/5389.htm

acknowledges that management procedures that are routinely applied in sheep husbandry, are beneficial because the consequences of not performing the procedures may result in far more pain and distress than the procedure itself. This is an acknowledgement that sheep husbandry procedures are themselves associated with adverse impacts. The best practice modules called *Making More from Sheep* that are presented online by Australian Wool Innovation Limited state that husbandry procedures should be planned to minimise sheep handling to reduce livestock stress[10]. The same sentiments were expressed in an RSPCA submission to the *Farmer Review* (Farmer 2011, p43). However, while there may be some potential for welfare costs associated with additional handling of animals for another inspection process, the level of handling is unlikely to result in any severe adverse effect on animal welfare because these are animals that have been handled before, travel to the yards does not require any great effort or time because sheep are housed close to the yards, the stockpersons are experienced at low stress handling and the yards are well designed. As a result welfare cost arguments alone are not considered sufficient to argue against an additional inspection in the registered premise.

It is also important to note a recent publication by Fisher et al (2010) that reported that healthy adult sheep, transported under good conditions, can tolerate transport durations and associated feed and water withdrawal periods of up to 48 hours without undue compromise to their welfare. The impact of this research is that the potential for adverse welfare impacts associated with those few sheep (less than 6 per 1,000) that are transported to the port, identified as rejects and transported back to the registered premises, is very low. The Fremantle wharf inspection process is managed very effectively, rejects at the port receive veterinary care as required, they are held in conditions that minimise adverse welfare outcomes, and they are transported back to the registered premise within a reasonable time frame (sheep were observed to be loaded back onto trucks every few hours during the day).

The conclusion reached by the review team was that individual animal inspection is an important part of ensuring compliance with the guiding principles of the export of Australian livestock, that the Fremantle system is the best system for achieving that, and that it is appropriate for this system to be implemented once only and at the wharf. There is insufficient benefit to warrant requiring two individual animal inspection processes (one at the premise and one at the wharf) so close together in time, and the most appropriate place to implement the inspection is at the wharf.

The fact that sheep were observed at the Fremantle port that met ASEL rejection criteria indicates that there may also be opportunities to improve the inspection and rejection processes currently being applied at the registered premises in Western Australia. As a more general statement, this principle means that where the last individual animal inspection process is applied at the port, it does not reduce the importance of effective inspection and rejection opportunities in the registered premise. Implementing improvements is dependent in turn on determining whether signs of rejection criteria may have been evident at receival (suggesting that inspection at receival may be capable of improvement) or whether signs of rejection criteria may have developed during the time when sheep are housed at the registered premise (suggesting that inspection in the period leading up to loadout may be improved). The ability to identify and monitor these issues is likely to be dependent in turn on having reliable collection of data on rejects (counts and categories) at different points along the supply chain including different time points in registered premises. It is not clear that such data are

[10] http://www.makingmorefromsheep.com.au/healthy-contented-sheep/procedure_11.5.htm

currently available. This sort of refinement is well suited to the development of a whole of chain QA system that might be implemented in the future in response to ESCAS requirements.

Given the view of the project team that the Fremantle system offers benefits over the systems currently in use in Victoria and South Australia, it may be appropriate to consider implementing the Fremantle system in other states. However, it is also suggested that it would be helpful to arrange a trial implementation of the Fremantle system in other states in order to determine whether the system is able to be implemented given possible constraints such as wharf access, and whether the system is assessed as being as effective in other states as it appears to be in Western Australia.

This suggested approach is considered to be consistent with the wording of the current ASEL and the *Export Control (Animals) Order 2004*. We acknowledge also that the processes currently in place at South Australia and Victoria also are consistent with the wording of the current ASEL and the *Export Control (Animals) Order 2004.* There is value in our view in considering a trial of the Fremantle system in other states since it may offer a more effective individual-level inspection than is currently being done in those states.

# 7 Conclusions

The individual animal inspection system as viewed in Fremantle is considered to provide a better opportunity to apply a consistently high level of inspection rigour to every animal and more likely to detect and reject animals that meet rejection criteria than the individual animal inspection processes in South Australia or Victoria. The individual animal inspection processes described in this report for South Australia and Victoria do not deliver a consistently rigorous inspection opportunity to every sheep and consequently are considered likely to have a higher likelihood of missing some animals that actually meet ASEL rejection criteria. Some caution is required for assessment of Victorian systems since we were not able to directly observe activities in Victoria during this review. However, the descriptions that we have obtained and the similarities between systems in Victoria and those observed in South Australia provide us with confidence that the Victorian systems are very similar to those we observed in South Australia.

The raised platform structure is a very effective method for moving animals in a secure and safe manner from truck to ship. All rejects at the Fremantle port are held in secure holding pens out of view of the general loading activities and under shade. They receive appropriate veterinary care and are transported back to the registered premise at intervals through the day. The Fremantle inspection system is therefore considered to have better potential to ensure optimal animal welfare outcomes both for sheep that are loaded onto the ship (those that pass the inspection) and for sheep that are rejected at the port, than the method viewed at the Adelaide port.

It is essential to have an effective method at the port to provide a last opportunity to inspect and reject animals before loading them onto the ship and to do this in a manner that has the least potential adverse effect on animal welfare.

It is also important to recognise that the port-side inspection is the last of many inspection and rejection opportunities that sheep will experience from the time they enter the registered premise until they are loaded onto the ship.

The current systems as reviewed at South Australia, Victoria and Western Australia are believed to be compliant with all requirements as stipulated in the ASEL and the *Export Control (Animals) Order 2004.* This conclusion is based in part on an interpretation of inspection requirements prior to loading at the registered premises that is expressed in the *Export Control (Animals) Order 2004*.

Reject animals are detected at the port that could have been identified and rejected at the premise. While implementing additional individual animal inspection processes at the registered premise would detect and remove some of these animals, it is not considered likely to eliminate all non-journey related rejections that may occur at the port and it does not eliminate the need to have inspection and rejection procedures at the port.

There is insufficient benefit to warrant having two individual animal inspection procedures very close together in time (one at the registered premise and one at the port). The most logical place to have the final individual animal inspection process is at the port, immediately before sheep are loaded onto the ship. This provides complete assurance that all animals that are loaded onto the ship are compliant with all ASEL requirements.

There is scope for improvement to other existing inspection and rejection processes currently being applied at registered premises. It is suggested that this could be incorporated into QA systems that are expected to be implemented in response to ESCAS requirements.

It is suggested that consideration be given to trialling the Fremantle system in other states.

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