

# Mortality Report 78 - Cattle exported by sea to Vietnam in March 2019

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## Summary

On 12 March 2019 North Australian Cattle Company Pty Ltd (NACC) exported 1,845 slaughter cattle to Vietnam from Townsville. The journey was completed in 11 days and completed discharge in Vietnam on 25 March 2019.

A mortality rate of 2.87 per cent (53 head) was reported. This exceeds the reportable mortality level of 1 per cent for cattle on voyages greater or equal to 10 days duration as prescribed by the *Australian Standards for the Export of Livestock* (ASEL).

After investigation by the department, it was found there were two discrete causes for this mortality incident:

- Mortalities early in the voyage were due to heat stress/pneumonia in *Bos taurus* bulls.
- Further mortalities were in the heavier *Bos indicus* steers attributed to difficulties during loading resulting in leg injuries with associated complications.

## Information reviewed

The department investigated the mortalities by reviewing the following information:

1. report from the exporter including a report from the veterinarian present at discharge
2. daily reports, end of voyage report and additional information from the accredited stockperson who accompanied the consignment on board the vessel
3. load plans and feed docketts from the exporter
4. documents from the Australian Government Accredited Veterinarian (AAV) who prepared the consignment
5. report and additional information from the Master of the vessel
6. documents and information from the regional departmental veterinary officer (DVO)
7. department records from previous and subsequent voyages

## Background

Prior to this voyage, NACC had exported 69 feeder/slaughter cattle consignments with a total of 163,461 cattle to Vietnam. NACC has reported two prior mortality incidents, both in 2016, on the same vessel (reports #61 and #64). The cause of the mortalities for these voyages could not be definitively determined, however both involved lameness and downer cattle.

## Investigation Findings

### **The Livestock**

The consignment consisted of 1,845 slaughter cattle averaging 520 kilograms. The cattle were sourced in Queensland and northern New South Wales from 38 properties of origin. The consignment consisted of predominantly *Bos indicus* steers and bulls with approximately 80 of these being *Bos taurus*.

### **Preparation in the registered premises**

One registered premises (RP) was used for preparing cattle for this consignment. It is located in Townsville and is routinely used to prepare livestock for export – 3,590 head of cattle arrived at the RP by 9 March 2019. The cattle were held in the RP for the required time to meet ASEL requirements.

During this period, the weather was mostly fine with 17.8mm of rain recorded on 8 March 2019 and a maximum temperature of 36.4°C with high humidity (Bureau of Meteorology, 2019). The cattle were examined on 11 March 2019 by an AAV and DVO at the RP. A total of six head were removed prior to loadout due to lameness with the rest being assessed as fit and healthy for export.

On 12 March 2019 1,150 head were trucked from the RP. The remaining animals were held over for another consignment.

### **The vessel**

The vessel involved in this incident is a purpose built livestock carrier used for livestock export to a range of markets. There have been three reportable mortality incidents on this vessel (Report #10, #61 and #64) involving cattle exported to Israel in December 2006 and Vietnam in March and May 2016.

### **Loading onto the vessel**

Based on the information received from NACC, all animals were loaded through the top door of the vessel due to the tide level. Some larger steers were observed to be weak during loading with some falling regularly. This was confirmed by the Master. The on-board stockperson reported that this was mentioned in discussions on board, but not during sign off or loading.

NACC reported that the entrance to the ship was too wide, with animals occasionally getting caught or turning around. Loading was stopped after the second truckload to add extra panels to narrow the entrance.

### **Conditions during the voyage**

The vessel experienced mostly smooth sailing throughout the voyage with the exception of day 8 when rough seas were experienced. Two animals sustained broken legs at this time and were subsequently euthanised. The vessel experienced one breakdown for a short period during the voyage, however livestock services were not affected.

The crew had a good working relationship, all pens had sufficient amounts of feed and water, with extra water being supplied through filling feed troughs during humid weather

conditions. Additional hatches were opened to improve ventilation and pen densities were reduced where signs of heat stress were observed in the cattle.

The stockperson noticed animals on deck 4 in hold 2 near the engine casing suffering from heat stress early in the voyage. To address the issue fodder supply to the affected animals was reduced, hand watering was increased and the side doors of the vessel were opened to increase air flow.

### Mortalities and treatments

The majority of the mortalities that occurred prior to day 8 in the voyage were attributed to heat stress in 10 *Bos taurus* bulls penned on deck 4 near the engine casing.

The stockperson and some of the crew conveyed that several of the heavy steers were in a weakened condition at the time of loading, resulting in a number of steers falling down and having difficulty getting back up during the loading and penning up process. It was noted that numerous injuries were sustained at this time especially around the hips and lower legs.

The stockperson noticed a number of animals lying down. In order to prevent further injury the stockperson sought to stand the animals up, but in the process several animals sustained leg injuries, including five suffering leg breaks – these animals were immediately euthanised by the bosun.

The remainder of the mortalities occurred in the heavier *Bos indicus* steers starting around day 7 due to leg injuries and subsequent secondary illness which was unable to be determined due to the lack of post mortem kit. The vessel did not have a knife suitable to conduct post mortem examinations so none were conducted during the voyage.

Sick animals were moved to hospital pens and given medical treatment as well as modified feeding where required. Injectable treatment of animals was difficult as both of the two Westergun pole syringes on board were malfunctioning and unable to be repaired, there was however a working MasterJect pole syringe on board.

The consignment experienced a total of 53 mortalities - 29 mortalities occurred during the voyage with a further 24 occurring in port. The mortalities in port were due to the euthanasia of downer animals that were unfit for discharge.

Table 1: Summary of mortalities by day and cause.

Date	Voyage Day	Sea/Port	Number of mortalities	Cumulative Mortality	Cause of mortalities
13/03/2019	1	Sea	0	0	
14/03/2019	2	Sea	2	2	1 Downer 1 Pneumonia
15/03/2019	3	Sea	1	3	Pneumonia
16/03/2019	4	Sea	2	5	1 Downer 1 Pneumonia
17/03/2019	5	Sea	3	8	1 Broken leg – Euthanised 2 Unknown

Date	Voyage Day	Sea/Port	Number of mortalities	Cumulative Mortality	Cause of mortalities
18/03/2019	6	Sea	3	11	1 Downer 2 Pneumonia
19/03/2019	7	Sea	1	12	1 Pneumonia
20/03/2019	8	Sea	6	18	2 Broken leg 3 Pneumonia 1 Unknown
21/03/2019	9	Sea	5	23	1 Bleeding 2 Broken leg 2 Unknown
22/03/2019	10	Sea	4	28	2 Bloat 3 Downer – Euthanised
23/03/2019	11	Sea	2	29	1 Downer – Euthanised
24/03/2019	12	Port	8	37	6 Downer – Euthanised 2 Pneumonia
25/03/2019	13	Port	16	53	16 Downer – Euthanised

### Exporter's Actions

As the number of mortalities increased the exporter notified the department that they would have a veterinarian present during discharge. The veterinarian conducted 15 post-mortems on animals that were unfit for discharge. The report provided by the veterinarian concluded that there were injuries mainly of the lower legs which progressed onto major tissue infections (cellulitis), fever, weakness and the inability to stand. The report stated that these findings supported the evidence of the stockperson that some of the larger steers were weak during loading and falling which may have manifested in these mortalities seven to eight days later.

The department required NACC to provide details of how they will mitigate the risk of future mortality incidents on their next four voyages of cattle from Townsville to Vietnam. This required consideration of:

- sourcing of animals
- their type (e.g. *Bos indicus*) and weight ranges
- whether NACC were implementing any management plans
- whether the fodder was being sourced from the same supplier as this consignment
- any other preventative measures NACC would implement to prevent a similar adverse animal welfare outcome.

NACC advised the department that they will implement the following actions for future cattle consignments to Vietnam to mitigate the risk of another reportable mortality incident:

- *Bos taurus* cattle will be individually assessed and monitored on entry and during their stay in pre-export quarantine to identify any signs of heat stress. Any clinical

signs of heat stress or pneumonia prior to loading will result in the animals being rejected for loading. *Bos taurus* cattle will be loaded at the bow of the vessel, furthest away from the engine room.

- As the **Bison Express is an older design vessel**, NACC will no longer load heavier cattle through the top door on this vessel, using only the side entrance (direct access).
- NACC will load extra saw dust (above ASEL standards) on all long-haul voyages for extra bedding and to be spread at pressure points in raceways for loading and discharge.
- **NACC will conduct assessments of all stockperson's capability and competency to perform required tasks prior to engagement on NACC voyages.**

The department required an Independent Observer to accompany the next voyage however a statutory declaration was provided by NACC stating an observer could not be accommodated on that vessel. As such, additional monitoring activities were required of the stockperson.

### **Australian Maritime and Safety Authority Evaluation of the Vessel**

The Australian Maritime Safety Authority (AMSA) conducted an investigation of the vessel on 22 May 2019 and concluded there was no apparent evidence of failure of livestock services that could be attributed to the cause of high livestock mortality.

### **Conclusions**

After review and analysis of all reports including NACC's investigation which detailed the clinical signs of the cattle on board, the department determined that the likely causes of mortalities were heat stress/pneumonia and leg injuries sustained during loading resulting in secondary issues and euthanasia. The department accepted the actions implemented by the NACC.