



## **Investigation into reportable cattle mortality level from Port Hedland to Jakarta Indonesia May 2007**

### **1. Purpose**

To report on the investigation into the cause of the mortalities in one consignment of cattle and to make recommendations with the objective of reducing the likelihood of a recurrence.

### **2. Summary**

The vessel has experienced two prior reportable mortality events involving different exporters. The dates of the voyages were: 1-6 May and 9-18 May 2007. On this voyage, nine cattle died out of a total loaded of 721, which equates to a mortality level of 1.25%. The cause of the high number of mortalities on board the vessel was investigated.

The conclusion of the cause of death is based on information provided by the stockman. The cause of death is not certain but was reported to be pneumonia, injuries (and subsequent euthanasia) and bloat.

### **3. Background**

The investigation into the mortality was carried out by reviewing the following information:

1. Stockman's end of voyage report.
2. Stockman's Daily Reports
3. Report from the exporter.
4. Records from the registered premises.
5. Report by the master of the vessel.
6. Report from the AQIS certifying veterinarian.
7. AQIS audit of the consignment.

**Table 1: Chronology of events**

<b>Date</b>	<b>Action</b>
10 May 2007	NOI and CRMP submitted (LNC 1681)
25 May 2007	NOI and CRMP approved
27 May 2007	721 cattle loaded Port Hedland. 1 death
30 May 2007	1 death
31 May 2007	2 deaths
1 June 2007	3 deaths
2 June 2007	Unloaded 712 cattle Tanjung Priok. 2 deaths (injuries - euthanased).

### **4. Findings**

#### **4.1 Deaths in Registered Premises**

The cattle exported from Port Hedland were received at the registered premises on 24 and 25 May 2007. The records of the registered premises indicated no mortalities over the time in the registered premises. Two cattle were rejected from the consignment due to an eye problem and lameness respectively. The 721 Brahman cross cattle were loaded on the vessel on 27 May 2007.

#### 4.2 Loading

The weights of the cattle were in accordance with the ASEL.

#### 4.3 Journey

The climatic condition for the cattle decks were as follows:

**Table 3: Climatic conditions**

Day of voyage	Dry bulb	Wet bulb	Humidity	Deaths	Daily water consumption (L)	Comments from daily reports
1				1	9	Stock travelling well. All hungry and eating a fair amount. 1 head died during loading Ventilation: good. Stocking density: a little crowded on deck 1 and 2 will be shifted around when settled.
2	28.5	24	68	0	16.4	Feeding and drinking well. Some (approx. 3 per deck) developing runny noses but no serious problems. Ventilation and stocking density: good.
3	29.7	26.4	77	0	30.7	Still travelling well. Decks remaining reasonably dry. Ventilation and stocking density: good.
4	30	27.6	84	1	32.8	Ammonia levels rising on Deck 2, however unsafe to wash down due to becoming slippery. Steer panting on Deck 2, and died from suspected pneumonia shortly after going down. Ventilation – hot spot on deck 2 – needed extra fan. Stocking density: Good.
5	29.5	26.7	80.5	2	33.5	2 mortalities deck 3: 1 panting, suspected pneumonia (cow) and 1 bloat (heifer). One down with sore leg deck 2. Decks 1, 2 & 3 continual panting.
6	30.4	27.5	80	3	33.8	Before decks were washed down cattle still panting. 2 down overnight, another during day, suspected causes of death: heat stress. Ventilation and stocking density: Good (after washing down).
7				2	17.2	2 rejected with hind limb problem. Steers from Deck 1 & 2. Unloading went smoothly. Steers with leg problem failed to stand so were rejected and destroyed.

The figures reported are the average across the 4 decks. The reportable mortality trigger for a short haul cattle voyage is 0.5 per cent. The reportable mortality level was triggered on 31 May 2007 (day 6).

The previous reportable mortality voyages on the vessel included reports of injuries due to the flooring on the decks of the vessel. There were two of the cattle were euthanased due to injury on this voyage. AQIS has received comments from stockman on previous mortality investigations which outline concerns with flooring of the vessel which may be a factor in the injuries sustained.

AQIS veterinarians also provided an opinion that the flooring was worn and therefore more slippery. A subsequent voyage used bedding on the floor of the vessel with good results.

The Stockman's end of voyage report indicates that ventilation was unsatisfactory from day 4, and an extra fan was required on deck 2. The wet bulb temperatures were not in the range which would have expected to cause heat stress but the stockman included comments of heat stress on localized areas of the decks.

In addition to the injuries the causes of deaths were reported to be pneumonia (2), bloat (1) and heat stress. The definitive cause of death for each animal was not determined. It is difficult to draw conclusions without definitive diagnosis and the recommendations relate to ensuring there is adequate investigative capacity if there is a problem identified on the vessel or consignments prepared by the exporter in the future. From the information available however, it is likely that injuries and respiratory disease were the cause of the mortalities. Respiratory disease and injuries seem to be the most common causes of mortalities in cattle exported from Australia.

### **Recommendations**

- . AQIS officers pay special attention during inspection of cows and reject any cows with problems because of their susceptibility to injuries- recumbency - Ongoing
- . AQIS places an AQIS accredited veterinarian on the next voyage of the exporter to monitor the cattle and provide accurate diagnosis in the event of a problem. Completed
- . The next consignment exported by the exporter has 3 days in the registered premises before departure.
- . AQIS places an AQIS accredited veterinarian on the next voyage of the vessel to monitor the cattle and provide accurate diagnosis in the event of a problem.
- . AQIS to write to AMSA to outline AQIS concerns with the worn flooring of the vessel.
- . AQIS consider mandating bedding to be used on the vessel unless the grip of the flooring is improved.

### **Actions taken**

The next consignment of cattle exported by the licenced exporter had additional conditions as follows:

1. A minimum of 3 days in the registered premises
2. An AQIS accredited veterinarian accompanied the next consignment to investigate mortalities.

The result of the voyage was as follows:

mortalities	Number loaded	Mortality rate
1	882	0.1%