



**Australian Government**

**Australian Quarantine and Inspection Service**

## **Investigation into reportable cattle mortality level on sea voyage from Fremantle, Western Australia to Jakarta, Indonesia, November 2007.**

### **1. Purpose**

To report on the investigation into the cause of mortalities in cattle exported by sea to Indonesia, and to make recommendations with the objective of reducing the likelihood of a recurrence.

### **2. Summary**

The cause of the reportable level of mortalities was investigated. Overall for the voyage, there were 14 mortalities of the 1,832 cattle loaded which equates to a mortality rate of 0.76%. The reportable mortality level is 0.5%.

The mortalities were associated with lameness in bulls requiring euthanasia and sudden death in cows. A definitive cause was not established.

### **Background**

The investigation into the mortality was completed by reviewing the following information:

1. Stockman's end of voyage report.
2. Stockman's Daily Reports
3. Report from the exporter.
4. Report by the master of the vessel.
5. Report from the AQIS certifying veterinarian.

**Table 1: Chronology of Events**

| <b>Dates</b> | <b>Day of Voyage</b> | <b>Action</b>                                                         | <b>Cumulative Voyage Mortality Total</b> | <b>Cumulative% Mortalities</b> |
|--------------|----------------------|-----------------------------------------------------------------------|------------------------------------------|--------------------------------|
| -            | -                    | Assembly of cattle                                                    | -                                        | -                              |
| 7/11/07      | -                    | NOI/ CRMP submitted                                                   | -                                        | -                              |
| 12/11/07     | -                    | NOI/CRMP approved                                                     | -                                        | -                              |
| 16/11/07     | -                    | Cattle loading in Fremantle<br>1832 cattle loaded.                    | -                                        | -                              |
| 17/11/07     | 1                    |                                                                       |                                          |                                |
| 18/11/07     | 2                    | 1 cattle mortality                                                    | 1                                        | 0.05                           |
| 19/11/07     | 3                    | 1 cattle mortality                                                    | 2                                        | 0.11                           |
| 20/11/07     | 4                    | 6 cattle mortalities                                                  | 8                                        | 0.44                           |
| 21/11/07     | 5                    | 3 cattle mortalities                                                  | 11                                       | 0.60                           |
| 22/11/07     | 6                    | 1 cattle mortalities                                                  | 12                                       | 0.76                           |
| 23/11/07     | 7                    | Arrived in Indonesia,<br>commenced discharge.<br>2 cattle mortalities | 14                                       |                                |

|              |   |                                   |           |              |
|--------------|---|-----------------------------------|-----------|--------------|
| 24/11/07     | 8 | Completed discharge in Indonesia. |           |              |
| <b>TOTAL</b> |   | <b>14</b>                         | <b>14</b> | <b>0.76%</b> |

**Table 2: Mortalities by Cause**

| Cause | Lameness and subsequent euthanasia | Sudden death | Unknown  |
|-------|------------------------------------|--------------|----------|
| #     | 3                                  | 10           | 1 (bull) |

The lameness was reported in the bulls and the sudden death occurred in the cows.

### 3. Findings

#### 3.1 Registered Premises

The cattle exported from Fremantle were present at the registered premises from 11 November 2007 until loading on the 16 November 2007. The records of the registered premises indicated no mortalities over the preparation period.

The record of rejects indicated there were four rejects. The reasons for rejection at the wharf were: damaged horn, blind in one eye, lame and pendulous udder.

#### 3.2 Loading

The records indicate the cattle were not loaded in accordance with ASEL.

The exporter stated that during their internal review of the incident, it became evident that the incorrect space table was inadvertently used for determining the loading density of the shipment. ASEL Table A.4.1.1 was used where Table A.4.1.3 should have been used, which resulted in actual numbers loaded exceeding the correct amount.

#### Journey

The climatic condition for the cattle decks were as follows

**Table 6: Climatic conditions:**

| Date     | Dry bulb (°C) | Wet bulb (°C) | Humidity (%) | Daily water consumption (L) | Daily weather conditions from daily reports                                           |
|----------|---------------|---------------|--------------|-----------------------------|---------------------------------------------------------------------------------------|
| 17/11/07 | 24            | 24            | 73.5         | 31                          | Partly cloudy, moderate following seas, Sx4. Vessel rolling moderately.               |
| 18/11/07 | 27            | 26            | 66           | 33                          | Cloudy, moderate to rough following seas, S x 4/5. Vessel rolling moderately.         |
| 19/11/07 | 28            | 28            | 68           | 38.6                        | Overcast sky, rough following sea, SSE x 5. Vessel rolling moderately.                |
| 20/11/07 | 29            | 29            | 72.5         | 41.02                       | Partly cloudy sky, moderate following sea, S x 4. Vessel rolling and pitching easily. |
| 21/11/07 | 30            | 30            | 72.3         | 44.6                        | Cloudy sky, slight following sea, S x 3. Vessel moving easily.                        |
| 22/11/07 | 31            | 31.5          | 71           | 46                          | Cloudy sky, slight following sea, S x 3. Vessel moving easily                         |

The figures reported are averages across the six decks. No data available for 23-24 November as the vessel was discharging in port.

There were two distinct factors contributing to the cattle mortalities on board the vessel: lameness in bulls requiring euthanasia and sudden death in cows.

#### **4 AMSA evaluation of the vessel upon return to Australia**

AMSA conducted an investigation in Darwin on 29<sup>th</sup> of November 2007. While this vessel has some outstanding generator issues prior to this voyage, it was noted during the investigation that all services were fully operational during the voyage. Therefore the mortality could not be attributed to any failure of any system on the vessel nor were the weather conditions severe.

#### **5 Conclusion**

A definitive cause of the mortalities was not established. The mortalities were associated with lameness in the bulls requiring euthanasia and sudden death in the cows.

#### **6 Recommendations**

Additional conditions are placed on the exporter until satisfactory results are achieved.

#### **7 Actions**

The investigation report was forwarded to the Livestock Export Standards Advisory Committee.

AQIS placed the following additional conditions on this exporter's license

- Cattle – when the ship has been loaded to approximately 95% of the estimated capacity, loading ceases until the weight of the loaded cattle has been calculated, and the number of animals required to achieve the vessel's designated load capacity has been determined and that an AQIS representative has given approval for loading to continue.

The following conditions applied for consignments exported to SE Asia consignments (Indonesia and Malaysia) by the exporter:

- 10% extra space above the ASEL is provided on board the vessel for the cattle.
- An AQIS accredited veterinarian is required to accompany the vessel.
- Cattle require 5 clear days in the registered premises.

The result of the export consignments with the additional conditions were as follows:

| <b>Number loaded</b> | <b>Number mortalities</b> | <b>Mortality rate (%)</b> |
|----------------------|---------------------------|---------------------------|
| 721 cattle           | 0                         | 0                         |
| 1,714 cattle         | 0                         | 0                         |
| 6,235 cattle         | 6                         | 0.1                       |
| 2,137 cattle         | 0                         | 0                         |