1) Suggest unified the reportable mortality levels to be used in both ASEL and MO43

Noting reportable mortality levels defined in MO43 (Table 8) and ASEL (Table 22) are different, suggest DAFF and AMSA to discuss and unify the reportable levels in both legislations.

2) Suggest the reportable mortality levels in both ASEL and MO43 to be reduced

Why reduce reportable mortality levels? This will be beneficial to all parties involved, including DAFF, AMSA, ship owners and livestock operators and also farmers by uplifting the **credibility** of DAFF and AMSA legislations – showing the world that how good the livestock welfare can be achieved by DAFF and AMSA legislations and through implementation of these legislations and also showing the world that how big is the gap between livestock vessels with ACCL and livestock vessels with NO ACCL.

Noting that NO one high mortality has been occurred since 20 August 2020 and overall mortality levels have been keeping decreasing, also noting by checking livestock vessels in 2022 that in 2022 only one voyage reached slightly over 50% of reportable mortality level in Table 8 of MO43 for voyage < 10 days and NO one voyage ≥10 days reached 50% of the reportable mortality level, this means when reportable mortality levels are reduced as much as by one half, only one voyage reached the reduced reportable mortality levels. It is believed that in 2023 overall mortality levels will be lower than those in 2022.

Based upon the above performances of livestock vessels, it is suggested that DAFF and AMSA to discuss with stakeholders to make lower reportable mortality levels, e.g. for cattle, buffalo, sheep and goats, a) for voyage < 10 days, use 50 or 60% of MO43 mortality levels (i.e. 0.25% or 0.3%), b) for voyages ≥ 10 use 50% of MO43 mortality levels (i.e. 0.5%). MO43 should also reduce reportable mortality levels for pigs, horses, donkeys, mules, camels and "any other species" for domestic sea transport.

3) Suggest stocking densities and bedding requirements in ASEL to be implemented by DAFF

Livestock welfare and mortalities for a voyage are largely dependent on how ASEL's stocking density requirement is implemented. This is because that when a pen is slightly overloaded, the animals in this pen will be dramatically deteriorated. The second important factor relating to livestock welfare and mortalities is bedding. Therefore suggest DAFF to develop procedures to verify ASEL stocking densities (as required in Table 5, 9, 10a, 10b, 11a, 11b, 12a and 12b for cattle/buffalo and Table 19 for sheep), and bedding requirements (as required in S5.2.4 and S5.3.8) for each voyage are ensured.

4) S4.1.19b) of ASEL

S4.1.19b) Suggest to change "Written instructions for pen and deck cleaning and maintenance (including bedding requirements) must be prepared by the livestock operators for each livestock vessel" but not the exporter.

5) Suggest to remain the reserve fodder to 3 days in S5.1.15 of ASEL

Noting that 2023 update of ASEL S5.1.15 says "an additional 20% or 2 days of reserve feed," it is suggested that this sentence to be changed as "an additional 20% or days of reserve feed,". This is because that MO43 secondary sources of power requires to provide power for livestock services for at least 3 days, in case livestock services especially main sources of power maybe required to be repaired at sea for 3 days. It should be noted that adding the three days of reserve feed harmonises the ASEL requirements with the requirement of MO 43 that has already been in place for some time.

6) Suggest to implement ammonia level control S5.1.20 of ASEL

Suggest to implement ammonia level of 25 ppm during the whole voyage (except during deck wash) in new ASEL and delete "Compliance with this standard will be delayed until further notice by the department". For reference only, known from internet that US Occupational Safety and Health Administration (OSHA) sets the permissible exposure limit for ammonia level of 50 ppm averaged over an eight-hour workday; and US National Institute for Occupational Safety and Health (NIOSH) recommended exposure level for ammonia of 25 ppm averaged over an eight-hour workday.

7) <u>S5.2.1, S5.3.1 and S5.5.1 of ASEL</u>

Suggest to add:

There is a misunderstanding among industry as to how to interpret decimal places. The below additions will clarify that pens cannot be overloaded through interpretating 0.85 of a cow to equal 1.

- S5.2.1: "... in Table 5." When calculating number of buffalo for each pen as per this table, the decimal places shall be rounded down.
- S5.3.1: "... and Table 12b." When calculating number of cattle for each pen as per these tables, the decimal places shall be rounded down.
- S5.5.1: "... in Table 19." When calculating number of sheep for each pen as per this table, the decimal places shall be rounded down.