

Senate RRAT Legislation Committee
Inquiry into the Performance of the Australian Maritime Safety Authority
Public Hearing - 11 November 2019

Answers to questions taken on notice:

Q1. Senator BROCKMAN: I don't want to put you to work, but if it's not public information could I get the list on notice?

Answer: Please refer to Attachment A – List of LAC Stakeholders.

Q2. Senator BROCKMAN: On notice, could I have the attendees, apologies and dates of the meetings since 2006.

Answer: The Livestock Advisory Committee meeting dates, attendees and minutes of the meeting, including detail of the attendance and apologies, is at Attachment B.

Meeting Date	Attendees	Minutes
08 May 2019	Listed in Minutes	Attachment B
28 March 2018	Listed in Minutes	Attachment B
18 May 2016	Listed in Minutes	Attachment B
05 November 2013	Listed in Minutes	Attachment B
28 May 2013	Listed in Minutes	Attachment B
<ul style="list-style-type: none">• Marine Order 43 Issue 6 came into effect in 2006. There were no meetings held between the implementation of the Marine Order and 2013 as there were no proposed changes to discuss.		

Q3. Senator BROCKMAN: Do you keep minutes of those meetings?

Mr Kinley: We do.

Senator BROCKMAN: I'll put that on notice for you to consider whether that can be provided. I assume it could be, but I'm happy for you to consider that.

Answer: Minutes of the Livestock Advisory Committee meetings are provided at Attachment B.

LAC Stakeholders
Wellard Ships Pty Ltd
Cattle Council of Australia
Australian Maritime Safety Authority
Korkyra Shipping
Wellard
Livecorp & Meat and Livestock Australia (MLA)
Wellard Shipping
RINA
Coral Line
Department of Agriculture
Livestock Shipping Services (LSS) [Hijazi & Gosheh Company]
Dens Ocean
Global Radiance Ship Management Ltd
LiveEX
Glocal Japan Inc.
Sheep Producers Australia
Department of Primary Industry - Tasmania
Labib corporation
Australian Livestock Exporters Council (ALEC)
Sheepmeat Council
RSPCA
Rural Export & Trading (RETWA)
Labib corporation
Department of Agriculture and Water Resources
KLTT
WellTech Marine Pte. Lte
Masri Livestock
Accord Navigation
Seaswift, Cairns
Go Marine
Australian Livestock Exporters council (ALEC)
Livestock Express
Agriculture WA
Otway Livestock Exports Pty Ltd
V. Ships Asia Group Pty Ltd/Global Radiance Ship Management Ltd
Hop Shun Shipping Co
Sheep Producers Australia
Owners Rep
Far Seas Shipping Inc.
NTX (Ocean Eight)
LiveShip
Livestock Express
Tsuneishi
Cattle Council of Australia
Hijazi & Gosheh Company (LSS)
Australian Livestock Exporters' Council



LIVESTOCK ADVISORY COMMITTEE

Stamford Plaza, Sydney Airport, Sydney

08th May 2019

Purpose of meeting

The 2019 meeting for the Livestock Advisory Committee.

Attendees

AMSA

David Anderson	Head of Cargoes and Technical, Vessel Standards (Chair)
Alex Shultz-Altman	A/g National Operations Manager, Central
Ali Afzar	Principal Advisor, Cargoes and Technical, Vessel Standards
Jessica Andric	Secretariat

Industry

Bjoern Clausen	Managing Director, Corral Line
Wayne Collier	Industry Capability Manager, LiveCorp
Lennart Ephraim	Chartering Manager, Livestock Express, Singapore
Jed Goodfellow	Senior Policy Officer, RSPCA
Mike Gordon	Rural Export & Trading (RETWA)
Alastair James	Australian Livestock Exporter's Council
Neel Kamal	General Manager, Ship Management, Dubai
Daniela Muresan	Corral Line Pty Ltd
Henrik Nissen	Managing Director, Dens Ocean Transport & Shipping, Singapore
Anoop Rejendran Nair	Manager, RINA Australia
Ayed Shawkat	Fleet Manger, Mira International Shipping S.A
Lynn Simpson	Doctor, CHOAS Veterinary Services
Mr Alex Zhange	Sinomarine Livestock Corporation Ltd.

Apologies

Roger Timms

Chairman, LiveShip

Agenda Item 1a. Welcome, introductions & apologies

The Chair, David Anderson, opened the meeting and welcomed the attendees, thanking them for their attendance. The Chair tendered the apologies received (noted above) and introduced AMSA staff.

Agenda Item 1b. Adoption of the agenda

The Chair introduced the agenda items, which were circulated to members a month prior, there were no comments received and members adopted the agenda.

Agenda Item 1c. Confirmation of Minutes of Meeting (28 March 2018, Ver 2.)

The Chair tabled the minutes of the previous meeting (28 March 2018, ver 2.)

RSPCA requested that a correction was made on item 4c. Page 5, '*Jed agreed*', became '*Jed stated*'.

No further comments were received from members.

Rural Export & Trading (RETWA) requested the minutes from this session be produced within the month. The record of the previous meeting was endorsed by members.

Agenda Item 1d. Action Record

Action items arising from previous meetings.

The Chair led the review of outstanding actions:

- Members agreed to close action items **3,4,6** due to achieving the action resolutions through this meeting (agenda item 4).
- **Action 2** on class undertaking MO43 compliance checks: Currently on hold but has been done under special authorisation in the past. Class would have to be familiar with the revised order noting this will need to be reviewed in 12 months. Action to remain open but owners of new ships are invited to contact the livestock@amsa.gov.au in the interim for AMSA to consider assessments of drawings by class under MO43.
- **Action 5** on members providing feedback on water supply: no formal feedback has been received, however the chair noted that this was likely because the order relates to new ships. No members had any comments, action to remain open.

Comment made by CHOAS to confirm that a pre-load inspection was under AMSA's jurisdiction, AMSA confirmed this and confirmed the voyage length is taken to be from the time the first animal embarks, until the last animal disembarks, rather than pilot to pilot.

Livestock Express, Singapore agreed it can be confusing to the masters, the Chair concluded the new order should help clear misinterpretations and Alex SA confirmed that AMSA Operations would review the appropriate forms to see if improvements could be made

Action: AMSA to update voyage type in the relevant forms

2. AMSA Update including any impacts from LEAWAG and HSRA review

The Chair provided an update on significant current impacts for AMSA, the chair noted that he is also acting as a subject-matter expert on the HSRA review, which is currently underway within, and under the jurisdiction of, the Department of Agriculture and Water Resources (DAWR).

Updates on the following topics were shared from an AMSA perspective, noting that members were able to follow progress through information publicly available on the DAWR website:

- LEAWAG
 - was previously run as Live Exports Standards Advisory Group (LESAG) and chaired by DAWR with Local, State and Territory Governments and AMSA as members. The role of LESAG was to inform DAWR whilst the department considered updates and amendments to their Australian Standards for the Export of Livestock (ASEL) With DAWR announcing major a review of ASEL, including considering how the reviews should be undertaken, LESAG was suspended.
 - DAWR put in place a new committee structure to review ASEL early last year In conjunction with that new process they also established the Live Animal Welfare Advisory Group (LEAWAG). LEAWAG is less focused on ASEL itself, and provides industry the opportunity to engage DAWR on animal welfare, for all species and not necessarily only live export. However, with the spotlight on live export, recent meetings have focused in on this topic. The Chair referred to Agriculture, who agree the focus for the Commonwealth was the role played in animal welfare and would confirm if the terms of reference and minutes for the LEAWAG sessions were publicly available.

Action: Department of Agriculture to confirm if the terms of reference and minutes for the LEAWAG sessions were publicly available. If so, documents will be circulated to members.

- LEAWAG meets twice per year with the first meeting in the last quarter of 2018 and the second meeting in March this year. At the second meeting industry provided some interesting updates, such as portable monitors to measure and record conditions in the pens during live export voyages, The chair noted that it is valuable for AMSA to be involved in LEAWAG, and also that some members of LAC are also engaged with LEAWAG.
- HSRA review (AMSA perspective)
 - The chair advised members to follow the progress of the HSRA review on the DAWR website, with the final report from the panel due to be available publicly within the next few weeks, subject to DAWR minister review.
 - Chair opened the floor to questions regarding AMSA's role, noting our involvement is in relation to ship issues.
 - CHOAS Veterinary Services asked about AMSA's involvement in wet bulb temperature monitoring. AMSA advised that the need for the monitoring and recording of these conditions sits within DAWR legislation. If the department requires certain equipment to be in the livestock space, MO43 would require that it wasn't damaged by wash-downs nor the animals, and was safe for animals and crew. AMSA would look at adding specific clauses if necessary for legislative and industry clarity.

- It was noted that it was a DAWR requirement from May, that vessels travelling to Middle East in the Northern summer will require data monitoring tools for wet bulb temperatures.
- Rural Export & Trading (RETWA) clarified on their vessel, they've installed monitors which are spread across decks, throughout the pens, e.g. about 35 to the vessel. It was confirmed it is a data logger, with wireless Bluetooth local monitoring through an app. The app provides the serial number ID of monitors within Bluetooth range and when an ID is selected the user can see the live readings. The information logged data is then downloaded and sent to the Department of Agriculture within five days of voyage end.
- As a minimum the monitors measure and record wet/dry bulb temperatures as well as absolute and relative humidity readings.
- The Department noted that their requirement is an electronic data logging tool to provide them with specified data. They have no specific requirement for the tool or app to use.
- Queries from ship owners have been received by AMSA, asking if this will be temporary or permanent ship's equipment as it's within the livestock spaces. AMSA confirmed that generally the small portable monitors are waterproof and from an AMSA perspective, we would need the devices to be intrinsically safe when fitted in areas where dust may be generated. Unless the equipment is permanent (hard-wired into the ships systems) it is unlikely AMSA will be required to amend MO 43

Action: Specification sheet for Kestrel to be shared with AMSA -
<https://kestrelmeters.com/products/kestrel-5400-fire-weather-weather-meter-pro-wbgt>

- Department of Agriculture shared that their interest is in how long a temperature remains at a certain level - differences and duration of maximums and minimums - as well as what the minimums and maximum values are. They will be able to learn the differences between decks on the one ship, and also the differences between vessels.
- RSPCA asked if voyages will also require a de-humidifier. AMSA advised that although there are reports of trials currently, to AMSA's knowledge no developed system currently exists. Theoretically dehumidification should work, however, on ships, factors such as the energy required and the best way to remove moisture from large volumes of air that are constantly refreshed are a major challenge.
- Actual content of the HSRA draft report has been amended based on external stakeholder comments, with other amendments providing some clarity and plainer English terms also included in the final draft report. A major need for clarity was identified by external stakeholders, surrounding the main recommendation of 28 degrees centigrade wet-bulb temperature (WBT) being the animal welfare heat stress threshold. The words were amended to clarify the conditions attached to this recommendation. Tina confirmed on behalf of the Department of Agriculture, that they are happy to take questions from the public throughout the review processes that they are undertaking.

- It was mentioned that, at times, the individual weights of animals is not provided to the master, with an average weight per head being provided instead. AMSA agreed that this has been noted as an issue, also noting this was covered by the requirements of MO 43.

2a. PSC figures for livestock vessels

AMSA provided operational Port State Control (PSC) performance of livestock vessels.

As had been reported in 2016 when speaking to LiveShip members at their annual meeting – livestock carriers had one of the best PSC years, having a detention rate of 5.3%, well below the average for all ships that year of 6.7%. However, in 2017 there was a slip to a detention rate of 10.2%, with the average for all ships that year being 5.3%. The livestock ship detention rate improved in 2018 to 7.7%, although that remained above the average for all ships that year of 5.6%.

In 2018, Livestock carriers were running around 2.6 deficiencies per inspection, compared to an average of 1.8 for all ship types.

So far this year, as of mid-April, there have been 16 PSC inspections, resulting in 31 deficiencies and a deficiency rate of 2.07 deficiencies per inspection. This remains higher than the average of 1.5 for all ship types, however at the time the snapshot was taken, there had been no detentions. Key areas of concern are operational management of the ships, stability, and structural equipment. It was noted that stability is both a PSC issue and a Livestock issue.

Main inspection issues include:

- Requirements of SOLAS Ch VI and MO43. Accurate weights of cargo being loaded is to be provided to the master before loading. Sufficient information must be provided to the master to plan the ship deck by deck, zone by zone. If an inaccurate average weight per animal is provided to load the ship, which we've witnessed – this will not be acceptable.
- Risks of having heavy loads (animals) on top decks, which reduces the vessel's inherent stability. For all decks, when animals start moving it applies a dynamic force for the ship to roll more.
- Issues of accuracy of information, for instance where an inaccurate gross mass was provided to the master, which is utterly unacceptable and creates stability issues. When the animals are being transported by truck a tare-off weight (from the weigh bridge) should be supplied to the ship for each truck once the animals are offloaded. There is little to no excuse for not providing accurate weights.
- Marine Notice 5/2018 was developed to provide an idea of what is expected, the master must have sufficient information to assess the cargo load plan.

Stability issues include:

- Free surface moments are being assumed to be minimal as tanks are taken as 100% filled. This is unrealistic. Maximum realistic filling of a tank that AMSA is aware of is 98%. In some instances, the crew have looked at an average mass of animals, often provided as a "standard animal", and assumed all animals are that weight and have sometimes not included the weight(s) of fodder on board throughout the voyage – so no changes are made to the calculations as fodder is consumed. Sometimes the weights of other consumables such as fuel and water are also not adjusted during the voyage. Changing weights in various decks within

the ship, and the increase in free-surface moments as liquid levels reduce in tanks, will generally lead to diminishing stability as the voyage progresses.

- The MO 43 stability requirements add a minimum roll period, ensuring the ship doesn't roll too fast or too slowly, in a way the animals cannot compensate for leading to animals losing their footing as they move around. This must be complied with.
- Loose gear and spares not being included in calculations has also been observed in many cases.
- Fodder weight not accurately known with fodder cubic volume being used in calculations rather than weight – the seller needs to provide the weight, or the volume and accurate density of the fodder at delivery.
- Crew not monitoring the drafts and the checking the stowage plan as the vessel is being loaded – sometimes not knowing what the plan is or what plan to follow. The vessel's actual drafts should be consistent with the calculated drafts in the stowage plan throughout the loading (or discharging) operation.
- The fact that some crews are struggling with stability calculations comes down to crew training. Appropriate training must be completed as a basic requirement on any ship under SOLAS, so this is an area of concern for AMSA.

AMSA urged that members (where they are involved in owning or operating a livestock ship) do not forget overloading (submerging the Load line mark), as well as stability. The last thing AMSA wants to see is ship roll over, risking the safety of the animal and all on board.

AMSA advised there is a focus on livestock ships within our Parliament, and we are all at the forefront of media and press comments. If you have a breakdown, under PSC and AMSA rules, you must complete a report to AMSA. AMSA also urged members to be realistic when providing repair timeframes.

AMSA will continue to inspect as per usual, we have a stability checklist we provide our surveyors.

Action: Stability checklist to be distributed to members

Corral Line advised that as a company, they check the loading plans and calculations prior to every loading of their vessels. The Chair commented that it is a requirement of MO 43 for the person providing the weights of animals to provide accurate weights. If the weights are found to be inaccurate, the loading may be stopped, the vessel detained and persons responsible prosecuted. The chair reiterated that alex.schultz-altmann@amsa.gov.au is the best email address to use to report any information, confidentially.

New contact points at AMSA were shared providing more capacity:

1. Josh Smith, Principal Marine Surveyor, Port State Control, Ship Inspection
2. Taiping Cheng, Senior Advisor Ship Inspection and Registration
3. Marco Tesoriero, Inspections, Ship Inspections and Registration

Any operational issues should be sent to the group e-mail address livestock@amsa.gov.au, which includes the individuals identified above. The Chair invited members to also provide any feedback on

PSC on livestock ships to that same address, copying in alex.schultz-altmann@amsa.gov.au as members see fit.

3. Industry Reports

3a. Floor open to industry participants for further update

The Chair invited members to provide an update on issues affecting industry.

LiveCorp

- LiveCorp advised they are currently undertaking a trial on an empty, clean vessel in port, running ventilation fans and recording conditions in the livestock spaces, then adding and running de-humidifiers before again recording conditions. The preliminary trials will determine the impact of de-humidifiers (if any) on a vessel without livestock.
- LiveCorp confirmed there are two vessels they are planning to use and that they have agreements with the parties involved to conduct preliminary trials in the Middle East, in June or July. The trials will be witnessed by a technology advisor panel, which consists of an independent scientific advisor and the companies that are developing the dehumidification technologies.
- AMSA advised trials are of high interest and would like to be involved in terms of being kept informed about the trial outcomes. Several factors such as the additional power required to run the dehumidifiers is likely to have an impact on a livestock ship operating under MO43.
- RSPCA asked if AMSA will be involved in the preliminary trials and LiveCorp advised that since there were no actual changes being made to vessels operating under MO43, they will keep AMSA informed. AMSA agreed that once it is known an outcome acceptable to industry and ship owners is possible, AMSA would need to be involved more closely in the designs and performance of any dehumidification systems intended for use under MO43. The chair noted that AMSA recognised LiveCorp and Industry, including ship owners, are leading the way with this project, noting it is generally understood the outcome may be it isn't possible to achieve the desired outcomes.

Livestock Express, Singapore

- The ventilation measurements in the new order are clear, including the ½ metre per second airflow requirement, however there is confusion about how these relate to the heat stress assessment, which uses a metric called Pen Air Turnover (PAT). AMSA clarified that PAT is a metric used in the industry heat stress risk assessment model, but it cannot be compared to MO43 ventilation requirements. MO43 requires that volumetric air changes (plus the linear airflow) are measured and recorded, whereas PAT uses a volumetric airflow applied to the pen area to provide a number then used in the model. The model relates to stocking densities under DAWR legislation.
- Stocking densities – DAWR were asked about the announced draft requirements that are coming into effect under their legislation. There were some intended allowances in stocking densities that are based on the historical performance on vessels. It wasn't clear what the criteria were going to be and how DAWR would apply whatever criteria are decided. DAWR confirmed the upcoming conditions were draft at the moment and that they would ensure the details would be clear once they are announced.
- Long-penning is still an issue whereby some crews are asked to remove rails between pens, resulting in a pen that no longer complies with the maximum sizes specified in MO43. It can also effect stocking densities and the number of animals able to be carried, since DAWR legislation sets stocking densities based on the "compliant" area of each pen. Base density

was developed in order for animals to be able to access water and food, and causes bunching and stability issues. Seen on board ships, that Independent Observers have instructed crew to long pen.

- AMSA confirmed that from an MO43 perspective the maximum pen areas cannot be exceeded at any time that animals are in the pens. The maximum sizes in MO43 are the result of scientific trials and allow for animal circulation to access food and water. They prevent large unoccupied areas that lead to animal bunching, which leads to animals being more likely to be crushed and ship stability issues.
- DAWR confirmed the practice also raises issues with their legislation – even though it appears it is being done to reduce stocking densities with the intention to provide a more comfortably stocked pen for the animals.

The Chair reiterated that any issues with MO43 compliance, such as long penning, should be reported to AMSA using the livestock@amsa.gov.au e-mail address.

Action: Department of Agriculture and AMSA provide a joint summary on the topic of long penning and issues so it can be provided to the Masters and can be published on the AMSA website.

LiveCorp

- With the recent government reviews of and within DAWR, industry is acutely aware we are in a state of change, and that DAWR changes to legislation has been done in light of keeping the industry moving. Industry is aware of comments that have arisen around live exports in general, and is looking at how best to move forward to continue to meet requirements.

Department of Agriculture

The Department is working closely with AMSA, including monthly face-to-face meetings, as well as with LiveCorp with regular meetings with them as well. . They are currently working on stocking densities for exports during the northern summer months, with the new conditions, originally planned to be implemented from 1 May 2019, now planned to be implemented from 1 July 2019. The delay is to develop policy detail and Industry will be invited for comment as soon as possible.

AMSA advised Agriculture, LiveCorp and AMSA are receiving feedback and comments from all sectors of Industry regularly, and while change does not occur overnight – they are taken on board.

The Chair reiterated that for any operational issues with MO43, please contact livestock@amsa.gov.au. If they wish to provide any feedback on PSC on livestock ships, they should use that same address, copying in alex.schultz-altmann@amsa.gov.au as they see fit.

3b. Update from Industry on implementation of Marine Order 43 (Cargo and cargo handling – livestock) 2018

The question was posed from Corral Line - are automatic water troughs being mandated by AMSA. Corral Line expressed the concern, as they have installed manual delivery systems and if a new mandate were to come about, to move to automatic would be costly for the business.

AMSA advised MO 43 does not mandate any specific mechanism to deliver water to the troughs, and does allow for manual filling of troughs.

Rural Export & Trading (RETWA) noted that interpretation of implementation dates within the order itself was difficult compared to the way these were expressed in Issue 6. They and many others reading and complying with the order strongly preferred the date specified being the first day or the last day of the requirement. They suggested the dates should be presented as they have been in previous orders.

The chair noted the comments and explained the changes were part of the way modern drafting is done. He advised that the comments would be passed on within AMSA for consideration when drafting orders in future, however with AMSA needs to follow government rules and guidelines when drafting legislation.

Action: AMSA to provide feedback to drafters that Rural Export & Trading (RETWA) noted interpretation of implementation dates within the order itself was difficult compared to the way these were expressed in Issue 6, strongly preferred the date specified being the first day or the last day of the requirement.

4. Review of Actual cost impacts of updated Marine Order 43 - 2018

Chair welcomed the committee back from the lunch break and provided background on MO43 having certain hardware items that were originally to be sunset after 5 years. These changes would have impacts on stakeholders, however by following best practice to widely consult and provide reasonable timelines in which to comply, AMSA was able to draft the order without being required to follow the Regulatory Impact Statement (RIS) process overseen by the Office of Best Practice and Regulation (OBPR). . Before the draft order was made, the government made a decision that included changes to the timelines for sunseting. The decision required the 5 years provided for each item in the draft order to be reduced to around 18 months – 1 January 2020. The decision also provided that a RIS was not required for those specified changes. The changes were made as required and the order came into effect from 1 July 2018.

Government decisions to waive the requirement for a RIS need to be followed up. This allows the affected stakeholders to provide the government with the actual impacts of the decisions for which a RIS was waived. Stakeholders effected by the changes (for which a RIS was waived) can provide AMSA with actual costs

AMSA is required to provide the Office of Best Practice Regulation (OBPR) with actual costs and actual impacts from effected stakeholders, for the very specific items within the order.

From an AMSA perspective, if we do not get any stakeholder costs or impacts provided by our stakeholders, we cannot report this, even as an estimate, which misses the opportunity to provide this through to high levels of Government. Stakeholders are encouraged to provide their actual costs to Government, in monetary value or in impacts to business so that AMSA can pass this to Office of Best Practice Regulation (OBPR)

RSPCA summarised that AMSA is requesting regulatory burden measurement occurring after the fact, rather than regulatory costing assessment. The policy decision has already been made, so it's an assessment of the regulatory burden as opposed to the RIS which proposes different policy options.

The chair confirmed this was the case since the RIS had been waived by government.

The Chair asked for costs within the next 3-4 months, noting they are due from AMSA by the end of the year. <https://www.pmc.gov.au/regulation/compliance-reporting/post-implementation-reviews>

4a. Twin Tiers

- A general view was expressed that 0.5m per second airflow as required by MO43 and twin tiers do not work well together. AMSA acknowledged this was an issue widely discussed in the review of MO43, however the agreed outcomes were as they appear in the order. The impacts sought as part of the PIR process are the impacts of twin tiers not being permitted from 1 January 2020.

4b. Ventilation

The Chair asked the Committee to share any impacts of the government decision to bring forward the date of implementation for changes to ventilation requirements.

Mira Ship commented in regards to re-circulation fans as to how they fit in to the ventilation requirements. AMSA advised that airflow must be measured across pens and air flow must be from the source through to exhaust. Re-recirculating air is not recommended, instead a better option may be to add ducting into problem areas

Rural Export & Trading (RETWA) asked for more information about this issue and AMSA advised that as well as ensuring airflow over the animals, to focus on marginal areas in terms of the measured airflow rates and add ducting to direct airflow to meet the airflow minimums. The order permits 4% of pen area to not meet the minimum airflow requirements but it had to be noted this was only in the area immediately adjacent to the ship's side structure/hull.

The testing and reporting for ventilation should be carried out by independent third parties. AMSA then carries out spot-checks to see if there is any significant deviation. The livestock space ventilation system can be designed, installed and tested by any company offering heating, ventilation and air-conditioning (HVAC) services. The volumetric air-change measure is based on same parameters as applied to ro-ro carriers to clear vehicle exhaust fumes. The minimum airflow on top of that means you have to evenly distribute the air between ventilation inlets and outlets..

5. Other business

AMSA advised that many of our archived (hardcopy) documents have been sent to the National Archives of Australia. Several sets of livestock ship approved drawings were also sent meaning that to review those paper drawings, AMSA will need to go to the Archives and view them in person.

Members were asked to please arrange for another set of drawings to be sent to AMSA if we request it.

AMSA reminded members that the sets of approved drawings we hold are for our records of approval only – they are not for owners of the ships concerned to rely on as a set of approved drawings in case they misplace the sets they must or choose to have. One set of approved drawings must be on board the vessel with additional sets held as required by the vessel owner, operator and sometimes the building yard. Three sets of drawings are usually the minimum number sent to AMSA

by owners for approval, so that once we keep one approved set there are at least two approved sets returned to them.

CHOAS veterinary services asked about a previously raised item, on pre-loading inspections, and if it is possible for AMSA to also undertake a post-loading inspection. They understood resourcing and cost challenges involved but noted that in the past livestock ships have been noted to depart down by the head, meaning the pens cannot be drained and cattle sit in their own sewage for much longer than necessary. Independent Observer reports indicate that this is still happening. AMSA advised that from a MO 43 and PSC perspective, we have the right to go aboard at any time during loading and we follow-up reports of suspected non-compliance with our legislation.

A livestock ship sitting at the wharf down by the head is something AMSA wants to know about, and urged this and any similar instances are reported. AMSA also advised DAWR that if any evidence of suspected non-compliance with MO43 from the Independent Observers could be provided to AMSA, we would of course be very interested to review them.

AMSA advised that we will remind attending surveyors to check the drainage systems in all respects when inspecting prior to loading, s, noting that MO 43 covers this topic in detail, including that pens must drain freely.

Action: AMSA to remind attending surveyors to check the drainage systems in all respects when inspecting prior to loading.

Action: AMSA and Agriculture to establish an agenda item around Independent Observer reports in their monthly meetings.

The Chair opened the floor to members to raise any additional matters. There were no other business matters raised by members.

6. Next meeting and close

Chair advised the next meeting would likely be early next year, depending on member interest and feedback. Corral Line suggested if there were to be another meeting this year that it be combined with LiveEx conference on October 30 - 31 2019, Townsville, QLD.

The Chair closed the meeting at 2pm, thanking members for their attendance.

Summary of actions arising

#	Action item	Owner
19-1	AMSA to update voyage type in the relevant forms	AMSA
19-2	Department of Agriculture to confirm if the terms of reference and minutes for the LEAWAG sessions were publicly available. If so, documents will be circulated to members	Department of Agriculture

19-3	Specification sheet for Kestrel to be shared with AMSA – member to confirm: https://kestrelmeters.com/products/kestrel-5400-fire-weather-weather-meter-pro-wbgt	Rural Export & Trading (RETWA)
19-4	Department of Agriculture and AMSA provide a joint summary on the topic of long penning and issues so it can be provided to the Masters and can be published on the AMSA website.	AMSA / Department of Agriculture
19-5	AMSA to provide feedback to drafters that Rural Export & Trading (RETWA) noted interpretation of implementation dates within the order itself was difficult compared to the way these were expressed in Issue 6, strongly preferred the date specified being the first day or the last day of the requirement.	AMSA
19-6	AMSA to remind attending surveyors to check the drainage systems in all respects when inspecting prior to loading.	AMSA
19-7	AMSA and Agriculture to establish an agenda item around Independent Observer reports in their monthly meetings.	AMSA / Department of Agriculture

Livestock Advisory Committee (LAC) Meeting – 28 March 2018

Minutes

Attendees	
Mr Alex Schultz-Altman Mr Greg Pusey Mr David Anderson Mr Ali Azfar Mrs Ana Thomson (Secretariat)	AMSA
Mr Roger Timms - LiveShip	timms@webone.com.au
Mr Steve Meerwald – Harmony Marine	charter@harmonymarine.sg
Mr Mike Gordon – Rural Export & Trading WA Pty Ltd (RETWA)	retwa@retwa.com.au Mike.Gordon@retwa.com.au
Mr Anoop Rajendran Nair - RINA Australia	Anoop.RajendranNair@rina.org
Mr Paolo Bianchi & Mr Fred Troncone - Wellard Ltd	p.bianchi@wellard.com.au f.troncone@wellard.com.au
Ms Imogen Goode - Livecorp	igoode@livecorp.com.au
Mr George Assaf – ALKHALAF Group of Companies	gassaf@arrowexport.com.au
Mr Tom Dawkins – Livexcouncil	media@livexcouncil.com.au
Dr Jed Goodfellow - RSPCA	jgoodfellow@rspca.org.au
Dr Lynn Simpson – CHAOS Veterinary Services	Lsimpson_5@hotmail.com
Mr Seiya Koyama – Glocal Japan Inc.	seiyakoyama@gmail.com
Mr Ayed Shawkat - Miraship	Ayed.shawkat@miraship.com
Apologies	
Stephen Crisp – Sheep Producers Australia	
Sarah Kahn – Department of Primary Industries and Regional Development	
Margo Andrae – Cattle Council of Australia	
Bob O'Halloran – Karumba Livestock Loading P/L	
Lea Hansen – Department of Agriculture	

The meeting commenced at 9.35am

1. Procedural Items

a. Welcome and introductions

The Chair, David Anderson – Head of Cargoes & Technical, Australian Maritime Safety Authority (AMSA), welcomed participants, briefing them on the available facilities and emergency procedures applicable for the building during their visit.

The Chair informed members of the notified apologies, details of which are reflected in the above participant list.

b. Adoption of agenda

The Chair referred members to the proposed meeting agenda and the organisation they were representing.

There were no comments received from members in regards to the proposed agenda.

c. Minutes of last meeting

The Chair informed that the draft minutes of the last meeting held on 18 May 2016 were circulated as tabled. The Chair informed members that the draft minutes were endorsed subject to any final comments being received via email.

There were no comments received from members at the meeting in regards to the draft minutes dated 18 May 2016.

d. Action items arising from previous meetings

The Chair tabled the action items captured in the draft minutes of the last meeting held on 18 May 2016. The following updates were provided by the Chair in regards to each action item:

1. AMSA website – AMSA has a new website and the Cargoes and Dangerous Goods webpages have also been updated. The Chair advised members that AMSA has received positive feedback from the public in regards to AMSA's new website. AMSA clarified it welcomes feedback in regards to the new website, which can be provided via the website. *(Action item proposed to be closed).*
2. Class undertaking MO43 compliance checks – The Chair updated members of the IACS classification society. The Chair explained that this action will remain open to allow the plan to be approved, and in the interim AMSA will continue to monitor. Alex informed members that AMSA needs to be contacted to obtain an approval if they wish to submit drawings reviewed by their classification society *(Action item to remain open).*
3. Information on water bowls – The Chair informed members that this action will be addressed as part of the review of Marine Order 43 (agenda item 4). *(Action item proposed to be closed).*
4. Ships (Danny F II and Haider) had they complied with MO43 – The Danny FII had traded from Australia in the past and held an ACCL. The ACCL was withdrawn when the ship no longer complied with MO43 and owners continued to trade her elsewhere. The Haider was converted by owners with a view to the vessel complying with MO43. During conversion owners decided to complete the work without obtaining an ACCL. The vessel therefore has not been issued with an ACCL. *(Action item proposed to be closed).*
5. Comments to be provided on restriction on carriage of livestock – The Chair advised that comments have been received and have been taken into account in the draft order. *(Action item proposed to be closed).*
6. Comments on twin tier ships – The Chair informed members that this action will be addressed as part of the review of Marine Order 43 (agenda item 4). *(Action item proposed to be closed).*
7. Comments on day tanks – The Chair informed members that this action will be addressed as part of the review of Marine Order 43 (agenda item 4).

(Action item proposed to be closed).

8. Comments on railing spacing above 1.4m – The Chair informed members that this action will be addressed as part of the review of Marine Order 43 (agenda item 4).

(Action item proposed to be closed).

2. AMSA Updates

The Chair updated members of AMSAs restructure in December 2017 and the resulting organisational changes within AMSA. The Chair also updated members of the National System for domestic commercial vessels which becomes fully effective as of 1 July 2018.

Alex clarified his role within AMSA and advised members to continue to use livestock email address for queries, etc.

a. PSC figures for livestock vessels

Alex updated members on the 2017 PSC figures, noting that there was slippage in the rates. However, the 2018 figures are more positive, the lowest detention rates in the last 10 years.

Roger queried if the data separated out the different types of ships (old vs new ships). Alex confirmed that the data did not separate the different types of ships/vessels.

Roger noted that the 2018 monthly reports were not available on the AMSA website. Alex confirmed that the last reports displayed on our new website are dated 2017. AMSA is experiencing display issues on the new website with 2018 monthly reports. AMSA is working with IT to resolve the issue, in the interim the Chair advised that ASMA will distribute the PSC figures for 2018 in the coming weeks.

Action item: AMSA to distribute to LAC members the PSC figures for 2018.
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3. Industry Updates

a. Floor open to industry participants

The Chair opened the floor to industry participants if they had any issues they wished to raise.

No comments/issues were received by LAC members.

4. Review of Marine Order 43

a. Overview

The Chair updated LAC members of the review of Marine Order 43 (Cargo and cargo handling – livestock). The Chair advised that AMSA is seeking comments by COB 6 April 2018 to facilitate the making of the marine order.

Greg advised members that AMSA would also appreciate feedback on the language used within the marine order, if there are any language issues.

Roger asked if the comments made today by committee members would be captured in the draft before going out for external consultation on 6 April 2018. Greg advised that if the changes are minor, AMSA would capture the changes in the current draft. If the changes are major, then the committee would discuss further to determine the best way to capture the changes.

Jed asked if a Regulation Impact Statement (RIS) was needed for the changes to Marine Order 43. Greg advised that a RIS is not required at this stage, only a Preliminary Assessment form (PAF) is required and would be submitted to the Office of Best Practice Regulation (OBPR) prior to sending the marine order out for external consultation. The OPBR will then advise if a RIS is required.

Greg advised members that AMSA is still reviewing/updating and finalising Division 5 of Marine Order 43. AMSA is hoping to have it finalised before releasing the marine order for external consultation.

b. Policy changes

The Chair tabled the policy settings paper for Marine Order 43. The Chair updated the LAC members on the following 12 policy changes:

1. Improvements to drainage arrangements for new vessels
2. New minimum structural fire protection standards
3. MARPOL holding tank requirements
4. Removal of the two-tier pen option
5. Ventilation on open decks
6. Ventilation visual and audible alarms on the bridge
7. Rail spacing and top rail height for cattle
8. Rail spacing for sheep on open decks
9. Clarification of reportable levels and information required for livestock mortalities
10. Amendment to declarations for bulk fodder
11. Introduction of requirements for emptying fodder tanks where a vessel is equipped with more than 2 fodder tanks
12. Introduction of requirements for the carriage of camels (noting this is currently covered in Annex B to ITS 43-02)

The policy paper generated the following discussion amongst members:

Lyn asked if the order would include the introduction of harnesses for loading camels onto ships. The Chair confirmed that Marine Order 43 does not cover the loading of camels onto ships using lifting equipment such as harnesses and cranes. This is covered by Marine Order 32 (Cargo handling equipment).

George asked if Marine Order 43 would consider the damage camels can cause on ships. George explained that camels are known for chewing things overhead including pipping, etc. which can cause issues. The Chair confirmed that consideration would be given to perhaps capturing in the order issues around camels chewing overhead piping, etc.

Imogen queried in regards to the fodder project, did the issue with the moisture content associated with fodder sit with the manufacturers. Alex clarified that manufacturers are taking readings of both the moisture and temperature of the fodder. Alex clarified that temperature of the fodder should be taken when loaded onto the ship.

The Chair also confirmed that AMSA will be capturing the requirements associated with the moisture, temperature and oil content of the fodder in Marine Order 43.

Steve expressed a concern with loading fodder onto vessels. Steve advised that there was a need for guidance to industry on when to conduct temperature and sampling of fodder. Alex clarified that there is already a requirement in the marine order that the temperature of the fodder needs to be taken at the time of loading.

The Chair confirmed that the requirements of loading fodder onto vessels has always been an issue. AMSA will clarify in the marine order the requirements of conducting testing of fodder to ensure it is tested at the time of loading.

c. Wellard consultation feedback on MO43

The Chair tabled the paper from Fred Troncone on behalf of Wellard at the meeting, and asked Fred to discuss his paper.

Fred updated members on the feedback Wellard provided in relation to Marine Order 43. Fred discussed the three key themes:

1. The addition of sunset clauses to grandfathering provisions,
2. Age limit of vessels, and
3. Ban double tiered vessels.

Fred clarified that he would like to see the provisions phased in over time and not imposed immediately.

Jed advised that on behalf of the RSPCA they agreed with Fred's comments. Jed agreed to the provisions being phased in over time and not imposed immediately.

The Chair acknowledged the comments made and advised that any other comments/feedback from LAC members in regards to the provisions or any other issues would be welcomed.

Steve asked what other international standards are likely to impact the older vessels. Alex clarified that air pollution emissions requirements pertaining to lower sulphur limits from engine exhausts, which come into effect on 1 January 2020, could be a significant issue for vessels with older diesel engines in particular.

The Chair briefed members on AMSA's role within IMO and the implications of IMO on industry.

The Chair also informed members that sunseting is only being applied to the provision of fire protection. AMSA does not have evidence to apply other sunseting provisions at this stage; however, will continue to review the other provisions.

Roger agreed with the Chair's comments and stated that sunseting should not be imposed on other provisions. Roger believes that poor performance is the issue with vessels, so sunseting should not be imposed.

Jed agreed that provisions should be phased out if they pose a risk on animal welfare.

Paolo and Roger both commented that vessel standards are very different internationally. They both advised that there is a need for an international code to align international standards.

The Chair confirmed that AMSA had looked at developing a livestock carrier code for submission to the IMO; however, as a priority AMSA wants to update Marine Order 43 first. Indications are that other members at IMO are not fully engaged in developing a code – noting a very small proportion of nations export livestock.

d. Marine Order 43 comparison document

The Chair tabled the Consultation on Draft Marine Order 43 comparison document and asked for comments/feedback.

The following comments were made by the LAC members:

Section 15:

- Lyn and Jed noted under section 15 should "Severe weather conditions" be defined.
- Paulo noted that not all the technical guidance is included in the marine order; therefore, making it difficult to understand/follow. Alex took note to develop guidance material for marine order 43.
- Jed noted should the note under section 15 "Severe weather conditions" should be included in the body instead of a standalone note. The Chair will refer this to the drafters for consideration.

Section 21

- Jed commented in regards to section 21 – carrying livestock in more than 1 tier, will AMSA be conducting an economic and data analysis on the implications to industry on sunseting this provision when submitting the draft for external consultation. The Chair confirmed that AMSA can't conduct a cost analysis without input/data being provided from industry. The Chair indicated that AMSA is happy to receive feedback/data/costings from industry after the LAC meeting in regards to sunseting the provision of more than 1 tier. The Chair asked LAC members to provide input/data on the implications of a 5 year sunseting arrangement on more than 1 tier.

Action item: Members to provide input/data to AMSA on the proposed 5 year sunseting arrangement for the provision of more than 1 tier.

- Roger asked in regards to the structural fire protection provision, why was this not being applied across all vessels. Alex clarified that the fire protection provision is being applied to all vessels. New ships must comply from the date of effect of the order, with existing ships needing to comply 5 years after that. Alex advised he was happy to further clarify with Livestock Express offline.
- Lyn noted that there was nothing specific in marine order 43 that detailed the height requirements or the installation of adjustable fodder/water containers to accommodate the difference heights of animals. Alex clarified that the height requirements for fodder/water are managed by the Department of Agriculture, this is not captured as part of marine order 43.

Section 43

- Steve noted that under section 43 – Fodder declarations, the term “as delivered to the vessel” seemed to be ambiguous. Alex noted the comment and will review the paragraph to perhaps separate out the oil and moisture content.
- Paolo clarified if the surveyor would be checking the certificate of the fodder. Alex confirmed that the vessel would need to have the fodder certificate on-board for review by the surveyor.
- Paolo also asked would the inspectors be checking for both temperature and humidity, as it does not specifically mention what the inspectors would be checking. Alex confirmed that the check for temperature and humidity would be part of the Master’s procedural control, not part of the inspectors’ procedure.
- Steve asked if the temperature and moisture content checks should be conducted before all the pellets are loaded onto the vessel. Should the wording under section 43 be clarified to indicate that the certificate needs to be available prior to loading (the fodder). Alex confirmed that the wording will be clarified to indicate that prior to fodder being loaded, the master must provide the certificate from the manufacturer to the AMSA inspector.

Section 44

- Steve asked that under section 44 (b) – it mentions that pellets are loaded onto the vessel in dry weather conditions, but if it is raining, does this mean the pellets can’t be loaded. Alex acknowledged the comment and will review the wording of the paragraph.

Section 46

- Roger and Steve queried section 46 – fodder tanks to be emptied, all their vessels have more than 2 tanks of fodder, so does this mean that they can’t load fodder on top of the fodder. Alex explained that this section has changed – the number of tanks which could have fodder from a previous voyage has changed to half the total number of tanks from one tank. Alex did acknowledge that the wording was not clear and would review the wording in section 46.

Section 57

- Lyn noted that under section 57 – protection of pens or stalls from sea spray and seawater, it stated “other than horses”, why was this the case. Alex was not sure why it stated “other than horses” and would investigate.
- Steve indicated that he would like to see in the marine order the specific requirements for pen arrangements for both sheep, cattle, etc. Alex explained that the specific requirements for pen arrangements for each type of livestock should not be contained in the marine order.

Subdivision 11.4

- Lyn commented in subdivision 11.4 camels – how would the marine order address the safety of the crew when loading and working with camels, in particular feral camels. Alex explained that the responsibility of the crew falls under the master of the vessel. Alex noted the dangers imposed by feral camels and it was agreed by LAC members to insert a note under subdivision 11.4 for the crew of camels.

Schedule 2

- Fred asked to note Wellard's comments in the paper provided in relation to schedule 2, part 2 – ventilation.
- Steve asked if schedule 2, part 2.6 – ventilation alarms, applies to all vessels. The wording seemed to indicate that it doesn't apply to all vessels. Alex will confirm that the ventilation alarms will apply to all vessels regardless.
- Roger asked in regards to schedule 2, part 4, 4.3 – what does “beam of a vessel” mean. Alex agreed that “beam” needs to be clarified and will be added to the definitions section within the marine order.
- Alex briefed members on the new part 5.4 under schedule 2 – Emergency water reserve – clarified that will only apply to new vessels or long voyages. Alex asked members to provide their comments/feedback in regards to the proposal of 7 days supply of emergency drinking water for livestock.

Action item: LAC members to provide comments/feedback in regards to the proposal of 7 days supply of emergency drinking water for livestock.

- Jed asked what documentation would be included as part of the external consultation. Would the policy paper be included. The Chair confirmed that the policy paper would be included as part of the package of documentation submitted for external consultation.

After reviewing the marine order and the policy changes, the Chair put forward to the LAC members the proposal of applying 5 year sunseting to the following provisions:

- 21 (2) – carrying livestock in more than one tier.
- 58 (3) (c) – open structure railings for sheep to extend to overhead structure.
- Table 6, Item 8 (in 63) - open structure railings for cattle to extend to overhead structure.
- Schedule 2, Part 2, 2.2 and 2.3 – ventilation in a space that is not enclosed – post 2018 vessels and pre 2018 vessels.
- ventilation alarms (2.6) on the bridge, and

Members agreed to consider impacts that would arise if 5 year sunseting was applied to the provisions mentioned above. The Chair requested industry to provide cost impact/data/comments in regards to the provisions mentioned above by 6 April 2018 to facilitate the making of the marine order.

Action Item: LAC members to provide cost impact/data/comments to AMSA on applying 5 year sunseting to the above provisions by 6 April 2018.

5. Other Business

The Chair opened the floor to members to raise any additional matters.

There was no other business matters raised by members.

6. CLOSE

The Chair closed the meeting at 3:30pm, thanking all members for attending.

Livestock Advisory Committee (LAC) Meeting - 18 May 2016

Minutes

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The meeting commenced at 9.30am

1. Welcome, opening remarks and introductions

The chair, Mr Alex Schultz-Altman, Manager – Ship Inspection and Registration, Ship Safety, Australian Maritime Safety Authority (AMSA), welcomed participants, briefing them on the available facilities and emergency procedures applicable for the building during their visit.

The Chair informed members of the notified apologies, details of which are reflected in the above participant list.

The chair referred members to the proposed meeting agenda and the organisation they were representing.

2. Dave informed that the minutes of the last meeting were circulated and if there are any corrections that hadn't been informed yet, to let Tony know via email. Roger Timms informed that there was a mistake in spelling of the Vessel Frances Bay.

3. The chair opened the meeting. He outlined that he would like LAC meetings held more frequently, however the reason for the delay is that draft Marine Order 43 is still with the drafters. He explained that once he is happy with the draft, it will be circulated. He said he doesn't want an order which is altered dramatically because of drafting style and legal language.

The chair apologised for not responding quickly to queries. He informed that AMSA is going through a restructure, which has put further demand on Dave and Tony's workload, as they deal with cargoes as well as livestock. MO 43 is a priority and should have the order through the drafting process by midway through this year and into circulation by the end of the year.

Dave advised the terms of reference haven't been updated since 2013. The general idea of the LAC is to act as a mechanism to make sure the stakeholders are engaged and they understand the changes in MO43 and it remains modern, safe and easy to understand and regulate.

The chair explained that LAC also performs as part of our external consultation process. It is open to all parties and once there is a draft order we are satisfied with, we can send out to external parties.

4. Dave informed that the layout of the new AMSA website is in a tile format. If you are an owner or operator go to 'shipping'. There is also 'cargoes', 'dangerous goods' and a link to Marine Orders and consultation, which sits under 'community'.

Dave advised that you will find the International engagement link in the IMO documentation website page. Anything regarding shipping from Australia or SOLAS or MARPOL, they all apply through the marine orders. You have access to IMO documentation, so as proposals are submitted to the committee meetings they will become available on the IMO documentation webpage. For the IMO themselves, go to IMO docs on the website where you can register. If overseas you will have to talk to your authorities who attend the IMO as members to provide access for you to view those documents otherwise use the public site.

5. Discussion on twin tiers – Dave advised that in the original proposal we were going to prohibit twin tiers when the order comes in to effect.

Action item: AMSA website - please look at AMSA website and provide feedback using the contact us tab.

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Leah Wells provided the PSC figures for livestock ships with regards to twin tiers. She explains they are aware with mortality figures that half a metre per second of airflow is proven to be a good outcome for the animals and there doesn't seem to be a real case for keeping twin tiers. Therefore in the draft twin tiers are not included, but that is open to public consultation and comment. If anyone has any information or comments, please provide them as part of this consultation ASAP because at the moment twin tiers are not included.

6. The chair advised that RINA has advised that they are already doing drawing approval against MO43. Explained that it was all bought back to Canberra to centralise the process as it was becoming difficult to get consistency.

The chair advised that Class is being approached again to do the approvals and drawings and assessments against MO43 with some conditions and control as they can do assessment more efficiently for the owner, then they are to provide AMSA with the assessed drawings. If they have issues with compliance in the drawing then they send to AMSA and we consult with the owner. Alex advised we are planning on putting it in our Class agreement and they will use our checklist. He advised that the instructions to Class are for our RO's under SOLAS and MO43, and this will be separate. At the moment the ships must be IACS classification society so for the moment it will be technically our RO's, which are 8 societies.

7. PSC figures – The chair advised that AMSA is in a transition as we are taking on domestic vessels which means a restructure for AMSA resulting in new legislation with all our Marine Orders being redrafted in the new drafting style.

The chair informed that in the past livestock ships have had a bad reputation. The results from last couple of years are encouraging. There has been a huge turn around with less mortalities and the detention rate for livestock ships has improved.

8. There have been some questions as to why fodder fires occur. It was explained that it was due to protein levels, therefore higher fat content, in conjunction with moisture content. In the new order, there

are additional requirements for temperature, and oil and moisture content of pellets. Seed cake can be nonhazardous, but there are also three 'versions' of seed cake that are dangerous goods. The differences relate to varying oil and moisture contents and to the type of seed cake. Depending on those variations, seed cake can have a self-heating risk, which, at its highest level, requires competent authority approval to ship it. The chair informed that we have the evidence and the risks are there for fodder pellets, but there is no point applying the packaged dangerous goods code to non-packaged dangerous goods (bulk seed cake). We need to take steps within codes for bulk sea transport in the Order to address the risk. We are now discussing the issues of seed cakes in bulk (fodder is a form of seed cake) at the IMO to try to resolve the issue.

The chair informed that the issue with MO43 for us is finding a balance. A pellet with the appropriate level of nutrient that keeps the animal healthy and adds weight needs a certain oil content. Moisture levels may then increase self-heating risks. So we need to also look at moisture content and, to check that self-heating isn't underway before loading pellets, the temperature at the time of loading. Alex informed that in the 1990s there were a number of fodder fires and the pellets they tested then didn't have canola meal, but they do now, so this needs to be taken into consideration.

Action item: We will check previous reference of background on Class undertaking MO43 compliance checks.

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The chair advised that the IMSBC Code is mandatory for sea transport of bulk cargoes like seed cake, carriage in bulk on a livestock carrier presents the same risks. When testing some fodders, you will find that they don't actually present self-heating risk as a dangerous good, which means in a packaged state they are not dangerous - but they present self-heating risk when they are loaded in bulk or anything above a 20 foot container load. In bulk transport this is referred to as Material Hazardous in Bulk (MHB). In the last edition of the Code there were changes in section 9 which covers MHB risks and it makes it clear - if it's not dangerous good anything more than zero risk is MHB and it's an identifiable risk by the tests. When loading some fodders in Australia it is also important that the fodder doesn't get wet as it will increase moisture content to levels where the fodder will self-heat.

9. The chair advised that MO 43 is important - If you look at the current situation with industry, there are 6 new ships in build and 2 ships at project stage, on top of the 32 vessels that are currently certified, and the number is increasing as the age is dropping. Alex advised there will be at least 8 coming in to the market and it's important that MO 43 remains contemporary and relevant to the animals being carried. He said for this reason we are formalising camel transport as well.

The chair informed that the draft order for MO43 should be out by midyear, we will hold another LAC meeting after the draft and before the public consultation phase. He asked that members look at issues like fire protection and drainage and give comments so it can be discussed at the next LAC meeting.

10. Roger Timms asked how does the Marine Order fit into the International and domestic split. He said the Bass Strait trade is a domestic trade, and would it be easier to have two separate marine orders, one for international ships with the overseas trade and one for the domestic ships in Australia.

The chair advised that this is certainly an option and this has been discussed during development of the Navigation Act 2012. He said that if it were to break into two Orders, it would be complicated for MO 43. MO 43 did cover the Bass Strait trade (Tasmania to Victoria, or other State) prior to July 2013, because the old Act application was to the interstate trade. The new Act application is not voyage based, but applies to Regulated Australian Vessels (RAV) and foreign-flagged vessels on any voyage. He said (for Australian flagged vessels now) - if you are a RAV in the Bass Strait trade, you are subject to MO43. If you are a DCV, you are not.

The chair informed the issue with National Law is that it covers a DCV but it excludes cargo so a policy decision needs to be made which isn't a simple process. This is the same for gas, bulk cargo handling, cargo securing, cargo loading, bulk liquids and dangerous goods, which generally all apply to all ships. We need to ensure that the legislation is clearly separated. Keeping portable equipment and portable livestock units (PLUs) clearly separated from the permanent equipment was also important in MO43 because it can cause confusion as to the extent of application of the order.

Roger Timms asked what might happen in real life and what might happen in the MO in relation to the existing arrangement of automatic water bowls, fouling protection bars and animal injury. He said there are images of animals breaking their legs when they are trapped between the mandatory protection bars and bowls. There are also images purporting to show the protection bars do not eliminate fouling of the troughs, Roger asked if the issue of a mandatory protection bar going is going to be brought into consideration and will that actually stop the trough from being damaged from compression by the animal when they move against it. He said to do this, there will have to be a management system and man space to keep the bowls clean so there will have to be someone on patrol as the water bowls become fouled.

Dave informed that some ships have had no issues and at the moment it is being dealt with on a case by case bases. Protection bars were being permitted to be moved closer (with management of fouling) but not removed. He said that at the last LAC meeting he asked for evidence, and that evidence is starting to come through now. He advised that previously we weren't being provided the evidence and we couldn't act without it, so now we can start making decisions and putting it in the order. Dave

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informed that when the order does come out, all existing arrangements will be removed because it is a risk, and at the moment it is being done when it is needed because it is a welfare issue.

Dave advised that the order will continue to have protection of fouling. Another provision that states

where there is a risk to animal welfare, there will need to be an alternative arrangement such as patrols and a management system. That way if there is a situation where an animal is at risk you can move (or remove) the bars to protect the nose bowl but there will need to be consistent patrols and processes. Action item: send email out - information on water bowls. Alex to circulate the same email as he sent to Roger.

11. Roger asked what is happening re staffing and the re-structure at AMSA. Dave informed that from July 1 2018 there will be a single national jurisdiction for commercial vessels. The States are still operating for AMSA currently, but that will change from July 1, therefore a re-structure is needed. Roger asked how does stockman and crew fit under MLC 2006. The chair advised that Flag state is responsible for this and to solve the problem we are making sure they are issued a Certificate of Sea Safety Training or something equivalent and you are able to sign them on as crew for the purpose of MLC. He advised SOLAS has different definitions for what a seafarer is and what a passenger is. The stockman are part of the crew of the ship which is a Flag State issue.

12. Bruce (Jackson) asked if the Marine Order going to specify that there should be a trained and competent stockpersons on board. The chair advised that animal welfare is no longer in the order, as it belongs to Agriculture/AQIS. Qualifications and competency for the on-board animal husbandry are a different issue. This may need to be dealt with in the MLC.

The chair advised that different Flags have different views, and DMLC certificates Parts I and II can allow for subjective judgements by Flags. He said that if you are concerned you need to make sure DMLC certificates Part I and II contain sufficient information so it is clear to the PSC officer.

13. The chair said there is discussion around the capsizes of the livestock carriers Danny F II and Haider. The chair said that the IMO may wish to consider the adoption of a code that relates to livestock carriers as they are effected in different ways to other ships. He said there are no code requirements for things such the movement of animals and the movement of fodder and fresh water. He informed that AMSA are now working to develop a livestock carrier code that AMSA will present to IMO and doing it in conjunction with MO43. He said we are currently writing up the project and plan and considering a number of options including welfare requirements as the way MO43 is written at present only deals with structure. He advised that we are hoping we can gain support from relevant Flag states and it means there would be one code developed through IMO that sets a bench mark for livestock carriers, prevents casualties in the poorer quality vessels and raises the bar on standards through the industry. He advised that we are planning to get the draft to the MSC so we can submit it to IMO by the end of the year. Roger advised that Liveship is happy to assist. He suggests that the IMO should get the World Organisation for Animal Health (OIE) involved as well.

14. Wayne Collier informed that it does make the review of the MO all the more important and setting an international standard. He asked if animal welfare will be included as an International standard. The chair advised that it would be mainly a hardware code. He advised there has to be some guidance regarding qualifications, mortality rates and animal welfare. He advised that once drafted, we will circulate to other parts of the industry and we will be relying on people like Liveship and the ship owners particularly, because the focus is on the ships design and construction. He said that we need to get the commercial players on board for international animal welfare support.

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Action item – Regarding the capsizes of Danny F II in the Red Sea and the capsizes of Haidar in port in Brazil and the loss of livestock. Find out if those ships had complied with MO43

Morning tea

15. Discussion paper - Dave informed that the discussion paper is now up to version 4, and is similar to the November 2013 version. The policy document includes most of what is in the table and has been circulated internally for review but is not complete. At the moment draft order is being developed. The two documents together, and everything in the table, will go in a policy document.

1B - Power – Dave advised there are some thoughts that the power section may disappear altogether due to the new legal drafting style. The content in the Navigation Act provides the powers, so it isn't essential that the regulations include the powers.

2 - Definitions – Tony advised that it is important to look at the Act now because our legal drafters have said that they are not going to reproduce anything in the MO that is in the Act such as the definitions. This is the new modern drafting style.

3 - Interpretation – This is something that legal drafters will check.

Roger asked if there is going to be further review of ASEL and which documents may or may not be referred to in the MO.

Leah advised that the review was stalled in 2014

5A - Equivalents – Dave advised that at the moment it is still the same and legal are still working on drafting things like exemptions and equivalences in the order.

7.2 - NOI's – Dave informed they are being reviewed at the same time as the database that we currently run (SHIPSYS). There have been delays in replacing the database but the forms will be in the new system and they still could appear on the internet. We are trying to include the status of the ship and the status of the ACCL in the database too..

7.3 - Prohibition on loading – Dave advised that this policy hasn't changed and we are to still conduct a PSC (if eligible/required) before permission to load livestock is given. He said we still work closely with Department of Agriculture as they have legislation on when the ship can be loaded. Generally prohibition won't change, as a PSC has to be done before the pre load. If ship is detained because of safety radio for example, you are not prohibited from loading (by AMSA – Agriculture legislation may

prohibit animals being moved to the ship in this scenario though) but if loaded you cannot depart because the vessel is detained.

7.4 - Inspections during and after loading - No objections

7.5 - Taking a ship to sea - No objections

8 - Restriction on carriage of livestock – Dave informed that as mentioned earlier in the development of the draft order, it will prohibit two tiered ships from the date the order comes into effect, but will only apply to new ships and will not apply to ships that are already operating.

Action item: Dave asked for comments to be provided now or sent via email to Alex.

Dave advised that the Department of Agriculture reviewed twin tiered livestock ships and from their point of view it is hard to achieve and maintain the 0.5m/s of airflow according to their evidence.

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Gary Robinson - Asked if there was going to be a review of the new order to make old twin tier ships comply or a possible grandfathering rule?

Dave advised that would be another policy decision and at present only new ships are to comply as it is impossible to do before the order comes in. He said that if there was evidence on existing ships that every voyage with twin tiers had an issue then it would have been adopted already. He said there might be a possibility that in the next 5 years we can apply a sunseting law on existing ships.

Action Item: Dave asked for comments or opinions from the industry in regards to twin tier ships and sunseting/grandfathering possibilities.

10 - ACCL – Dave advised ACCL's are only for permanently fitted livestock ships. Some DCV's have portable arrangements for livestock which has always been approved by AMSA but it is not in the order.

10.3.2 - Dave advised that we are developing a draft for the Interim ACCL as it has been reworded.

The attending surveyor is to issue the interim ACCL as they have inspected the vessel for compliance with MO43.

10.5.1 A – Prohibition on issue, reissue or endorsement of certificate - no objections

14 - Loading of bulk fodder - Dave advised that it is clear and evident from incidents that loading fodder has become an issue.

Wayne - asked if AMSA inspectors check the bonding/earthing arrangements when loading fodder. Dave advised that AMSA inspectors don't attend for the loading of fodder and it is the supplier's job to check rather than AMSA. Dave said the Master and crew should be encouraged to check bonding.

For the 90 days between emptying and cleaning Dave advised that ASEL for now it is staying as 90 days with 60 days in brackets. It is considered to be lowered for safety purposes

Dave asked for comments on day tanks from industry as to whether you think that the definition needs to be more defined on difference between day tank and a fodder tank.

20 - Design of pens and passageways (sheep) – Dave advised that open deck sheep pens rail spacing height is still being drafted and it won't affect any existing ships.

23 - Design of pens and passageways (cattle) - Dave advised that the railing spacing starting from the bottom is a 300mm gap between each rail all the way to the deck head and you don't need to put a rail above 1.4.

Dave asked for comments from owners in regards to the 1.4 and what their preference is as we are looking at adjusting the wording to make clearer.

29 - Horses – no objections

30 - Goats - Dave advised that AMSA is happy with arrangements made by owners when carrying goats but need early consideration if sheep pens need to be modified to carry goats.

33 - Provision of hospital pens and stalls – Dave informed that it has become evident that when watertight compartments are closed at sea some hospital pens are not accessible. He advised that there will be no changes to watertight doors and they must be shut at sea unless in an emergency.

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35 - Carriage of livestock on short voyages – No objections although it was agreed a note may make it clearer regarding short voyages and portable equipment requirements.

37 - Livestock Mortality – Dave advised that the preliminary inquiry if there are mortalities is actually a complete report. He said the legal drafters have asked what we do after a preliminary inquiry; the surveyor gathers all evidence then writes the complete report. This will be clarified further.

Dave informed that Livestock Mortality is defined in ASEL and created for animal welfare figures and triggers. AMSA is looking at different triggers so may include criteria in the order to allow changes. For example AMSA will look into mortality rates over 1.8% but the reportable mortality rate is 2.0%. He reminded all that the master must confirm final figures and that mortalities are calculated from first animal on, to last animal off

Lunch

Dave introduced Guy Anderson and outlined his involvement in the Marine orders

Schedule 1 – Forms - Dave advised that the forms in the order might be removed entirely depending on what they are and placed on the website. In any case forms on the website are being updated and amended.

Lighting and ventilation report – Dave advised that the order will include a provision that the lighting and ventilation report validity would be 5 years to align with the maximum validity of the SAFCON and ACCL. Sewage discharge calculations were raised at this point and Dave advised the vessel will need to have flag approved calculations and arrangements for MARPOL. He said you have to comply with MARPOL and this is just evidence to say that you comply with MARPOL for livestock sewage.

Dave informed that he is still working on the Masters Report and will circulate when it is finalised. He

said that he is still keen to put the Masters Report back to how it was under issue one and issue two, minus animal welfare reporting/information (the first issues of the order included animal welfare).

Drainage arrangements – Dave advised that there have been issues with sizes of drainage pipes over the years where drainage pipes are getting blocked, so it has been suggested to add a minimum of 200 mm (nominal bore - NB) for a down pipe gravity. He said that bilges should be in each livestock space and we are taking into consideration how many bilges should be fitted depending on the length of the compartment.

Roger asked a question about what is a livestock space. Dave will suggest the order uses livestock space (instead of cargo hold) over 20 metres – Dave thinks that is a good point and makes it much clearer. Changed to every 20 metres in each livestock space (if ship is over 20 metres).

Dave advised that the notified policy change 2 years ago was 200 mm NB. It was then changed to 300 mm, however Dave thinks the evidence in operation means 200 mm is sufficient. Dave advised that down pipes need to be every 20 metres and the actual well arrangements are not critical, but this needs to be clarified. Dave said most people are building ships that carry both sheep and cattle, but if there is for example a ship that carries only sheep, should there be different arrangements? Dave welcomes any comments and asks for their opinion on whether 200 mm would be sufficient. Dave suggested that an equivalence or similar (to bilge wells) might be needed for longitudinal channels.

Roger states if you have sewage coming from the deck above, you can't have a deck with a pipe going through.

Dave informed this is something we are looking at already in the order. He said you run into problems with people washing the deck above and the sewage pours through grating etc. Dave suggests you
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need a better washing down procedure such as making sure that manufacturers fit covers or boards to prevent this from happening.

Other Business

Minimum fire protections standards - Dave advised that fire protection standards are still in the order and SOLAS 91/92 amendments are still being considered. He advised that because of recent incidents on ships with fires, accommodation fire safety is important for livestock ships. The outcome has been good with incidents that have occurred on modern livestock ships due to the crew being on-board to manage the livestock.

There was discussion on grandfathering – the period where existing vessels did not have to comply with the new SOLAS standards.. Dave said we don't have the evidence to not have grandfathering for existing vessels, the evidence is there that not having it helps bring all vessels to the same standard, but we are bound by Australian government legislation which protects everybody from unreasonable and unnecessary burdens. Not having existing vessels grandfathered is a burden that we probably could not justify.

There was discussion on the length of grandfathering, 20 years – 10-15 years - and whether it should or shouldn't be extended to all ship types converted, such as passenger ships, ro ros and new or existing livestock ships. Dave advised there will be implications on existing livestock ships and we need to take into consideration what the implications might be.

It was suggested that grandfathering is not necessary (existing vessel never need to comply) but if issues arise the Manger Ship Inspection will issue a direction.

Ventilation – There was discussion on whether or not visual and audible alarms should be fitted on the bridge. This was a drafting error and the requirement was inadvertently removed. All ships comply anyway so there should be no impact on existing ships so grandfathering is not required.

Jim asked who is required to do the test on bulk fodder, is it the manufacturer? Dave advised AMSA wouldn't want to dictate that and asked for comment from industry and owners

Camels – the requirements have been taken from the CSIRO feral camels document – Dave asked all to provide comment. There was some discussion as to where the height limit above the hump came from. It is likely an animal welfare issue and in the ASEL.

Dave thanked everyone for their attendance and participation, the meeting closed at 3.40pm

Livestock Advisory Committee (LAC) Meeting - 5 November 2013
(Draft) Minutes

PARTICIPANT LIST

	NAME	ORGANISATION
	Mr David Anderson (Chair)	AMSA
	Mr Tony Smith	AMSA
	Ms Bonnie Daniel	AMSA
	Mr Bjorn Clausen	Coral Line Pty Ltd
	Mr Roger Timms	Liveship
	Mr Mike Gordon	RETWA & KLTT
	Mr Alan Schmidt	AH&R Schmidt Pty Ltd
	Mr Ayed Shawkat	Livestock Shipping Services Pty Ltd
	Mr Manuel Ong Sotto	Vroon Ship Management Pte Ltd
	Mr John Edwards	Far Seas Shipping
	Mr Tim Naylor	DAFF - Live Animal Export Operations
	Ms Lucy King	DAFF - Animal Welfare Branch
	Mr Nick Thorn	Ocean Eight Shipping
	Mr Wayne Collier	LiveCorp
	Capt. Saverio Leboffe	International Ship Management ISHIMA
	Mr Seiya Koyama	Glocal Japan Inc.
APOLOGIES		
	Dr Bidda Jones	RSPCA - participated via teleconference
	Mr Alex Schultz-Altman	AMSA
	Captn. Richard Thomas	Far Seas Shipping
	Mr Ron Cullen	Sheep Meat Council
	Mr Phillippe Lecloux	Wellard Ships Pte Ltd
	Mr Jim Paradice	DAFF - Animal Welfare Branch
	Mr Bob O'Haloran	Sea Swift & Karumba Livestock Loading

The meeting commenced at **9.50am**

1. Welcome, opening remarks and introductions

The chair, Mr David Anderson, Head of Section - Cargoes and Technical, Ship Safety Division, Australian Maritime Safety Authority (AMSA), welcomed participants, briefing them on the available facilities and emergency procedures applicable for the building during their visit.

The chair referred members to the proposed meeting agenda and requested participants to introduce themselves and the organisation they were representing. The Chair informed members of the notified apologies, details of which are reflected in the above participant list.

Mr Roger Timms advised that he wished to introduce three additional items for discussion as other business:

- Fouling of automatic water bowls located in pens
- Surveys for issue of an ACCL
- Non-permanent pen arrangements on ships

The chair referred members to the circulated minutes of the previous meeting, with Roger informing members that he did submit comments, but they had not been incorporated into the minutes. Tony apologised advising that he will refer to Rogers submitted comments, adjust the meeting minutes accordingly and recirculate the revised minutes for agreement.

Action item - Contingent on the above changes being made, members accepted the draft meeting minutes of 28 May 2013.

2. LAC Terms of Reference and procedures

The chair read out the LAC Terms of Reference (ToR's) circulated for the previous meeting. He then requested members to review the ToR's and send any suggested amendments to AMSA for Tony to collate, then recirculate to members for comment and discussion at the next meeting. As an aside, the chair asked members if they had any preferences for alternative meeting locations, with members confirming the venue was both accessible and suitable, agreeing that future meetings should be convened at the AMSA Sydney office.

Action item - Members were requested to review the ToR's and send any suggested amendments to AMSA for Tony to collate, then recirculate to members for comment and discussion at the next meeting.

3. Update on the application of Marine Orders under the Navigation Act 2012

The chair reminded members of the application from 1 July 2013, of the *Navigation Act 2012*. Subsection 343(2) of the Act provides that specified Marine Orders that were in effect under the *Navigation Act 1912*, immediately before its repeal have effect. The modifications are reproduced in a new *Marine Order 4 (Transitional modifications) 2013*; which further provides for a compilation of MO 43 to have effect.

Members were asked to note that the compilation versions are not recognised under the *Legislative Instruments Act 2003*, so are not registered on the Federal Register of Legislative Instruments. For strict legal application, reference should be made to the *Navigation Act 2012*, the old Marine Orders Part 41 (*Carriage of Dangerous Goods*) Issue 10 and the new *Marine Order 4 (Transitional modifications) 2013*, freely available on the COMLAW website at: <http://www.comlaw.gov.au/Details/C2012A00128>

However, to assist in interpreting the transitional arrangements and for ease of day-to-day reference, AMSA has produced compilations of all Marine Orders, which are freely available

from the AMSA website at: <http://www.amsa.gov.au/vessels/standards-regulations/marine-orders/>

The chair informed members of the two separate legislative instruments applying to ships in Australian waters, the *Navigation Act 2012* and the *National Domestic Commercial Vessel (NDCV) Law 2012*, advising that for the livestock sector not much has changed. The Port State Control (PSC) and Flag State Control (FSC) compliance and enforcement regime has been modernised, with AMSA inspectors able to issue improvement, prohibition and detention notices under the Act.

Roger asked whether livestock could be loaded if a notice has been issued and what mechanisms are available for appeal. The chair advised that if an improvement or prohibition notice applied, it prohibits the ship from operation, so cargo, including livestock or fodder loading operations, could not take place. However, notices include provision for inspectors to include conditions or limits. So, depending on the areas or activities the notices are issued for, certain activities may be able to continue but not in the areas specified in that notice.

The chair confirmed that the appeal process was through the Administrative Appeals Tribunal (AAT) system, the same as under the old Act.

The redesigned AMSA website was displayed on the projector screen for members to view, with the chair informing members that the website was due to be modified again in the next couple of days as a result of feedback received by AMSA. The chair navigated members through a number of pages and links, requesting members take the time to view the AMSA website and provide any comments back to AMSA.

Action items - The chair requested members to review the AMSA website; <http://www.amsa.gov.au/> and to provide feedback to AMSA using the 'contact us' tab at the top of the AMSA homepage, in relation to any difficulties they experience, or changes they think could make the site more 'user friendly'. The chair also encouraged members to look under the **Community** link at the:

- **Consultation** page link, to familiarise themselves with the AMSA consultation process and view the Standards and Marine Orders currently under review; and
- the **International engagement** link **IMO Documentation website** page, as eligible organisations are able to obtain a password following the link, to enable viewing of relevant IMO meeting procedures and reports.

4. Discussion on ventilation and research papers from Ernesto Valtorta

The Ernesto airflow diagrams circulated to members for this meeting were displayed on the projector screen, with member evaluation resulting in general discussion and questions relating to the required level of airflow in pens and the height that airflows should be measured at.

The chair verified that the specified volume of air changes and the 0.5m/second air flow across the pens are requirements of the order, regardless of single tier or double tier configuration of livestock ships. The chair related that generally, ventilation readings were taken in five places within a pen at a height of around 1 to 1.2 metres above the pen floor; and that in viewing the Ernesto diagrams it can be seen that the ventilation envelopes change once animals are in the pens and that flow and air distribution both change, depending on single or double tier configurations.

Tim Naylor indicated that double tier ships were not really an issue as such for DAFF, with some single tier ships having worse mortality rates and the departments view is so long as the vessel has an ACCL, it complies with the ASEL. Bidha Jones maintained that there is significant evidence over a number of years of concerns with two tier configured vessels,

requesting that if DAFF have such evidence to the contrary with regard to two tier vessels could they please share these with LAC members.

The chair confirmed that it is AMSA's intention to phase out two tier configured ships, on the basis that current ships arranged as such have difficulties in achieving the required volume of air changes and air flow across pens and since the application of Issue 5 of MO 43, no two tiered ships are being built. The chair acknowledged that decisions are yet to be made, but to be fair, phasing out two tier configured ships may be difficult to justify and that DAFF and RSPCA should provide any data on this for consideration. DAFF representatives Tim Naylor and Lucy King, reported they are not sure whether any information specifically relating to two tiered ships has been recorded, but they could go back to the department to see if such information is available.

Bidda Jones responded that this discussion has been going on for years and it seems the only people that are arguing are the exporters that are still using them. Bidda advocating the practical reasons for removing double tiers are the lack of being able to easily sight the condition of sheep, difficult access to animals for crew and vets, as well as air flow considerations. Bidda suggested that there are other welfare reasons why two tier ships are less preferable and that they possibly should be phased out, as there are no positives about them.

Mike Gordon conveyed that there are positives and commercial advantages to transporting stock in two tiered ships, particularly that you can carry more stock in a single load, therefore less voyages are required to transport the same number of animals, and that it was up to the ship owner as to whether two tiered ships are viable or not.

Roger Timms put forward that the matter would ultimately come down to OHS issues and as the modern world progresses it will be an access issue and whether these configurations impact on animal health, with animal welfare concerns being considerations for animal welfare people in government.

The chair reiterated that it is AMSA's intention to phase out two tier configured ships with decisions to be made as to sun-setting provisions and AMSA needs to consider all evidence.

- Action items - The chair requested that the following information be submitted to AMSA for consideration at the next LAC meeting:
- DAFF representatives - to review DAFF records and report back on single and double tiered mortality figures if available;
 - Livestock Industry representatives - to provide a summary of supporting evidence;
 - RSPCA representative - to provide a summary of any supporting evidence;
 - AMSA - to provide any additional ventilation information supplied to AMSA.

5, 6 & 7. Review Table of proposed changes for update of MO43

A copy of the circulated Discussion Table, updated to include member comments in the 4th column is included as **Appendix 1**.

Action item – Members should review the Discussion Table and provide any additional comments back to AMSA for updating and review at the next LAC meeting.

8. Other Business

Roger Timms was invited to speak on the three additional items he raised for other business:

Fouling of automatic water bowls located in pens

Roger indicated that he considered this matter had been discussed sufficiently at Item 5.

Surveys for issue of an ACCL

Roger asked if AMSA had considered delegating its survey work under MO 43 to IACS accredited classification societies (Class); and whether Class might be able to issue ACCL's? Class societies have indicated they would be willing to again carry out MO 43 compliance work, but have suggested that they would expect clear instructions to be made available.

The Chair advised that there are no Australian ships built, or ACCL's issued, without AMSA's involvement and AMSA is diligent in its duties of compliance with marine orders and flag and port state inspection regimes.

The Chair further advised that from memory, years ago class societies were allowed to undertake some work for AMSA MO 43 compliance. However there were varying results, with the practical tangible results very inconsistent, so that is why Class no longer do the work for MO 43. He suggested that use of Class or another consultant could be re-considered, but this would require AMSA to develop the equivalent of an RO system and even so, based on past experience, the results would still be expected to be variable. The ultimate step would still require AMSA to carry out an audit and undertake the final inspection in order for an ACCCL to be issued.

Action item - The Chair indicated that AMSA will check previous records for background on Class previously undertaking MO32 compliance checks, discuss this with the Manager Ship Inspection and Registration, Alex Schultz-Altman, and report back at the next LAC meeting.

Non-permanent pen arrangements on ships

Roger reported that back in the mid 1980's the Lady Geraldine (and Lady Francis?) carried livestock to Indonesia in portable pen structures fitted on the deck/s, complying with MO 43 at the time. He suggested that perhaps such arrangements could be re-considered for the new MO 43, as there were no ships in service like this when the first ACCL came out. The chair responded that having non-permanent pens could be a valid point for consideration, but there may be issues if they wanted to go on a long voyage. The chair advised that currently an ACCL is only issued for ships permanently fitted for the carriage of livestock. Tim Naylor reported that the ASEL is applied for ships permanently equipped for the carriage of livestock and that under the ASEL a vessel could not be used for transporting livestock if it did not hold a current ACCL.

9. Next meeting – A day in March 2014 was suggested and AMSA will check with members prior to confirming the date.

The chair thanked members for their attendance and participation, advising that Bonnie and Tony should be able to put together the draft minutes for circulation by the end of the year.

The meeting closed at 4.30pm

APPENDIX 1.

[Discussion Table – MO 43 Update Document \(v4\).docx](#)

DRAFT MINUTES

Livestock Advisory Committee (LAC) Meeting 28th May 2013

ATTENDEES (21)	
Mr Mike Gordon	Rural Export & Trading - RETWA
Mr John Edwards	Farseas Shipping
Mr Wayne Collier	Livecorp (part meeting)
Mr Sam Brown	LiveCorp (part meeting)
Mr Philippe Lecloux	Wellard
Mr Cameron Morse	Wellard
Mr Bob O'Halloran	Karumba Livestock Loading Pty Ltd
Mr Nick Thorn	NTLS - Ocean Eight Pty Ltd
Mr Manuel Ong Sotto	Vroon BV
Mr Ayed Shawkat	HIJAZI and GHOSHESH Company
Mr Roger Timms	Live Ship
Ms Daniela Murasen	Corral Line
Mr Jens Christian Clausen	Corral Line
Dr Bidda Jones	RSPCA
Mr Alex Schultz-Altman	AMSA
Mr James Walner	DAFF
Mr Jim Paradice	DAFF
Ms Lynn Simpson	DAFF
Mr Dave Anderson	AMSA
Ms Bonnie Daniel	AMSA
Mr Tony Smith (Chair)	AMSA
APOLOGIES	
Ms Alison Penfold	Australian Livestock Advisory Committee
Mr J K Iyer	Mr J K Iyer - KLTT
Mr Jed Matz	Mr Jed Matz - Cattle Council of Australia
Mr Alan Schmidt	Mr Alan Schmidt - AH&R Schmidt Pty Ltd
Capt. Richard Thomas	Capt. Richard Thomas - Far Seas Shipping

Meeting commenced at 9.50am

1. Welcome and opening remarks

The chair, Tony Smith, Principal Advisor, Cargoes and Technical, Ship Inspection and Registration, Australian Maritime Safety Authority (AMSA), welcomed participants and introduced Mr David Penny, Manager, AMSA East & North Offices, who briefed attendees on the location of facilities and emergency procedures in place for the building during their visit.

Participants were requested to introduce themselves and the organisation they were representing and the Chair advised of the notified apologies, details of which are reflected in the above participant list.

The chair also advised that some attendees would be arriving late due to the weather conditions in Sydney with planes subsequently not operating to schedule.

2. LAC Terms of Reference

The Chair drew member's attention to the previous LAC Terms of Reference (ToR), advising that he would be limiting meeting discussions to matters directly related to updating and amending the

current Issue 6 of Marine Orders Part 43 and not animal welfare issues, as these were considered more appropriate for discussion at meetings convened by the Department of Agriculture Fisheries and Forestry (DAFF) responsible for animal welfare – for example through the DAFF review and consultation processes for amending the Australian Standards for the Export of Livestock (ASEL). Alex Schultz-Altmann, Manager Ship Inspection and Registration, AMSA, explained to members that, although there may be livestock welfare concerns arising during the carriage of live animals on ships, Marine Orders Part 43 (MO 43) has since Issue 3 been focussed on the provision and maintenance of structural and physical livestock service equipment and related procedures for livestock vessels.

During initial discussions regarding the eligibility for membership of the LAC that was envisaged within the updated ToR, several options were put forward. Options discussed included that members would only be those directly affected by the Order (those that must comply – for example Ship Owners); that members would be those directly and indirectly affected by the Order (for example Ship Owners, Charterers and Exporters; or that members would be all those affected by or with an interest in matters in the Order (for example all previously mentioned groups plus all interested Government and animal Welfare Advocates). Alex Schultz-Altmann explained that current government policy requires inclusive consultation and that inclusion of as wide a membership as considered reasonable of the LAC would result in the most robust and widely agreed legislation. It was recognised the attendance at meetings would be necessarily limited by locations and facilities available, however some membership groups could utilise a single representative to put forward the group's views and inputs. Historically animal welfare advocate groups, for example, have utilised the RSPCA as their respected single focal point at these meetings and have thereby been able to contribute their valuable input without the numbers attending meetings becoming unmanageable.

Industry members expressed concerns about discussion of what could be considered to be 'commercial in confidence' information, with Alex advising that in the interests of transparency all matters should be discussed at LAC meetings, but if any members wished to discuss some matters by way of a separate meeting, AMSA could facilitate that and would maintain and protect the in-confidence nature of such discussion as appropriate.

ACTION ITEM: Alex advised that the Chair would arrange for the ToR's to be re-drafted to better reflect current procedures and these would be later circulated for member comment and agreement at the next LAC meeting.

3. Advice on changes to the Navigation Act and associated legislation

Dave Anderson, Head of Section, Cargoes and Technical, AMSA, explained that the Navigation Act 1912 had been redrafted to update some provisions no longer applicable after 100 years of operation, and to reflect contemporary legislative drafting style and language.

The new Navigation Act 2012 was passed by Parliament in March 2012, and will be applied by proclamation from 1 July 2013. Dave advised that there are some new definitions, particularly relating to vessel owners operators; and for the purposes of AMSA Port State Control administration, the new Act would apply to foreign flag ships on any voyage (not only inter-state and international) whilst also applying for the purposes of Flag State Control to Regulated Australian Vessels (RAV). Australian Flagged vessels on inter-state and intra-state "domestic" voyages will be Domestic Commercial Vessels (DCV) covered by an additional piece of legislation under the jurisdiction of AMSA's Domestic Vessel Division.

Dave encouraged members to view the new Navigation Act and related Laws using the link from the AMSA website to the COMLAW website, advising that the associated Explanatory Memorandum,

also available on the COMLAW website, provides valuable information for assisting with a better understanding of the new laws.

Alex further advised that:

- the new Australia International Shipping Register (AISR) has been in operation since 01st July 2012;
- all Marine Orders had already been amended purely to insert correct references to the new laws and to reflect Australia's adoption of the International Labour Organisation (ILO) Maritime Labour Convention (MLC) which will commence from 20th August 2013;
- while some orders have now also been amalgamated, over the next two years there will need to be a review and rewrite of all Marine Orders, but overarching policies will not change, hence commencement of this MO 43 review;
- under the new Act, AMSA surveyors are to be appointed as inspectors;
- access to ships for inspections in general has not changed and inspectors will not be able to be denied access to inspect a ship, but new search and seize powers will apply, consistent with other Australian laws;
- enforcement provisions under the new Act will include civil penalties, as well as an ability to issue improvement and prohibition notices;
- when a vessel is detained under the new Act it will be prohibited from "operating" at the Act level. "Operating" includes moving the vessel, the vessel being towed, loading, discharging etc,
- however, the detention order may include conditions under which certain operations may be permitted - hence loading (of livestock or any other cargo) may be permitted despite the vessel being detained. Whether or not loading will be permitted or restricted by location on board or similar will continue to be assessed on a case-by-case basis and it will be specified on the detention order. As is the case now though, there is no intention to consider a lifting of a prohibition of loading on a detention order to indicate the detainable deficiencies will not affect the loading and/or sailing schedule for the vessel. Unless the prohibition on loading is directly related to non-compliance under MO43 (when the deficiency/loading relationship is 100% clear) any decision to move and/or load livestock whilst detained will continue to be at Owner's risk.
- members were advised they will need to consult with their respective ship owners, operators, and lawyers as appropriate since the MLC will require new provisions to be included in MO 43 relating to how stockman are to be regarded. It will need to be clarified whether they are part of the crew, special personnel, or passengers, because as crew they must have a work agreement and must otherwise be covered under the MLC.

ACTION ITEM: Members are encouraged to view the AMSA Fact Sheets relating to the new Navigation Act 2012 available from the AMSA website at:
http://www.amsa.gov.au/Publications/Fact_sheets/Nav_Act_2012_factsheets.asp
As well as the 2012 Act and explanatory memorandum, available from the COMLAW website at:
<http://www.comlaw.gov.au/Details/C2012A00128>
<http://www.comlaw.gov.au/Details/C2012B00095>

4. Information about the required regulatory processes involved in making changes to MO 43

Alex reiterated that current government policy requires inclusive consultation for development of all significantly revised and new legislation, including Marine Orders. He advised there is also now a requirement to prepare a Regulatory Impact Statement (RIS) to reflect any foreseeable impacts to government, industry, or other stakeholders, including any significant financial implications, with the

RIS process requiring the new legislation and RIS document to be subjected to a prescribed public consultation process.

In response to a question, the Chair explained that a RIS is a whole of government requirement, administered by the Federal Department of Finance and Deregulation, which also contained a CRIS (Cost RIS), generally included as a cost benefit analysis, to validate the need for changes to existing laws, or for introduction of new laws, with further information available from the Department of Finance and Deregulation website.

ACTION ITEM: Members should note that as Drafts of the new MO 43 are compiled by AMSA, they will be circulated to LAC members for consultation with their broader livestock associates, with a final document to be drafted for public comment release.

5. Overview of the changes to SOLAS and MARPOL, which will impact on Marine Order 43 (MO43)

Dave Anderson provided an overview of the MARPOL provisions that now apply for disposal of garbage and other waste, including livestock carcasses, referring members to view the AMSA *Marine Notice 19/2012*, available on the AMSA website. Dave advised that the matter of provision of comminuters/grinders is included in the AMSA list of proposed changes for updating MO 43 to be discussed as part of the next agenda item. Dave also suggested that relevant SOLAS amendments were identified in the same document and these would also be discussed as part of the next agenda item.

ACTION ITEM: AMSA **Marine Notice 19/2012** can be viewed at:
<https://apps.amsa.gov.au/MOReview/Attachment/ShowMNPDFAttachment?marineNoticeId=127>

6. Review list of proposed changes for update of MO 43

These minutes should be viewed in conjunction with the AMSA agenda paper circulated for discussion at this meeting. Dave explained that the meeting paper was provided to highlight some changes identified by AMSA for discussion, representing matters AMSA believes need consideration. The document contents should not be regarded as “what AMSA is going to do”.

Format of Master’s Report - There are issues with the absence of essential information that was required under the previous issue of the order, for example; date and time of each loading and date and time of each discharge to determine the voyage length, as well as spaces to record daily mortality and environmental conditions. It is suggested that the information previously required in the report in Issue 5 (as a basis to develop) is reinstated and additionally that provision is made for the inclusion of the expiry date of the vessel’s ACCL as a reminder of endorsement provisions. Members suggested that with modern technology operators could be advised via automated e-mail, however, Dave counselled that this is an owner/master responsibility under the order. It was also suggested that with modern technology it may be possible to allow an operator access to view their own records, with Alex advising that this could be a consideration once the new ship register was established.

ACTION ITEM: AMSA will circulate a copy of the old Master’s Report format for member comment and later agreement for this to be re-included in the order.

Shorter-term issues

Mortality reporting – It was advised that the mortality reporting requirements for inclusion in the updated order should be clarified so the number used for loading and discharge and the number of recorded mortalities on board are agreed and consistent. It was noted that if it was agreed to revert to the old system of recording daily mortality in the Master's report this will provide some clarity on the number of mortalities during the voyage.

Fodder tank inspections – Dave advised that AMSA is proposing to clarify the current fodder tank inspection requirements, again to assist with compliance, as currently provision 14 of the order requires compacted residues to be broken-up so it's not compacted for the fire risk, and for tanks to be completely emptied every 90 days.

Some general discussion arose about whether the age of the fodder was actually a concern, as the old fodder tends to get used first anyway because it falls to the bottom. However, Alex advised there is still a need to routinely undertake cleaning out of fodder tanks, as there is significant evidence of the risk of fire, but stated that if anyone can provide up to date evidence that this isn't a risk then AMSA would be open to consider this.

Interim ACCL – Dave clarified that the order currently provides for the Manager Ship Inspection to issue an interim ACCL, whereas in reality it is the attending surveyor who verifies compliance and reports this back to the Manager, so it is proposed to amend the order to allow the Manager Ship Inspection to cause to be issued an interim document, or similar wording.

Top rail height for pens – Operators have reported problems in interpreting the current wording in the order so Dave explained the provisions, also advising that AMSA will clarify this wording for inclusion in the proposed draft order.

Carriage of horses in pens – Dave informed members that AMSA would consult with DAFF in order to provide clearer provisions in the proposed order relating to the carriage of horses in pens.

Holding Tank for MARPOL Annex V – Dave advised that Provisions 6.6, 6.7 and 6.8 of Appendix 4 of MO 43 will need to be amended, to ensure provision 26 will indicate that MARPOL now requires provision of effluent holding tanks for all livestock vessels, regardless of construction or conversion date.

(Agenda Item 6 continued) Review list of proposed changes for update of MO 43

Longer-term issues

SOLAS amendment compliance

Dave confirmed that the date for compliance with SOLAS 81 amendments in Issue 6 of MO 43 had passed (1 December 2011) but indicated that the next phase could be for MO 43 to mandate SOLAS 91/92 amendments applying to ships constructed on or after 1 October 1994.

Ventilation – provision of audible and visual alarms on the bridge

This was a requirement in the previous Issue of the Order, but with revision of Issue 6 it appears to have been deleted. There was no evidence of justification or reasoning behind the deletion hence it was likely to have been in error. Most (possibly all TBC) vessels appear to already have these provisions in place and Owners have been complying based on their previous conversions/new builds under older Issues, so re-inclusion of the provision in the order is not expected to create major difficulty.

Rail spacing in open structures above the weather deck where rails form the outer perimeter containment (for sheep)

Dave identified AMSA's intention to modify current rail spacing provisions specified for sheep to require 200mm rail spacing in these locations to within 200mm of the overhead structure. Also, the current provision for these locations requiring the maximum vertical space below the bottom edge of the lowest rail, to top of the deck boundary angle or fashion plate to be 100mm, should be reviewed to clarify the relationship between the fashion plate and the bottom rail spacing.

Two Tiers for sheep

This topic has support amongst attendees both for and against this type of construction. A practical contribution was voiced by Lynn Simpson (DAFF), based on her personal experiences aboard vessels fitted with two tiered construction, advising that:

- it is difficult to observe all animals on the lower deck and the feed and water troughs on the top decks also obscure vision of all animals on the top deck;
- the two tier configuration makes access difficult for vets and stockman;
- there is a noticeable amount of faecal gas build up within the restricted deck areas;

However Owners that operate vessels with two-tier sheep decks also advise that there is evidence that

- there is no evidence that mortalities are increased when sheep are carried on such decks
- there is evidence that sheep prefer a more "enclosed" space (less headroom) as this provides them with a less stressful environment which may actually be a significant advantage.

Alex conveyed that there had been no twin tiered ships constructed or converted since Issue 5 of MO 43, most probably because of difficulties in achieving the 0.5 metres/second ventilation requirement across any part of the pen on both tiers.

The issues appear to be:

- that achieving 0.5 metres/second can be different for empty and full pens;
- vessel stiffeners can interrupt the flow of air;
- where there are obstructions, it is difficult to avoid dead spots;
- difficulties in specifying volumetric cut outs or end points;
- assessing the impact of build-up of ammonia, which may become a specified requirement;
- air movement that will actually move and scour out stale air;
- achieving a balance of supply and extraction airflows;
- being able to manipulate different results due to input of different volumetric flows, coat length/animal weight and age etc.;

Alex indicated that, ships meeting the 0.5 m/s requirement appear to be performing better for animals, but this would need to be confirmed by DAFF. He added that some important independent studies had been undertaken by the CSIRO, with valuable assumptions recorded by Conrad Stacey and that AMSA could circulate an image mapping document provided by Ernesto Research indicating that 0.5 m/sec is a desirable minimum air flow to be achieved.

Alex added that, in consideration of some specific reliance outside of MO43 on the 'Hot-Stuff version 4' program which may result in substantially different airflows and velocities, any move away from prescribing the achievement of 0.5 metres/second ventilation requirement across any part of the pen, would need to be supported by comprehensive, effective mapping, reinforced by corroborating data.

ACTION ITEM: Tony will circulate Image of mapping (Ernesto Research)

Ventilation on open decks

Dave reiterated that this arrangement was now considered a high risk since arrangements need to address that:

- achieving 0.5 m/s on open decks can be a challenge in hot still conditions;
 - with the Gulf of Aden referenced where no air flow has required the master to adopt a zig zag course resulting in a longer voyage length; and
 - examples of no ventilation when the vessel is not moving i.e. when loading/discharging

There is a reasonable need for justification to allowing vessels of less than 20metres breadth to be exempted from having a mechanical ventilation system fitted.

The question was raised of introducing a provision differentiating between southern and northern livestock routes, or routes passing through areas above a prescribed temperature and/or humidity.

Dave advised that such a decision would not be able to be restricted to local Australian provisions, and the principles for international cargo transport maintained at the IMO are that provisions are made for safe loading/discharge and carriage of cargo in all expected weather conditions worldwide.

Disposal of dead livestock – comminuters/grinders

Dave flagged that, depending on further outcomes in MARPOL Annex V Provision 36, a comminuter/grinder may become a requirement if grinding becomes a prerequisite for disposal of carcasses overboard.

Currently, MARPOL Annex V specifies that animal carcasses may only be discharged at sea while a vessel is on route and as far as possible from the nearest land, preferably greater than 100 nautical miles from the nearest land in the maximum depth of water possible, with carcasses passed through a comminuter/grinder or have their thoracic cavities opened prior to discharge.

Dave advised that there is also now a MARPOL requirement for discharge of carcasses overboard, whether passed through a comminuter/grinder or not, having to be recorded in the vessels Garbage Record Book noting the carcasses are now included in Annex V as cargo residue.

Discussions took place about the problems with jamming and cleaning of comminuter/grinders and the ready availability of good quality machines at a reasonable cost. It was stated that there are now newer units that are much better than the older units and details could be provided if requested. Issues were also raised about needing to drag larger animals such as cattle to the machines, with the need to cut up larger animals for feeding through a machine, as well as rams heads with horns being an issue for jamming up a machine.

The alternatives were also raised, such as suitable storage of dead animals, including the health risks for crew, with decay of retained dead animals and possibility for spreading disease or illness to other animals on board as considerable issues. It was agreed the provision of holding tanks was unpalatable, as would be associated problems with washdown and disposal in “special areas”, with no available reception facilities. Suggestions for incineration or freezing dead animals raised separate disposal issues, as did the costs associated with all of the alternatives listed above

ISSUES AROUND THE TABLE

That being the end of discussions relating to matters listed in the agenda, the Chair requested members raise any other issues, they would like considered for discussion, including for future meetings:

Philippe and Cameron from Wellard raised:

- Grandfathering provisions, setting a sunset date for ships not meeting certain minimum standards; for example, double tier ships, or older vessels not meeting 0.5m/s ventilation provisions.

Mike Gordon:

- Disagreed with Wellard, stating that if older vessels were well maintained and had good management systems in place then such a requirement would be discriminatory, or equally if newer vessels were poorly maintained the opposite could be true; advocates compliance regardless of age.
- The Regulatory Impact Statement (RIS) should also address such matters (Alex advised that if vessel age was introduced, justification would be required to support a RIS for change).

Bob O'Halloran:

- Need to identify the issues you are addressing and get proposals on the table for discussion.
- What was the 'guidance note' you were referring to on the AMSA website? (refer to the action item box for agenda item 5 above)

Nick Thorn

- Questioned why there is no requirement for provision of a Reverse Osmosis (RO) machine to be provided on vessels.

Dave advised that water may be provided by any suitable means, including freshwater storage tanks, however 10.2 of the Order required a documented maintenance system to be furnished if such a machine is provided for supplying water on board a vessel.

- Is 3 days water adequate or should there be 5 days water & fodder? (refer to Appendix 4 provision 7 requirements and the Note 62 below 7.1)
- Long haul rather than short haul options and extra diesel for Reverse Osmosis machines (refer to 7.3 of MO 43 and Appendix 4 - 2.2 Secondary source)
- 13.4 - Portable fire extinguishers – pellets not hay loaded (refer 13.4 of MO 43)
(Lynn Simpson advised that chaff and sawdust also need consideration for provision of portable fire extinguishers)
- Need for ballast and freshwater pipework to be separated?

Roger Timms, expressed concerns regarding:

- the grandfathering issue, but setting of a 15yr period may resolve this;
- qualification needed for vessels undergoing major modification and change of character or conversion, with a case to be made if the operating life of the ship is extended
- Introduction of SOLAS 91/92 unless expressly provided;
- Harmonising structural fire protection with reasonably contemporary fire protection statements.

Philippe Lecloux

- Plywood on cargo decks

Alex advised that any plywood had to be water and fire resistant but 'marine ply' meeting the specifications is available. However hose testing of seals is also required, as there may be animal welfare issues if they allow leaking of animal wastes into the pens below; or, if they are rotted and fail, so they may need to be reinforced to be strong enough for cattle. Philippe advised that they are changing to aluminium covers.

Dr Bidha Jones (RSPCA)

- Raised the importance of the interaction and for consistency between MO 43 and the ASEL.
- Concern regarding provision 7.7 of Appendix 4, with regard to provision of water and fodder no later than 12hrs after loading, this is a long time, whereas there are discussions at ASEL meetings that this should be 6hrs – so there is a need for both agencies to develop a process for consistency.

Alex advised that this is the reasons that DAFF staff are invited to participate in LAC meetings, particularly to identify any clashes with the ASEL and discuss issues that may affect animal welfare.

Lynn Simpson – listed a number of issues for consideration:

- 1) Provision of livestock proof surrounds around deck openings e.g. sheeted gates on ramps & cargo hatches should have surrounds or be closed, as she had witnessed animal 'swan dives' down openings.
- 2) Installation of removable kick plates in pens (internal)
 - holds faeces in pens, resulting in dry pads, harder to clean down
 - without kick plates better drainage so dryer pads
 - pellets better than cubes - better food option
 - also easier washdown as washing stressful and high maintenance
 - trim and design as, higher plates rusted and dangerous if animals stand on and get plate between toes
 - Input required - practical backgrounds

Alex suggested gate closings need redesigning

- 3) Fodder calculation is currently a guesstimation? So is there a possibility to install incremental lines along ladder or side wall of fodder tank/silos to assist in estimating

Dave advised the practical application of this would be difficult.

Nick said due to different pellet sizes, volumes at different levels would also be different.

Alex suggested the LAC explore a mechanism for estimating remaining fodder in tanks.

- 4) Elevator shafts in cargo area are not always livestock proof – is installation of livestock proof casing possible for protection for animals

- 5) Consider fitting plastic edges around troughs (aluminium square troughs in passageways) as the sharp metal edges cut along between 2 toes of hoof.

- 6) With reference to 8.2 of MO 43 it would be advisable to have lower stocking densities in pens next to hot areas (it was noted that stocking densities are excluded from the provisions of MO43 and are under the jurisdiction of DAFF).

- 7) Monitoring of ammonia levels - currently OIE – World Health Organisation set a level of 25ppm for safety of workers, so could also consider this for animal welfare, the issues are:
 - safety and animal welfare;
 - setting a mandatory system for monitoring;
 - if ammonia and max temperature readings are agreed there are two further considerations
 - setting levels and location and height for monitoring.

Concerns were expressed about cost of monitoring equipment. A number of options such as Dräger tubes and Litmus paper (both have colour indicators when exposed to certain triggers) were suggested.

- 8) Deck Surfaces – and suitability, particularly when loading and discharge
 - generally worse on sharp bends from passageways, so better design would assist
 - also sawdust management in pens (bedding) amount of coverage of surfaces and spill out into passageways can cause problems
 - Cleating - weldmesh covered by bitumen (not in pens) must be maintained; also
 - Bolidt – one for sheep and one for cattle, but both wear and leave smooth deck surface so need to recoat about every 2 years

Nick suggested

- Deck management ensuring feed or sawdust swept back into pens before load/discharge
- Loading management, quieter loading, narrower corners slow animals down.

Alex advised layout may be different for new vessels as opposed to existing vessels, especially corner runs.

ACTION ITEMS: Lyn Simpson interested in any feedback and AMSA will also be seeking feedback on pen design and surfaces, including ensuring pen areas are impervious for preventing effluent from leaking onto deck below...

Members are reminded to submit any additional comments to AMSA for circulation to members or for further consideration and/or discussion at the next meeting.

Tony to draft mocked up order for distribution.

Secretariat to circulate minutes.

- Call for comments
- Alex thanked members for their attendance and participation

MEETING CLOSED AT 4PM