Nō te rere moana Aotearoa
MARITIME NEW ZEALAND

Implementation of SOLAS container weight verification requirements

Discussion Document

October 2015

Contents

Summary

1. Maritime New Zealand (Maritime NZ) is seeking feedback on the preferred options for implementing amendments to Chapter VI of the International Convention for the Safety of Life at Sea (SOLAS) that will require all export containers to have a verified weight.

2. Misdeclared container weights are a safety and environmental issue. Incorrectly declared container weights make it difficult to plan the safe stowage of a ship and place pressure on the ship's structure. This puts the safety of the crew and the cargo at risk. Misdeclared container weights also put the safety of port side workers at risk.

3. SOLAS as currently worded requires that the weight of the container match the weight given in the shipping documents. This requirement is reflected in Maritime Rule Part 24B.

4. The amended SOLAS text requires shippers to provide a verified weight in the shipping documents. This must be obtained using either of the following two methods:

   - Weighing the packed container using calibrated and certified equipment; or
   - Weighing all packages and cargo items, including the mass of pallets, dunnage and other securing material to be packed in the container and adding the tare mass of the container to the sum of the single masses, using a certified method approved by the competent authority of the State in which packing of the container was completed.

5. The SOLAS amendments enter into force on the 1st of July 2016. Maritime NZ intends to implement the amendments via an update to Maritime Rule Part 24B by this date.

Preferred options

6. Maritime NZ's preferred option in relation to the implementation of Method One is to require shippers to weigh the packed container as follows:

   - Weigh the packed container using approved weighing equipment that is verified, and marked with a current annual 'certificate of accuracy' in accordance with New Zealand's Weights and Measures legislation.

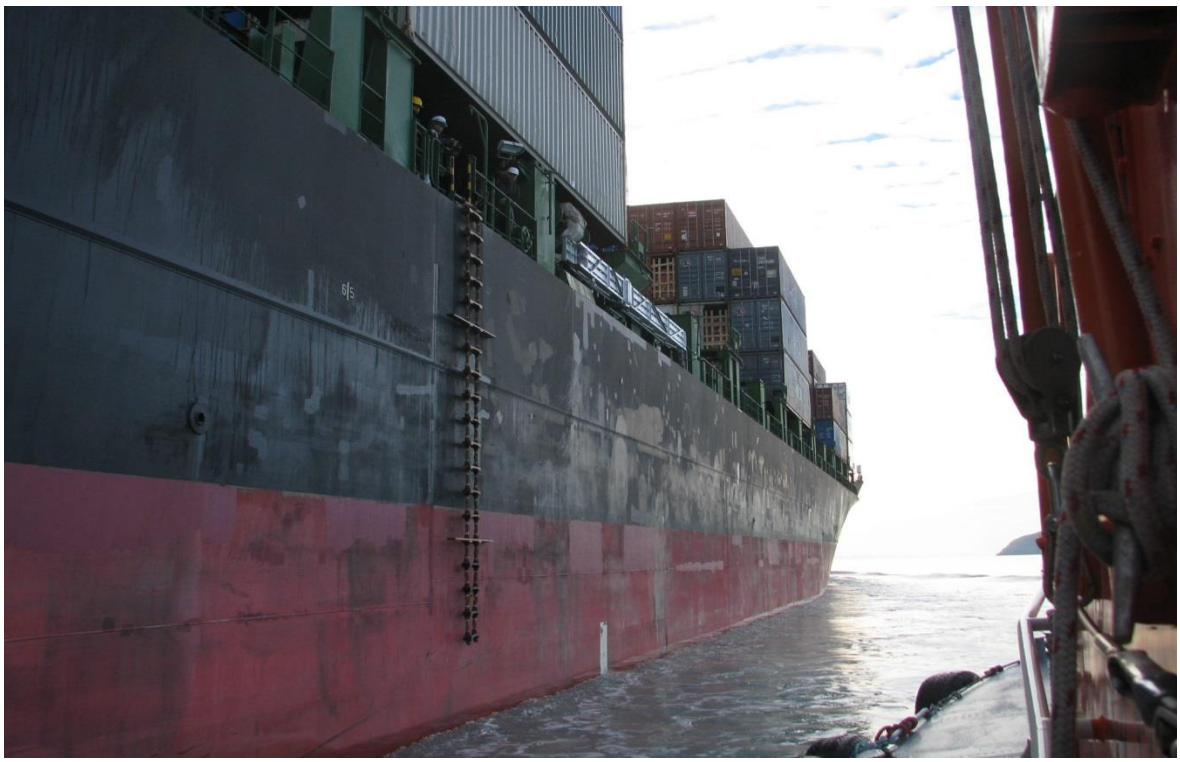
7. Maritime NZ's preferred option in relation to the implementation of Method Two is to require the shipper to calculate the weight of the packed container by either:

   - Weighing every single item to be packed into the container on trade approved equipment, verified and marked with a current 'certificate of accuracy' in accordance with the existing weights and measures legislation. The combined weight of the goods, including the weight of the dunnage and packaging, would be added to the tare weight of the container to arrive at a verified gross container weight. The pallets, packaging and dunnage could be weighed on trade approved equipment by a third party. This calculation would use the tare weight of the container and measurements made on equipment of known accuracy; or

- Calculating the weight of the packed container using a system based on predetermined quantities,[1] the weights for which are obtained using trade approved equipment, verified and marked with a current 'certificate of accuracy' in accordance with the existing weights and measures legislation. The system must be confirmed by regular audits.

8. Matters such as the form of the shipping documents, who signs the documents, and the time by which the verified weight needs to be with the port or the shipping company are commercial matters to be agreed between the parties.

9. Where a verified weight cannot be obtained, or there are serious and/or ongoing breaches of the verified weight obligations, Maritime NZ would be notified as appropriate.



[1] Predetermined quantities are used in a system that calculates the weight of a container on the basis of a known weight for the quantity of the product being exported, in addition to packaging and/or pallets, without physically weighing every single package. These predetermined quantities must be obtained using trade approved equipment that is verified and marked with a current 'certificate of accuracy' in accordance with the existing weights and measures legislation. The predetermined weights should be regularly confirmed.

Introduction

10. Maritime NZ is seeking feedback on the preferred options for the implementation of the amendments to the International Convention for the Safety of Life at Sea (SOLAS) that will require containers to have a verified weight.

11. Amendments to SOLAS to require the containers to have a verified weight were adopted in 2014 and will enter into force on 1 July 2016.

Background

Status quo

12. SOLAS sets minimum standards for the design, construction and equipment of international shipping. Chapter VI of SOLAS makes provision for the safety of cargoes. Regulation 2 of Chapter VI sets standards for cargo documentation, including mandatory requirements for information relating to containerised cargo.

13. As presently drafted, SOLAS Chapter VI Regulation 2 requires the shipper[2] to provide the master or the master's representative with the cargo information including the gross mass of the cargo. The shipper is required to ensure that the gross mass of the unit is in accordance with the gross mass declared in the shipping document. This information must be provided to the master or the master's representative sufficiently in advance of loading to enable precautions to be taken which may be necessary for the proper stowage and safe carriage of the cargo. These requirements are reflected in Maritime Rule Part 24B.4.

14. Despite these existing obligations on shippers, misdeclared container weights have been an ongoing problem worldwide.

15. Ports generally rely on the weight recorded on the carter's note for ship stowage planning purposes. International studies have found that container weights are often estimated and for this reason cannot always be used as a basis for stowage plans.

16. Incorrect weights mean that the weight distribution onboard is often different to that in the stowage plan, with heavier boxes placed higher in stacks and lighter boxes bearing the loads. This causes the stacks to become unstable. Unstable stacks result in lost containers, collapsed stacks and damage to the ship.[3] It may also result in the uneven distribution of weight across the ship which may cause instability and even damage to the ship.[4]

17. Misdeclared weights also have an impact on the health and safety of crew and stevedores. Where container stacks fail, or the ship is damaged or foundered, the lives

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2 Maritime Rule Part 24B.2 defines a shipper as "any person who offers goods for carriage by sea, and includes any person who arranges for the carriage of goods by sea on behalf of any other person".

3 MARIN, Lashing@Sea, (2009), p. 44.

4 Ibid, pp 43-44.

of crew may be put at risk. Crew and stevedores may also be put at risk where port side equipment fails as a result of overloading.[5]

18. The World Shipping Council estimates that an average of 546 containers are lost at sea each year, excluding containers lost as a result of catastrophic events.[6] The UK Marine Accident Investigation Branch (MAIB) report on the ***MSC Napoli*** found that the weights of a large number of the containers had been incorrectly declared.[7] The MAIB advised that the problem of misdeclared weights was prevalent in the industry due to a lack of weighing facilities, and shippers knowingly declaring lower weights to avoid import duties, maximise container use and get around road and rail weight rules.[8] The MAIB has also published reports on three other incidents where inaccurate container weights were identified as a causal factor in ship or container stack failure.[9]

19. The extent to which container weights are misdeclared in New Zealand cannot be precisely quantified. The Police Commercial Vehicle Inspection Unit (CVIU) sampled 22 container weights at its Stanley Street weighbridge in Auckland in 2013. The CVIU found that 50% (11) of the containers exceeded the weight recorded in the carter's note, with 82% of those 11 containers exceeding the recorded weight by more than half a tonne.

5 See examples in Denmark et al, Verification of Container Weights, DSC 17/INF.5, (2012), Annex, pp 2 – 3.

6 World Shipping Council, Survey Results for Containers Lost at Sea – 2014 Update, (2014), p 2.

7 UK Marine Accident Investigation Branch, Report on the investigation of the structural failure of MSC Napoli English Channel on 18 January 2007, (2008), p. 42.

8 Ibid, p 42.

9 Freight Transport Association, Loading containers: implications for shippers, forwards and hauliers, http://www.fta.co.uk/search/?index=FTA+site&action=search&searchPage=1&query=loading+containers+implications+for+shippers p. 2.

SOLAS amendments

Details of the amendments

20. In 2011 Australia, the Netherlands and Denmark proposed amendments to SOLAS to require that the shipper provide a verified weight when submitting cargo documentation.[10] The proposal followed the findings of the ***MSC Napoli*** and a number of other incidents worldwide,[11] a formal study on the loss of containers, and a targeted inspection campaign. Initially the proposal sought to require all export containers to be weighed.[12] Following negotiation, it was agreed to amend Chapter VI, Regulation 2 to require containers to have a verified weight, obtained by either:

Method One

- weighing the packed container using calibrated and certified equipment; or

Method Two

- weighing all packages and cargo items, including the mass of pallets, dunnage and other securing material to be packed in the container and adding the tare mass of the container to the sum of the single masses, using a certified method approved by the competent authority of the State in which packing of the container was completed.

21. The verified weight must be signed by a person authorised to do so by the shipper. It must also be submitted to the port or the master sufficiently in advance of loading to be used in the stowage plan. Where a verified weight is not provided, the master and the port representative will be obliged to refuse to load the container.

22. The regulations have been amended via the tacit acceptance process. Under this procedure, amendments to technical Annexes to SOLAS adopted by member states come into effect on an agreed date. The entry into force date for the amended requirements is the 1st of July 2016.

Amendment objectives

23. The primary objective of the SOLAS amendments is to enhance the safety of international container shipping. Misdeclared container weights have serious safety consequences throughout the supply chain. In the context of international shipping, misdeclared container weights can result in unsafe stowage plans, (of which the declared weight is an important component). This may result in the failure of the container stack, instability and excessive stress on the ship's structure, often with catastrophic consequences.

24. Misdeclared container weights also have consequences land side. This includes, for example, port crane failure when containers exceed the load limit, as well as trucks and

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[10] Australia, Denmark and the Netherlands, Proposed measures to prevent loss of containers, MSC 89/22/11, (2011).

[11] See for example ***Deneb***, ***MV Limari***, ***P&O Nedlloyd Genoa***, and ***Husky Racer***

[12] Denmark et al, Verification of container weights, DSC 17/7, (2012).

rail carriages overturning as a result of instability. In addition, containers lost at sea create navigation hazards, putting the safety of ships at sea and their crew at risk.

25. There are also significant economic consequences associated with misdeclared container weights. The insurance bill for the ***MSC Napoli*** was in the region of £120 million. The sinking of the ***MOL Comfort*** which has also been associated with misdeclared container weights,[13] is expected to cost insurers US$523 million.[14]

26. From a more localised perspective, misdeclared container weights may mean that cargo is left behind once a ship reaches capacity, causing flow on economic loss and supply chain disruption. In addition, costs to the insurance industry linked to cargo and ship loss can result in increased insurance premiums. These are passed onto shippers either via increased insurance premiums or indirectly via freight rates. As an economy that is largely dependent on containerised exports, supply chain disruptions and increased shipping and insurance costs associated with misdeclared container weights may have a detrimental impact on export earnings over time.

27. Lost and damaged containers are also an environmental concern. Damaged containers can leak contents, including hazardous substances into the ocean.[15] Lost containers may float around for significant periods of time, sink, or wash ashore and release potentially toxic materials into the ocean.[16] In addition, the paints used on containers are themselves potentially environmentally hazardous.[17]

28. The safety and economic objectives of the amendments are in line with the Minister's objectives, pursuant to section 5 of the Maritime Transport Act. This requires the Minister to exercise his functions in a way that contributes to an integrated, safe and responsive transport system, and to ensure New Zealand's obligations under international conventions are implemented.

[13] Bahamas and Japan, Interim report on large containership safety in response to the loss of MV MOL Comfort, MSC 93/INF.14, (2014), p 39.

[14] Allianz Global Corporate & Specialty, Global Claims Review 2014, (September 2014), p 17.

[15] Oren T. Frey and Andrew P. De Vogelaere, The Containerised Shipping Industry and the Phenomenon of Containers Lost at Sea, (March 2014), p 17.

[16] Ibid, p 17.

[17] Ibid, p 17.

Options for implementation

Method One

Weighing the container using calibrated and certified equipment

29. Method One allows the shipper to weigh the packed container using calibrated and certified equipment. The type of equipment to be used is not specified in the amended SOLAS text. Calibrated and certified equipment is, however, defined in the guidelines accompanying the amendments as follows:

    "A scale, weighbridge, lifting equipment, or any other device, capable of determining the actual gross mass of a packed container or of packages and cargo items, pallets, dunnage and other packing and securing material, that meets the accuracy standards and requirements of the State in which the equipment is being used."

30. There are several ways in which New Zealand could give effect to Method One. The first and preferred option is to require shippers to use weighing equipment that meets the requirements of the Weights and Measures Act and Regulations. Alternatively, Maritime New Zealand (Maritime NZ) could establish a system for certifying weighing equipment. Lastly, shippers could use equipment, the accuracy of which would be assured on a self-regulating basis.

Option A – trade approved weighing equipment

31. Requiring shippers to use trade approved weighing equipment to fulfil the SOLAS requirements, will ensure that container weights are accurately declared according to the well-established and understood regulatory regime for weights and measures.

32. Trade measurement in New Zealand, which includes ensuring weighing equipment is accurate, is administered and enforced by Trading Standards[18], a unit within the Ministry of Business, Innovation and Employment (MBIE). This is given effect through the Weights and Measures Act 1987 and supporting regulations. The legislation, which is based on international best practice, requires that weighing equipment used for trade purposes is approved and verified to be within specified tolerances.

33. New Zealand is a full member of the International Organisation of Legal Metrology (OIML). OIML is an international treaty organisation consisting of 121 member states, who set the standards and model regulations that form the basis of New Zealand's trade measurement system.

34. The current system requires that all weighing equipment used for trade must be of a type approved by Trading Standards. This involves a detailed examination against the OIML international standard to ensure it is suitable for use in the New Zealand market and that it will not facilitate fraud. Once a 'certificate of approval' has been issued for the equipment type by Trading Standards, the equipment must be individually tested and verified by an Accredited Person before it can be used for trade purposes. An Accredited Person is an individual who is accredited by Trading Standards and has demonstrated the required skills and knowledge to complete a detailed examination and physical tests of the equipment before applying their 'mark of verification' and/or

[18] Trading Standards Website

'certificate of accuracy'. Currently there are 260 Accredited Persons in New Zealand. A 'certificate of accuracy' can be applied and renewed annually but this is not a mandatory requirement. The 'certificate of accuracy' provides the owner with increased confidence in the weighing equipment's accuracy and a limited statutory defence if it is found to be outside specified tolerances by a Trading Standards Officer.[19]

35. An audit, completed in 2014, found there are 45,000 trade approved, verified and certified weighing and measuring instruments in New Zealand. This included over 20,600 platform and bench scales and over 1,600 high capacity weighing instruments such as weighbridges. The tolerances applied to this equipment is prescribed in weights and measures legislation, for example to issue a 'certificate of accuracy' to a weighbridge that has a maximum capacity of 60,000 kg, the errors established must be within a maximum tolerance of +/- 60kg (0.1%).

36. Adopting the existing weights and measures regime will ensure that weighing requirements are consistent with international and domestic 'best practice'. This will also mean that owners of trade approved weighing equipment that currently meet the existing requirements of the Weights and Measures Act, will not need to seek additional certification to comply with SOLAS. Adopting this existing system would also avoid the creation of a duplicate scheme that could potentially create confusion and additional compliance costs for some shippers.

37. There is a possibility that weighing equipment currently in use may not meet the standards of the Weights and Measures Act and Regulations. This could include equipment with weighing capability built in that is not principally intended as a weighing instrument. This equipment may be calibrated to a lesser standard. Equipment owners may need to invest in ensuring that the equipment meets the requisite standards should they wish to use it for providing verified container weights. Any associated costs are expected to be outweighed by the benefits to safety and the costs associated with establishing a parallel regime.

38. A lack of certification and assurance around calibration standards means that the equipment may not be providing an accurate weight. Furthermore, equipment owners could benefit commercially from having trade approved equipment. Both the service of providing a verified weight and a trade approved weight can be on-charged to the customer, which may in turn compensate for investment made in upgrading equipment.

Option B – Maritime NZ certified weighing equipment

39. Another option for implementation of Method One could involve Maritime NZ certifying and overseeing the calibration of weighing equipment. This would involve Maritime NZ certifying weighing equipment around the country, in accordance with standards that would need to be developed. This could fit well with Maritime NZ's role as the maritime safety regulator, and agency generally responsible for the enforcement of SOLAS requirements. Retaining some measure of oversight of container weight verification may avoid confusion. A parallel regime for the approval of weighing equipment may also

[19] See Appendix 1 for more detail.

create flexibility for shippers and others in the business of providing weighing equipment.

40. It is difficult, however, to see the costs of this type of system outweighing the benefits. Currently Maritime NZ has no expertise in the area of weights and measures. In order to be able to administer such a scheme, Maritime NZ would need to develop new regulations around minimum requirements for weighing equipment. It would then need to train compliance staff in the area of approval of weighing equipment, as well as ensuring that enough compliance staff are available to enforce the requirements. Furthermore, Maritime NZ would need to ensure that it had the internal capacity to undertake the processing of applications for approval of weighing equipment. Even if the certification process were to be delegated to a non-government organisation, Maritime NZ would need to be in a position to exercise control and audit the performance of their functions.

41. Taking into account the existence of the Weights and Measures system, this would have the effect of creating a parallel regime entailing extra costs for ensuring the accuracy of weighing equipment. The accuracy of much of this equipment will already have been ascertained in accordance with international and national requirements.

Option C – self-regulation

42. The third option is to allow shippers and weighing equipment owners to certify and calibrate their own equipment with no oversight from Maritime NZ or any other agency. Shippers and weighing equipment providers could self-certificate and calibrate their weighing instruments to what they deem to be an acceptable standard. This would have the advantage of negating any need for compliance activity by government agencies in terms of certification and calibration. It would also mean that shippers and weighing equipment owners do not need to expend resources on ensuring that equipment is certified and calibrated to a universal standard. Furthermore, shippers would face no constraints in relation to the type of equipment used, and adapt equipment to their business needs, without having to meet certification and calibration requirements. This may also reduce costs as certified equipment could be more expensive.

43. The amended text explicitly requires weighing equipment to be certified and calibrated. Self-regulation would not meet the intent of the SOLAS amendments. Under a self-regulating scheme, there would be no oversight of the standards or reliability of the weighing equipment used. Shippers could use any equipment regardless of its suitability for weighing loaded containers or its level of accuracy. There will be no formal oversight of the equipment used. Accordingly, there will be no guarantee that the weighing equipment provides a weight with a degree of accuracy that might be considered acceptable. It will also be difficult for Maritime NZ to take enforcement action should there be an allegation that a shipper has failed to provide a properly verified weight due to the lack of any standards or certification. This may be detrimental to New Zealand exports.

44. Misdeclared containers put the safety of road users, stevedores and ships' crew at risk, not only in New Zealand, but also in countries receiving our exports. A failure to support and implement the amended regulations may be perceived as undermining the integrity

of the international safety of life at sea regime. This may have flow on effects in terms of the quality of container shipping serving New Zealand. Better quality operators may be concerned for the safety of their ships and crew and instead opt to visit countries that fully apply and enforce the verified weight requirement. This could result in New Zealand becoming a "port of convenience", posing safety and environmental risks.

Conclusion

45. Method One requires the use of certified and calibrated equipment. The Weights and Measures Act and Regulations administered by Trading Standards currently require weighing equipment used in trade to be certified and calibrated to international standards. Using this system to meet the certification and calibration requirements of SOLAS will avoid duplication, limit compliance costs for industry, and minimise administrative costs for Maritime NZ, whilst ensuring safety.

Method Two

Weighing all packages and cargo items, including the mass of pallets, dunnage and other securing material to be packed in the container and adding the tare mass of the container to the sum of the single masses, using a certified method approved by the competent authority of the State in which packing of the container was completed.

46. Method Two is designed to provide some flexibility to shippers, particularly those packing homogenised products and products subject to weighing requirements due to, for example, a weight based price or import quotas. Method Two allows shippers to weigh all packages and cargo items, including the mass of pallets, dunnage and other securing material to be packed in the container. The shipper can then add the weight to the tare mass of the container. This method must be performed in accordance with a certified method approved by the competent authority of the State in which packing of the container was completed.

47. In the case of New Zealand, the container packing is completed within our jurisdiction, meaning that shippers will need to use a New Zealand approved method. In order to enable shippers to take advantage of Method Two, an alternative method must be provided for, that meets the safety objectives of the amendments.

48. As with Method One, three options are available to New Zealand for the implementation of Method Two. These are reliance on the existing Weights and Measures Act and Regulations, the establishment of a Maritime NZ verification regime for weighing systems, or self-regulation by shippers of weighing systems.

Option A – trade approved weighing systems

49. The first option, due to the confidence in measurement accuracy it would provide, is to require shippers to either:

    - Weigh every single item to be packed into the container on trade approved equipment, verified and marked with a current 'certificate of accuracy' in accordance

with the existing weights and measures legislation. The combined weight of the goods, including the weight of the dunnage and packaging, would be added to the tare weight of the container to arrive at a verified gross container weight. The pallets, packaging and dunnage could be weighed on trade approved equipment by a third party. This calculation would use the tare weight of the container and measurements made on equipment of known accuracy; or

- Calculate the weight of the packed container using predetermined quantities which were obtained using trade approved equipment, verified and marked with a current 'certificate of accuracy' in accordance with the existing weights and measures legislation. The system must be confirmed by regular audits.

50. In addition to equipment, Trading Standards carries out quantity inspections of packaged goods at manufacturers and packers to ensure the net quantity of the goods is equal to the net quantity stated on the packaging.

51. Similar to the international system for weighing equipment, New Zealand's packaged goods system is also based on an international statistical sampling method derived from the OIML International Recommendations (technical standards). New Zealand exports, for example, dairy products, meat, timber, newsprint, vegetables, wine, honey and beer which are commonly sold on the basis of weight or volume. In the majority of cases, exporters are currently relying on Trading Standards approved equipment to confirm the final net quantity of the goods are in accordance with the requirements of the weights and measures legislation. This ensures that the New Zealand exporters are currently compliant with their commercial and regulatory obligations.

52. This existing system means that, in effect, many New Zealand exporters already have the trade approved weighing instruments needed for this option of determining the gross weights of containers.

53. The costs involved in implementing these additional requirements for industry are not expected to be significant. There may be some additional costs for certain types of exporters. There is a risk that some shippers who do not export on the basis of weight or volume may initially experience difficulty with complying with this option. This risk should be mitigated by effective education and publicity around the amendments and the option of using Method One.

Option B - Maritime NZ weighing system

54. A second possibility is to create an alternative weighing system administered by Maritime NZ. This would involve Maritime NZ approving the weighing systems used by individual shippers to arrive at a weight. Creating a new regime for the verification of container weights administered by Maritime NZ may give some flexibility to certain types of shippers and potentially create a greater range of options.

55. This option would, however, require investment by Maritime NZ in new systems and compliance activity outside the range of matters it currently regulates. Maritime NZ operates on a cost recovery model and the costs associated with the issue and inspection of weighing systems would need to be recovered, creating additional costs for industry.

56. Taking on this function could result in considerable additional costs for Maritime NZ as this is currently outside anything Maritime NZ currently regulates.

Option C – self-regulation

57. A third option is to allow shippers to self-regulate and calculate a verified weight on their understanding of the goods and packaging. Shippers could use a system of their own creation to arrive at the weight of the packed container. This would provide shippers with autonomy in terms of relying on a system that they are familiar with to arrive at a verified weight. In addition, it would allow them to adapt weighing systems to the particular needs of their business. It will also eliminate any requirement to rely on approved systems or equipment.

58. Allowing self-regulation in this respect is unlikely to produce the desired results. It will also make enforcement difficult for shippers and Maritime NZ. Neither party will be certain of the obligations or the expectations of the other. Should there be a discrepancy between a verified weight provided and an actual weight, it will be difficult for Maritime NZ to take enforcement action if shippers have simply used their own system.

59. Conversely, shippers facing enforcement action or simply a dispute over a verified weight with another party may be placed in a difficult position as they may have used what they consider to be a good system, which in fact is later found to be inaccurate.

60. Ports and shipping companies may also be placed in a difficult position where they have concerns over the weight of a container. They may simply be met with the response that the shipper has provided a verified weight in compliance with New Zealand law.

Conclusion

61. The Weights and Measures Act and Regulations set out in Option A provide consistent standards that are internationally recognised for the weight and measurement of goods. Many of New Zealand's exports are packed and sold on the basis of compliance with this regime.

62. Using the existing Weights and Measures regime to implement Method Two will avoid duplication of regulatory effort, limit compliance costs, simplify enforcement, and ensure the safety of packed containers in accordance with the SOLAS requirements.

Other matters related to implementation

63. Other aspects of implementation have also been considered including:

- the form of the shipping documents;
- the position of the person signing the documentation;
- the time by which the verified weight must be provided; and

- obligations on ports and shipping companies in relation to containers without a verified weight

Documentation

64. Shippers are required to state the verified gross mass in the shipping documents. The amended text states that the certified weight may be transmitted by electronic means. It is not proposed that specific requirements be introduced in relation to the format or location of the verified weight, except that it must be provided on the shipping documents, clearly state that it is the verified weight, and be signed by the person authorised to do so by the shipper.

65. The guidelines accompanying the amendments envisage that the shipping document containing the verified container weight will form part of the shipping instructions to the shipping line.[20] Alternatively, it could be a separate document, for example a weight certificate issued by a weighing station.[21]

66. There are various forms of shipping documentation in circulation, and in the absence of an international pro forma requirement, it would be impractical for Maritime NZ to develop a format for documenting the verified weight.

Signing the verified weight

67. The verified weight must be signed by a person duly authorised to do so by the shipper. In light of the varying sizes, types and organisational structures of shippers throughout New Zealand it is not considered practical to specify who in an organisation should be signing the shipping documentation in this respect. It is up to the shipper to make this decision and provide the appropriate person or people with the authority to do so.

Providing the weight to the port and master/shipping company

68. The amended SOLAS text requires the verified weight to be provided to the port sufficiently in advance of loading to ensure proper loading and stowage of the cargo. New Zealand ports and shipping companies all have operating procedures and requirements around the provision of cargo documentation.

69. In light of the individual conditions and procedures under which ports, shipping companies, shippers, packers and trucking companies operate, it would be challenging to specify an exact time. Ports, shipping companies and shippers will need to arrange an appropriate time that enables the port and the shipping company to plan the safe stowage of the ship.

Containers without a verified weight

70. There is an obligation on both the master and the port not to load a container where it does not have a verified weight. It is not envisaged that any further obligations will be placed on the port and master beyond refusing to load containers without a verified weight. A new weight could be obtained by the port in the first instance.

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[20] Guidelines regarding the verified gross mass of a container carrying cargo (MSC.1/Circ.1475), para 6.

[21] Ibid.

71. The economic consequences of a failure to provide a verified weight or where a verified weight is found to be incorrect, such as repacking the container or driving it over a weighbridge, are a commercial matter for the parties.

72. Were the lack of a verified weight or an obviously incorrect weight has the potential to become a safety issue, or there were serious breaches of the verified weight obligations, Maritime NZ would be notified as appropriate. The action taken by Maritime NZ upon notification will depend upon the nature of the breach.

Summary of preferred options for implementation

73. The preferred option in relation to the implementation of Method One is to require shippers to weigh the packed container as follows:

    - Weigh the packed container using approved weighing equipment that is verified, and marked with a current annual 'certificate of accuracy' in accordance with New Zealand's Weights and Measures legislation.

74. The preferred option in relation to the implementation of Method Two is to require shippers to obtain a verified weight by either:

    - Weighing every single item to be packed into the container on trade approved equipment, verified and marked with a current 'certificate of accuracy' in accordance with the existing weights and measures legislation. The combined weight of the goods, including the weight of the dunnage and packaging, would be added to the tare weight of the container to arrive at a verified gross container weight. The pallets, packaging and dunnage could be weighed on trade approved equipment by a third party. This calculation would use the tare weight of the container and measurements made on equipment of known accuracy; or
    - Calculating the weight of the packed container using a system based on predetermined quantities,[22] the weights for which are obtained using trade approved equipment, verified and marked with a current 'certificate of accuracy' in accordance with the existing weights and measures legislation. The system must be subject to regular audits.

75. Matters such as the shipping documents, who signs the verified weight, the time by which the verified weight needs to be with the port or the shipping company, and instances where a verified weight are not provided are commercial matters to be agreed between the parties.

[22] Predetermined quantities are used in a system that calculates the weight of a container on the basis of a known weight for the quantity of the product being exported, in addition to packaging and/or pallets, without physically weighing every single package. These predetermined quantities must be obtained using trade approved equipment that is verified and marked with a current 'certificate of accuracy' in accordance with the existing weights and measures legislation. The predetermined weights should be regularly updated.

Enforcement

76. Breaches of the Maritime Transport Act and Maritime Rules have various consequences, depending on the severity and nature of the breach. These include financial penalties and imprisonment.

77. The enforcement powers of a Trading Standards Officers, referred to as Inspector of Weights and Measures within the Weights and Measures Act include the following:

- Enter any premises and inspect / test any weighing equipment that is used for trade
- Require the production of and take copies of any documents relating to any weighing equipment used for trade
- Seize and detain any weighing equipment used for trade
- Prohibit the use of any weighing equipment that does not comply with the legal requirements of the Regulations

Where a breach of the Weights and Measures legislation is found, an Officer can issue a Letter of Warning, Infringement Offence Notice (penalty fine) or instigate legal proceedings (prosecution).

These Offences include:

Legislation	Description of Offence	Infringement Fee	Maximum fine on conviction
Section 21 of W&M Act	Using for trade, or possessing for use for trade, any weighing equipment that is not stamped with prescribed verification mark	$500	$10,000
Section.24 of W&M Act	Using for trade, or possessing for use for trade, any false or unjust weighing equipment	$500	$10,000
Regulation 7 of W&M Regulations	Failing to comply with condition or limitation prescribed in certificate of approval	$200	$2,000

These amendments do not change obligations under the Land Transport Rules and the Health and Safety at Work Act and supporting regulations.

Submissions

How to have your say

The deadline for making submissions on the discussion document is 5pm on the 30th of October 2015.

You may make comments by:

- email to rules.coordinator@maritimenz.govt.nz
- ordinary post to PO Box 25620, Wellington 6146
- fax to (04) 494 8901
- delivery to Maritime New Zealand, level 11, 1 Grey Street, Wellington.

Submissions are public information

Please indicate clearly if your comments are commercially sensitive or should not be disclosed for some other reason. If your submission is subject to an Official Information Act (OIA) request, Maritime NZ will consider your confidentiality request in accordance with the grounds for withholding information set out in the OIA.

Subject to the provisions of the Privacy Act and the OIA, you may view the submissions made by other people at the Wellington office of Maritime New Zealand between 8.30 am and 4.30 pm on weekdays (except statutory holidays). Please arrange this beforehand by calling 0508 22 55 22 and asking for the Manager, Domestic and International Policy.

Appendix

New Zealand Weights and Measures System

What weighing equipment is in 'Use for trade'?
If you are using weighing equipment to determine a quantity that will form a basis for a financial transaction, then the weighing equipment used will be deemed to be in 'use for trade' under the Weights and Measures Act 1987.

Who is Trading Standards?
Trading Standards is a regulatory unit within the Ministry of Business Innovation and Employment. Trading Standards Officers (also known as Weights and Measures Inspectors) administer and enforce the Weights and Measures Act 1987 (the Act) and the Weights and Measures Regulations 1999 (the Regulations). Officers will routinely complete compliance inspections on weighing equipment which are in 'use for trade'.

What does 'Trade Approved' also referred to as 'Type Approved' mean?
All weighing equipment that is in 'use for trade' must be of an 'approved type'. Approved instruments have been examined against the international standard and determined by Trading Standards to be suitable for trade use, will not facilitate fraud and issued with an 'approval certificate' .

What does verified mean?
It is a legal requirement for all weighing equipment that is in 'use for trade' to be stamped with a 'mark of verification'. A 'mark of verification' must be applied directly to the equipment and can be stamped into a lead seal or be affixed by an adhesive, destructible label. It will take the form of either the Letters 'AP' followed by the technician's personal identification number or the 'crown stamp'.

What does a 'certificate of accuracy' provide?
'Certificates of accuracy' are renewed on an annual basis after receiving a detailed examination and physical test by an Accredited Person (AP). Maintaining a current 'certificate of accuracy' for weighing equipment in use for trade is a voluntary requirement under the Act. Maritime NZ are proposing to make it a mandatory requirement when the weighing equipment is used for meeting the requirements of SOLAS.

Having a current 'certificate of accuracy' in place provides the owner of the equipment with a 'defence' if the equipment is found to be 'false or unjust'. This defence is only available in situations where the operator or owner of the equipment neither knew nor had any reason to suspect or believe the equipment was false or unjust.

What is the legal standing for 'Calibration Certificate' for weighing instruments used for trade?
A 'Calibration Certificate' affixed to a weighing instruments which is used for trade has no legal standing within the Weights and Measures Act 1987 and 1999 Regulations. The certificate does not provide the owner with any of the protection provided by a 'Certificate of Accuracy'. There is also no harmonised requirement for the; test procedures used, the level of accuracy and tractability of the standard used for testing, the form and duration of the certificate and the level of skill and knowledge of the person completing the calibration.

A ‘Calibration Certificates’ is suitable to provide confidence to the owner of a weighing instrument, that is not used for trade purposes, that their instrument is accurate and within a declared tolerance**.** It is often used for weighing instruments that are used for measuring ingredients or internal quantity control systems.

Who Are Accredited Persons?

Accredited Persons (APs) are accredited under the Weights and Measures Act 1987 and have the authority to apply a ‘mark of verification’ and affix a ‘certificate of accuracy’ to weighing equipment that complies. APs may stamp any weighing equipment with the ‘mark of verification’ and/or issue a ‘certificate of accuracy’ at the request of the owner of any equipment that is in use for trade. APs can charge for the work they undertake. APs do not have any powers of entry and may remain on the premises at the discretion of the owner. Where an AP declines to stamp any weighing equipment on the grounds that it does not comply with the Act and/or the Regulations, they must issue the owner of the equipment with a ‘notice of non-compliance’. Where a ‘notice of non-compliance’ has been issued, the equipment cannot legally be used for trade. The notice further serves to notify the owner of the equipment that continued use may result in legal action being taken by Trading Standards.

A list of Accredited Persons is available here