Submission to the Independent Review of Australia's Domestic Commercial Vessel Safety Legislation

About me

I have a lifelong connection with the sea vessels. I have been involved in some capacity with the sea from a very early age and have an extensive career, commencing at the age of 16 working within the industry.

My experience includes:

- scrubbing and cleaning vessels,
- time at sea operating vessels;
- selling vessels;
- fitting and turning engineering parts for vessels;
- building vessels;
- designing vessels;
- surveying vessels;
- writing policy and standards for vessels; and
- as a regulatory practitioner.

I states this to highlight that I have both a grass roots connection with industry, the experience of working within it in a physical capacity, as well as experience a professional service provider, consultant and later regulator of it.

I have strong connections with my industry and a desire to see it evolve in a manner that is best for those involved within it.

I am a qualified Naval Architect, MRINA, CPENG.

Executive summary

Domestic Commercial Vessel Safety legislation is a product for the Australian public. From large corporations, operating hundreds of vessels, down to the humble single person operator. It is a product that must suit and appeal to the masses. A humble product that is simple, functional, accessible, flexible, appropriate.

Domestic Commercial Vessel Safety legislation is like a Toyota corolla. A product who's market includes both to a large operator with a fleet of vehicles, down to your mum and dad. It gets a large range of jobs done without all the bells and whistles.

The Navigation act and its subsidiary legislation is a product for the international market. It is not a product developed for Australia but one developed for international trading companies who have a different set of needs to the Australian public. The Navigation act and its subsidiary legislation is Australia's adoption of the conventions and frameworks developed though the IMO to suit Russian oil barons, Singaporean trading ships and oil tankers from the UAE. It is a product in which Australia has only a small amount of say in though the International Maritime Organisation and one which is developed through consensus at a glacial pace.

The Navigation act is like a Lexus. A product a product to suit a market that demands fancy features to enables those who can afford it to trade in any country in the world with an international framework of service providers and a "brand" that will be accepted at any port in the world.

The independent review is currently considering the appropriate legislative framework to suit our domestic industry. I put it to the review, that the Australian Market needs a product specification (regulations and standards) designed for it. Not one which relies on or compromises to the international framework. The product specification for a Lexus is not the same a Corolla.

I put it to the review committee that the standards and regulations for the domestic fleet should be separate to those for our international trading vessels and specifically written to meet the domestic industry's needs, not the needs of international trading ships.

Nonetheless, I note that separate standards and regulations does not necessarily require separate acts. There are numerous definition problems and similar that result from the POTS Act, Nav ACT and National Law act all co-existing. Toyota has separate divisions for the Lexus and Corolla. However, they are still all a part of and governed under the umbrella company.

1 Act with the necessary definitions, legislation, powers to create regulations, offence provisions etc makes sense and would significantly simplify the legislative framework for vessel owners and operators. However, under this act separate standards and regulations are required in order to cater to the fundamentally different domestic and international markets and needs.

Not only does this framework allow the "product specifications" to be suited to the markets, it also ensures changes can be made to suit the domestic industry in a more rapid and responsive manner than would otherwise be required if domestic requirements were wrapped up together with international.

Question 1 - Australia's legal framework for the safety of domestic commercial vessels fit for purpose?

Australia's legal framework could certainly be improved. However, I would still categorise it as fit for purpose.

In essence the act can be summarised as requiring only four things from an operator:

1. Holding a Unique vessel identifier (vessel number);
2. Meeting the criteria to be issued a CoO;
3. Meeting the criteria to be issued a certificate of survey; and
4. Operating the vessel with an appropriate certificate of competency.

There is an argument that four things is too many and also that the law captures too many vessels. However as argued below the criteria in relation to the issue of these certificates is flexible and can be set to appropriate levels (including dropping these criteria down to recreational levels) depending on risks.

In essence these four criteria are fit for purposes and provide a huge amount of flexibility in law. The flexibility offered is discussed more in my response to question 3.

I would draw attention to the inconsistencies between the Navigation Act and National Law act that should be resolved. Definitions that do not correlate and differences in review provisions and offence provisions. These differences are confusing.

Question 2: Does the national law interact efficiently with other Commonwealth and State and Territory frameworks, particularly the Navigation Act 2012 (Navigation Act) and workplace health and safety regulations, as well as with international maritime safety obligations?

With WHS regulations

No. Wherever there is overlapping legislation it is unclear which should prevail. For example, there are WHS obligations in relation to slips, trips and falls – which are generally taken to mean a workplace must meet Australian Standards for stairways. However, marine stairways can often be designed with a higher rise and going.

In the event of a workplace accident – for example a death from falling down a stairway, it is unclear what the employee's obligation are, and workplace investigators have been known to look to the Australian Standards for the test of best practice / due diligence.

Similarly, there are overlapping responsibilities with waterways management, carriage of dangerous goods, hours of work and rest, drug use, electrical regulation etc.

These matters and others need to be made clearer so that owners, masters, passengers can understand their obligations and from where they arise.

With International Obligations

Generally, yes.

The Conventions are very clear regarding which matters an administration can determine the extent a requirement applies, or where the convention has no domestic application. The conventions need to be clear because they are adopted universally around the world and domestic industries around the world are in various levels of safety maturity. For example – the domestic fleet in parts of south east Asia could never meet international trading obligations despite these countries being signatories.

Question 3 - Is the scope of the definition of 'Domestic Commercial Vessels' appropriate to capture the types of vessels and operations that justify additional regulatory intervention under the National Law beyond existing WHS obligations?

An argument can be made that the legal framework captures to many "things" as domestic commercial vessels and that as a result there is un-due burden on some operators of lower risk vessels. However, for the most part, I find this argument fundamentally flawed.

Whilst the law captures lower risk vessels, for example small run abouts, being operated in a commercial manner. The National Law allows regulations to be made in relation to the criteria to be met (the regulatory intervention). The regulatory intervention can be "wound down" to recreational levels (registration) simply by setting the criteria for the issue of a combined certificate of survey and operation to the same as would be required in the recreational framework. NB: Generally this is issue of a unique vessel identifier and deceleration of suitability for the issue of the certificate or "registration".

Looking at an example for a small run about. The current Act requires a UVI, CoS and CoO for the vessel. On the face of it, and with the current criteria made in regulations, this appears to be overly burdensome, and it may well be argued so.

However, noting that the act allows regulations to be made which prescribe the criteria in relation to these matters and these criteria for their issue could be appropriate to the risks.

The act provides the flexibility for regulations to be made which allow issue of a single "registration" document to the owner on application. It would simply need the criteria to be set allowing this. It is also worth noting to an extent this was practiced under the national law framework in NSW whilst they were delegates for the National Regulator. A single combined certificate of operation/survey was issued so there is a precedent for doing so.

Under the current framework, small run abouts have been exempt from the requirement of the Act to hold these certificates. However, there is another way to skin this cat without creating the additional complexity resulting from an exemption framework. The ACT provides the flexibility for these vessels to be treated appropriately, without exemption. Simply, the criteria for the issue of the documents mentioned above needs to be appropriate to the risks of the particular vessel.

Nonetheless, some "things" genuinely should not be considered vessels and the current definition is particularly inflexible. Almost anything that could navigate at sea is taken to be a vessel, even if the intent is not to use it so. Perhaps this stems from the use of "capable" in the definition.

Risks of carving out some vessels based on size

As above, I would argue that the appropriate setting for the law is to get the regulatory criteria correct to ensure they are not unduly burdened.

The risks with carving some types / sizes of vessels out entirely are that safety risks do not correlate to with size or type of vessel and by carving some types / sizes out it is likely perverse outcomes may occur.

If carved out based on a length limit:

Length limits were widely used under the USL code and in state regulatory practices before the advent of the National Standards for Commercial Vessels and National Law. They are easily understood, but not risk based.

A 12m long vessel may be very simple, or very complex. The length in and of itself is not a good indicator of risks.

In setting length limits a regulator creates perverse incentive for complex and risky operations to be undertaken in smaller vessels than would otherwise be selected. An operator, looking to maximise economic benefit, will deliberately choose to build a smaller vessel than would otherwise want to undertake a function in order to avoid regulatory impost.

The result of this perverse outcome can be seen in the experiments conducted by Queensland with the less than 10m fishing fleet. This fleet was exempted from regulation under the state system. The result is all kinds of home-built vessels that are as wide as they are long with far too much equipment onboard them, poor living conditions for the Australian crew onboard and a history of high accident rates.

If type / use is considered as a factor

Unlike cars vessels start life as one thing and often end life as something else entirely. It is unlikely you will ever see a sedan passenger car ending its life as a work utility. However, this practice is entirely common in the marine industry.

Vessels start their life fishing. Then when a fishing season gets tough, they move into work to support oil and gas. Years, even decades later, vessels are working as passenger charter on the swan river. This is a common scenario for a western Australian cray fishing vessel.

The problem with carving vessels out of the commercial framework based on use, is that it limits the flexibility of the vessels use. Fishing or leisure use may be considered low risk and carved out. However when the operator then finds they are unable to use there vessel for any other commercial use it is frustrating and to be frank – illogical. Are fisher people's lives worth less than oil and gas workers?

If operational area is considered as a factor

When operational area is used as a carve out it also creates perverse outcomes. Many vessels do not stay in the same operational area over their life and operators are confused by regulatory frameworks where their obligations change.

The national Law requires minor tweaks to the definition, so it does not capture so many things that are clearly not vessels. For example, a bathtub is "capable of being used, in navigation by water etc." doesn't mean the National Law should be regulating all the bathtubs….

Question 4: Should the framework ensure the Navigation Act provides the default standards for commercial vessels?

As noted in the executive summary, The Navigation act and regulations that set criteria under it is a product developed for international market, not the Australian Domestic Market. It is not suited to Australian maritime needs and moreover is significantly more burdensome, confusing and complex than the National Law.

Comparison of complexity Nav Act and National Law

Navigation Act	**National Law Act**
Marine Order 1	National Law Regulations
Marine Order 4	Marine Order 501
Marine Order 4	Marine Order 502
Marine Order 11	Marine Order 503
Marine Order 12	Marine Order 504
Marine Order 15	Marine Order 505
Marine Order 16	Marine Order 507
Marine Order 17	NSCV Part B
Marine Order 18	NSCV Part C (15 chapters)
Marine Order 19	NSCV Part F1 (3 chapters)
Marine Order 21	NSCV Part F2
Marine Order 25	NSCV Part G
Marine Order 27	Colregs
Marine Order 28	Load Line Convention
Marine Order 30	MARPOL
Marine Order 32	SAGM 1
Marine Order 34	SAGM 2
Marine Order 35	Standing Exemptions (34)
Marine Order 41	
Marine Order 42	
Marine Order 43	
Marine Order 44	
Marine Order 47	
Marine Order 49	
Marine Order 50	
Marine Order 51	
Marine Order 52	
Marine Order 53	
Marine Order 54	
Marine Order 57	
Marine Order 58	
Marine Order 63	
Marine Order 64	
Marine Order 70	
Marine Order 71	
Marine Order 72	
Marine Order 73	
Marine Order 74	
Marine Order 76	
Marine Order 91	

Marine Order 93	
Marine Order 94	
Marine Order 95	
Marine Order 96	
Marine Order 97	
Marine Order 98	
AFS Convention	
BWM Convention	
Colregs	
Load Line Convention	
MARPOL Convention	
FSV Convention	
SOLAS Convention (17 chapters)	
STCW convention	
Tonnage Convention	
BC Code	
BLU Code	
BMWS Code	
CSS Code	
CTU Code	
DS Code	
DSC Code	
ESP Code	
FSS Code	
FTP Code	
Grain Code	
HSC Code (19 chapters and 12 annex's)	
IBC code	
IGC code	
IGF code	
IMSBC code	
INF code	
IS Code	
ISM Code	
ISPS Code	
LSA Code	
MODU Code	
Code for noise levels on board ships	
NOX technical Code	
OSV Code	
OSV chemical code	
Polar code	
RO Code	
SCV code	
SPS code	
STCW code	
Timber code	
TDC Code	
IMO Resolutions (Approx. 226 resolutions)	
MEPC Resolutions (Approx. 235 resolutions)	

MSC Resolutions (I gave up counting but well over 200)	
IMO Circulars (too many to count, well over 1,000)	
Classification society standards (7 recognised organisations with a large range of standards)	

I would argue that the National Law should set the default standards for all vessels engaged within domestic waters regardless of size, because doing otherwise adds un-necessary complexity. Moreover, policy development framework for international regulated vessels is not suited to domestic needs. Australia cannot direct IMO and its member states, plus consensus building and policy development though this framework is far slower than required to respond to domestic needs.

Moving the many thousand strong domestic fleet to standards set though the Navigation act would of itself create a new grandfathering problem OR place undue regulatory impost on vessels that are operating safely under the existing National Law standards.

I would further argue that the duplication of our domestic requirements within the Navigation act is un-necessary. A better outcome would be migrating the small number of domestic operational vessels, currently regulated under the Navigation act, over to the National Law requirements. Whilst this has some regulatory impost, the number of them is orders of magnitude smaller than the domestic fleet. This migration would reduce complexity and resolve existing issue provided a clear pathway is provided for those vessels that require occasional international voyages under permits or exemptions for maintenance and slipping.

Question 5: Is the definition of an “Owner” of a vessel in the National Law sufficiently clear and understood?

As previously noted, whilst sperate regulations should be provided to cater for the specific Australian Market, a head power / act continuing all definitions etc would simplify the framework. There is no reason for two separate definitions of Owner to exist and whilst both a clear the existence of two confuses matters.

Question 6: Would expanding the Australian Transport Safety Bureau’s role to include domestic commercial vessel safety support substantially improved safety outcomes for industry, as well as regulators and policy makers?

I believe the ATSB should be a greater role in no-fault investigation for the domestic fleet and that this involvement would improve safety outcomes for industry, regulators and policy makers.

Question 7: Would removing, in whole or in part, current grandfathering provisions substantially improve safety outcomes? If so, how could industry be supported in making that transition?

There is a tension in relation to grandfathering. On the one hand these vessels are less safe, on the other hand they can be considered more economically valuable as the ongoing maintenance costs can be significantly less.

Operators with surveyed vessels are required to build vessels to commercial standards and then maintain them. These costs are required to be recovered in operations, yet they face a market where they compete with operators currently who

1. Do not have to maintain their vessels to a known standard; and
2. Do not have to have their vessels inspected on an ongoing basis.

This is a perverse incentive preventing owners making vessel's safer for the public and those work on them.

As a naval architect I am qualified and experienced to provide an opinion of the importance of design standards and compliance checks. It is my opinion that some elements of regulations required to build a new commercial vessel is an un-necessary cost to grandfathered vessel operators.

For example, there is no value in an existing vessel that has operated a vessel for a number of years having a design appraisal conducted to determine the suitability of their vessel's structure. The proof is in the pudding so to say.

However, other elements of the survey framework are vital for safety. Such as stability, fire and electrocution protection.

The current National Law has a framework for moving grandfathered vessels into survey (referred to as transitional). It permits an owner to upgrade to survey by choice or when they modify a vessel.

It is confusing to read and poorly communicated. Nonetheless in essence it requires the following for a vessel to enter survey (doing the same thing a vessel it currently does):

1. A stability assessment to show the vessel has adequate stability;
2. A contemporary fixed fire system to put out any fires in the engine room;
3. Residual current devices to prevent electrocution.
4. A condition survey for entry to make sure the vessel is well maintained; and
5. Ongoing surveys to ensure the vessel continues to be maintained.

In addition, a vessel that is modified or has changes made, is required to have those new elements designed and constructed to comply contemporary standards.

I believe that on the face of it, this framework is reasonable, and addresses genuine risks.

The problem appears to be that many grandfathered vessels do not have adequate stability to pass even older standards such as the USL code without modification and the modifications to make the vessel comply either reduce the vessels functionality (for example reduce cargo carrying/ fishing capacity) or have a cost associated with the work to ensure it is carried out to contemporary standards.

Alternate standards could be considered, for example the MCA freeboard mark for fishing vessels. However, these criteria are so operationally restrictive that I believe they are un-suitable for Australian coastal waters (the UK has a lot of protected and inland waters). For example a typical 15m long fishing vessel would be limited to operations in less than 1.2m wave height when operating at its loaded freeboard with this criteria. Nb. This is considered a "slight" wave height by the BOM and there is more than a 50% chance of exceedance for this height around NSW and Brisbane i.e more than half the time vessels wouldn't be able to operate at all

See https://www.coastalconference.com/2010/papers2010/Tom%20Shand%20full%20paper.pdf

It is my belief that the cost to make a vessel stable is the single largest barrier to the grandfathered fleet. Moreover, I believe that if industry were financially supported to assist with the costs of obtaining a current and valid stability assessment, the grandfathered fleet would, in the majority, easily move into survey through the transitional framework or something like it.

Question 8: Does the current framework provide clear and simple standards for operators to meet their safety requirements? If not, how could it be improved?

See question 3

Question 9: Does the current framework provide an effective and practical range of compliance powers and enforcement tools for AMSA?

No comment.

Question 10: Are there specific safety initiatives that would substantially improve safety outcomes?

Adoption and acceptance of emerging technologies. EG use of gyroscopes and expert computer systems for live roll period assessments onboard vessels.

Question 11: What can be done to improve safety incident reporting both for safety and Workplace Health and Safety purposes?

Add legislative mechanism that encourage insurers to require reporting. For example a criteria so that "certificates not in force" or similar if incident is not reported.

Then work with insurers so that they are aware of this criterion. As a result, insurers will check to make sure incident reported as a part of pay out criteria. i.e. they are not required to pay out or may be able to limit pay out if incidents are not reported.