

EDITORS' PICK | Oct 11, 2020, 09:00pm EDT

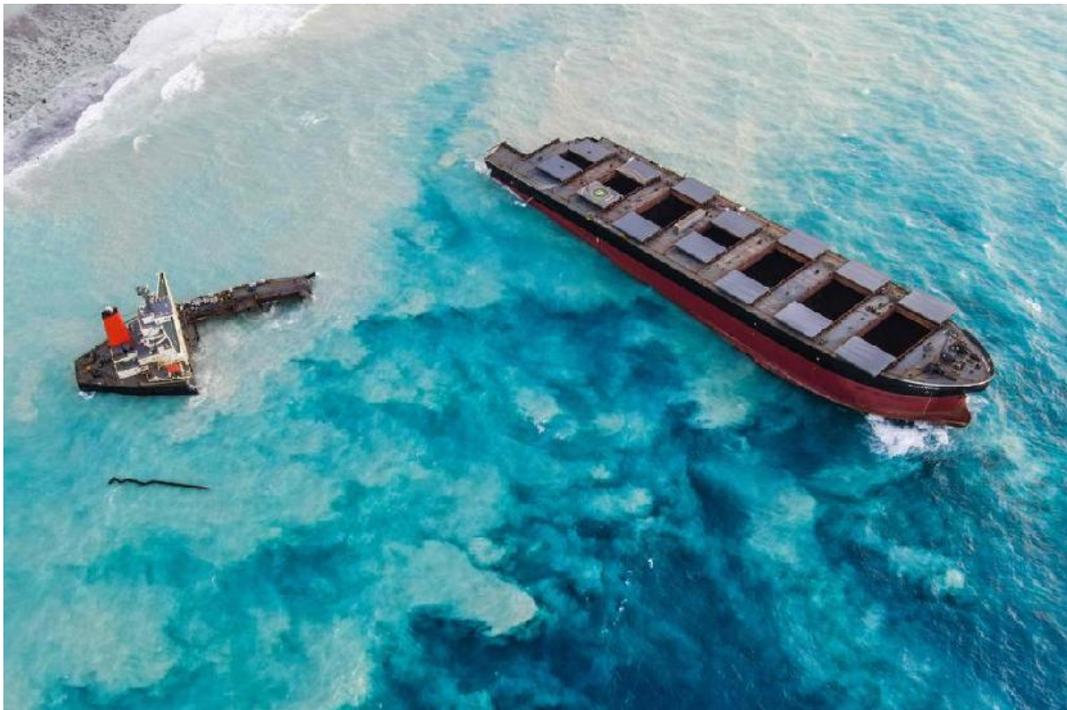
Wakashio's Skeleton Crew: Mauritius Oil Spill Ship Was 17% Understaffed



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[Manufacturing](#)

I cover innovation within the green/blue industrial revolution.



17 Aug 2020: An aerial view taken in Mauritius shows the MV Wakashio capesize bulk carrier in two ... [+] AFP VIA GETTY IMAGES

A damning new report from the [International Transport Workers' Federation](#) (ITF) is shedding more new light on the circumstances surrounding the *Wakashio* disaster.

It turns out that the *Wakashio* only had [20 crew on board](#).

For vessels of this class (the *Wakashio* was one of the largest ships in the sea, a Capesize class, meaning it is too large to pass through the Panama and Suez Canals), the crew size should have been 24.

This is because the *Wakashio* was 13 years old. Crew sizes are larger for older ships as the [maintenance workload](#) starts to increase. Capesize Bulk Carriers under 10 years are allowed 20 crew, between 10 and 20 years old, 24 crew and above 20 years old, require 28 crew.



Ship engine rooms require increasing amounts of maintenance the older they get, especially for ... [+] GETTY

MORE FOR YOU

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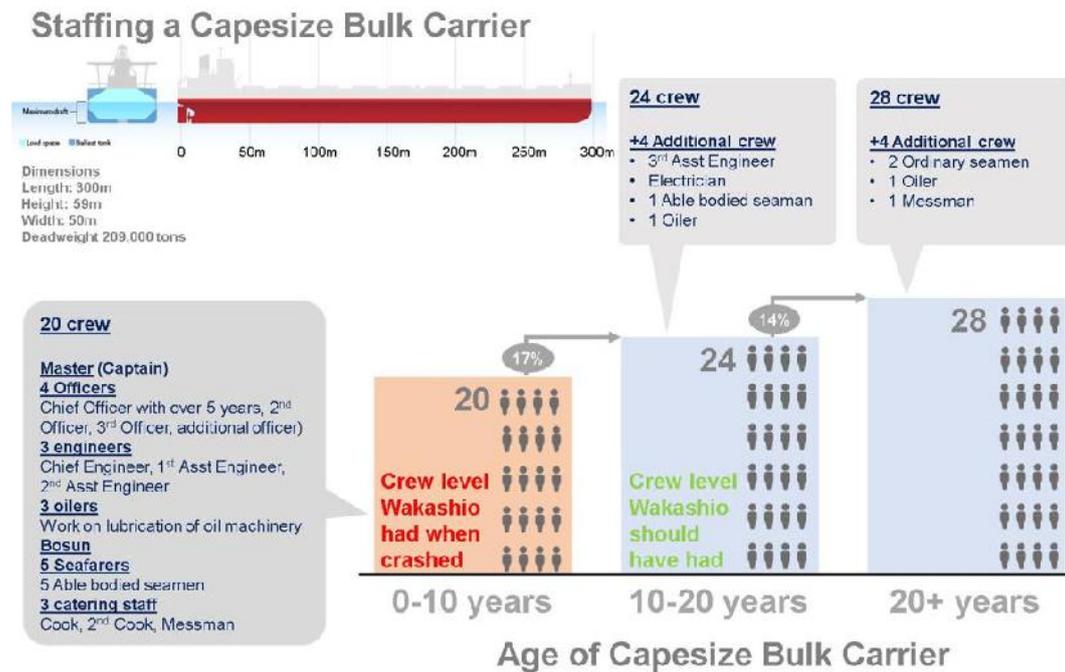
New Oil Spill In Mauritius Near To Bird Sanctuary Linked To Sunken Japanese Ship *Wakashio*

UN Shipping Regulator Breaks Climate Pledge. What Next For Global Shipping?

The roles of these crew are clearly specified to ensure ships have the right mix of suitably qualified crew on board.

To make matters worse, [three of the 20](#) skeleton crew on board *Wakashio* were on [extended contracts](#) when the vessel grounded off Mauritius on July 25, two of whom had been on board for [over 12 months](#). This would have put the ship owner and those responsible for crewing the vessel in breach of several international labor and ship manning regulations.

Captain Nandeshwar had his six-month contract extended by three months on May 1, a spokesperson for Japan-based owners Nagashiki Shipping had confirmed to Lloyd's List on August 17.



Source: Martin Stopford, Maritime Economics 3rd Ed (2009)

There are clear laws and guidelines for how a Capesize Bulk Carrier should be crewed, with strict ...
 [+]
 MARTIN STOPFORD, MARITIME ECONOMICS 3RD EDITION (2009)

A ship is required to have a **Safe Manning Certificate** on board. This would have specified that a crew of 24 would be needed for a 13 year old Capesize Bulk Carrier, like the *Wakashio*.

The only way to travel in breach of this Safe Manning Certificate, is with a **'Certificate of Emergency Exception.'**

Captain John Konrad explains what this means. He is licensed to captain the world's largest ships, including Capesize Bulk Carriers, and now runs leading maritime news site, **gCaptain**. "If the crew number goes below that required by the minimum safe manning certificate



The Minimum Safe Manning Document (image above) is a strictly regulated document by the UN Shipping ... [+]
 UN INTERNATIONAL MARITIME ORGANIZATION

then the ship owner can ask class for an ‘[Emergency Exemption.](#)’
Otherwise the ship is unable to leave Port unless this has been granted.”

So the only way for the *Wakashio* to have been allowed to leave the Port of Singapore (its last port of call), would have been if an ‘[Emergency Exemption](#)’ had been granted by the ship’s inspectors. As the *Wakashio* is registered in Panama, the ship inspectors would have been [Class NK](#), based in Japan.

So where are the certificates of the Safe Manning levels and the ‘[Emergency Exception](#)’ to have allowed the *Wakashio* to travel with 17% fewer crew? How long had the *Wakashio* been allowed to operate with almost 1 in 5 fewer crew than was approved?



The Japan or China to Brazil journey is one of the longest in the world, and would have taken three ... [+] MAP: KORY MELBY

The final voyage of the *Wakashio* was going to be longer than circumventing the entire planet. The *Wakashio* had been sailing from China to Brazil to pick up a cargo of heavy iron ore and bring it back to the steel mills of Japan and China. This is a journey of at least 15,000 miles, making it a 30,000 mile round trip (without any crew change given Covid-19 restrictions). It is a journey that takes between 40 and 45 days to complete each way.

For comparison with the *Wakashio's* 30,000 mile round trip, the circumference of the Earth is less than 25,000 miles. The Japan-Brazil roundtrip was as long as it gets in terms of ship voyages, a distance greater in length than the voyages of [Vasco de Gama](#).

Five important questions



Mitsui OSK Lines President and CEO Junichiro Ikeda attends a press conference on the *Wakashio* at the ... [+] AFP VIA GETTY IMAGES

This now raises some important questions for the incident investigation, that the international community and media will be particularly interested in:

1. Was there a 'Safe Manning Certification' on board the *Wakashio*, and what did it say, given the requirements that the *Wakashio* had to be operated with 24 crew as a 13-year-old Capsize Bulk Carrier?

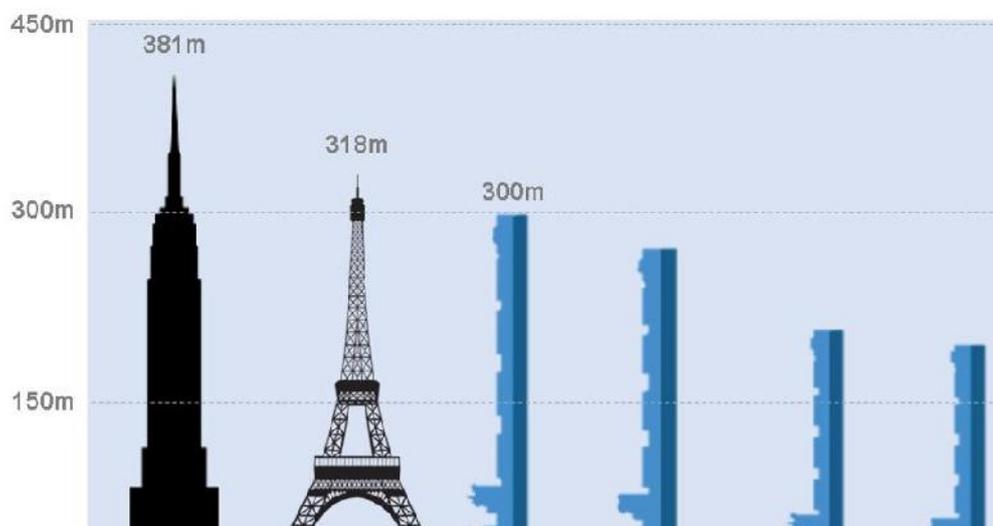
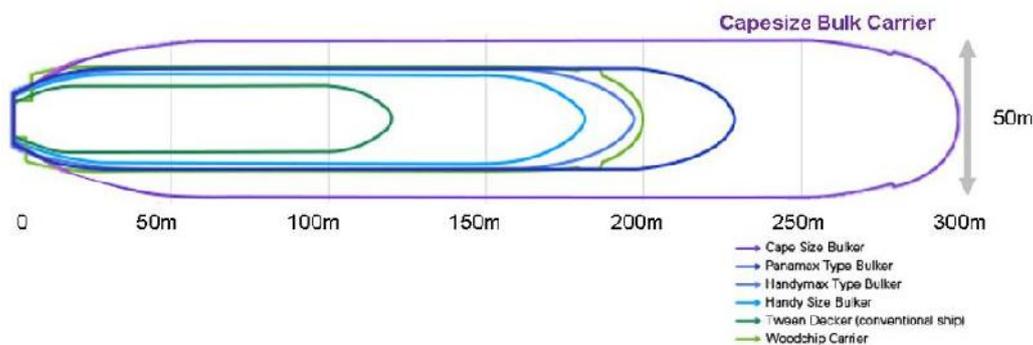
2. Was there a 'Certificate of Exception' to the Safe Manning Certificate, to allow the vessel to travel with a crew of 20? If so, when was this certificate issued?

3. Who initially requested the unsafe manning levels, and for what duration?

4. Given the pressures of fewer crew on board, it is critical to have proper documentation for watch duty and shifts, to ensure crew are not fatigued. What was the quality of the recordkeeping like on the Wakashio to ensure such important documents vital to shift and watch safety, were being adequately completed and monitored by the officers on board?

5. What would the additional pressure of a **faulty ship engine** have done to a skeleton and extended crew operating one of the largest ships in the world - a Capesize Bulk Carrier - on one of the longest journeys in the world – a Japan-Brazil roundtrip - for at least three months, given Covid-19?

Size of a Capesize Bulk Carrier





Capesize Bulk Carriers are almost as tall as the Eiffel Tower and two thirds the height of the ... [+]

GCAPTAIN

A series of cascading failures explain the Wakashio disaster

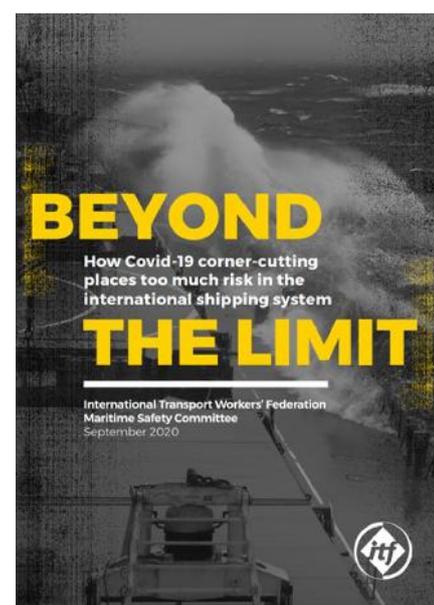
The story of the *Wakashio* is starting to paint a picture of a cascading set of failures that had been warned about for months in advance:

- An understaffed and overworked skeleton crew
- Placed on an improperly kept vessel
- With a potentially faulty engine that would have impaired the crew's ability to steer or slow down
- Just add in the pressures to the crew of extended duties due to Covid-19, and this was a disaster waiting to happen.

Unheeded warnings

However, it was not as if the maritime community had no warning.

A damning report was produced by the leading transportation union, [The International Transport Workers' Federation \(ITF\)](#). It was presented at a senior [UN panel on the topic of Covid-19 and Maritime Crew](#), which involved various UN leaders, including the head of the



Report from International Transport Workers Federation highlighting the risk

UN shipping regulator, the IMO's,
Kitack Lim.

that global shipping ... [+]

INTERNATIONAL TRANSPORT WORKERS
FEDERATION

The report, called *Beyond the Limit*, specifically highlights concerns with understaffed ships during Covid-19, especially:

- Rubber-stamping unsafe manning levels
- Unsafe manning Certificate extensions
- Remote inspections

The report had claimed that ship owners were putting profit above safety.



6 Aug 2020: The extent of the oil spill seen by air with Wakashio at the top of the image. The ... [+]
AFP VIA GETTY IMAGES

Now the Indian Ocean island of Mauritius is paying the price as the oil spill triggered an [ecological crisis](#) along 10% of its entire previously pristine coastline, and [125 square kilometers](#) of corals remain off limits to tourists, fishermen and tour boat operators.

The ITF have mentioned they have been [dissatisfied with progress](#) on the unsafe staffing issue, and have since had to engage the UN Secretary General, Antonio Guterres in order to make more progress.

This highlights the [ineffectiveness of the current governance system](#) around global shipping to take the right action on social or environmental issues, as well as the apathy and disregard with ship owners have viewed crew safety as a priority.

Ship safety backsliding during Covid-19

Report co-author and chair of the Maritime Safety Committee, Odd Rune Malterud, says the report shows an unsustainable trend by industry players, including flag states like Panama and Marshall Islands, to deprioritize ship safety out of expedience rather than necessity.

"Some industry players are pushing for exemptions from, or the outright suspension of, important international rules. These rules were introduced to protect seafarers' safety, lives, and the marine environment over many decades. They are the result of learning from incidents in the past: be it an accident; a drowning; a spill; a grounding; or a death."

In the video above, the Marshall Island flagged [Stella Banner](#) was scuttled off the coast of Brazil in June 2020, attracting significant [criticism](#) for the amount of pollution unleashed into the ocean environment. It had been chartered by Brazil's mining giant and one of the biggest iron ore producers in the world, [Vale](#). [Vale](#) has faced significant safety and sustainability issues and the [former CEO](#) is facing [homicide charges](#) after a [dam](#) owned by the mining company collapsed, engulfing a [town](#).

The *Wakashio* had been heading to Brazil to pick up a shipment of Iron Ore.

Shipping is a 'ticking timebomb' toward an environmental catastrophe



Workers collect leaked oil at the beach in Riviere des Creoles, next to Blue Bay Marine Park, ... [+] AFP VIA GETTY IMAGES

ITF's Malterud said the report was about putting a line in the sand over the industry's rapid backslide on safety and seafarers' rights.

"Enough is enough. It is our obligation as seafarers' representatives to raise the warning because what we are

witnessing right now causes us extreme worry. We cannot in good conscience be complacent and allow seafarers' safety and security to be put at risk. The shipping industry is now a ticking timebomb towards an environmental catastrophe."

In the case of Mauritius, it looks like that timebomb has been set off in a very dramatic fashion.

The oil spill could not have happened in a worse area, hitting a nature reserve that was housing some of the [world's most endangered species](#) that were being prepared for release back into Mauritius' national parks.

A fatigued workforce at sea



A [survey](#) by the ITF conducted in September 2020, showed that [73.3%](#) of seafarers were worried about 'Being tired and fatigued', while [60.1%](#) said it was more

Crew in Lisbon wearing masks. Work on large vessels is often very physical, so rest is important to ... [+] CORBIS VIA GETTY IMAGES

likely than not that they or their crewmates would be 'involved in an accident that could harm

human life, property or the marine environment due to tiredness or fatigue while on board'.

For 60% of front line workers in an industry to identify a risk that could cause serious harm to the marine environment, and no significant action to be taken, is a serious indictment of the industry.

"This is not just about crew change, but that is part of the story," ITF Seafarers and Inland Navigation Section Coordinator, Fabrizio Barcellona, said. "Government restrictions on borders, travel and transit have made it difficult to recruit seafarers and some in the industry are responding by dumping more and more work on the tired and fatigued workforce who remain on ships"

Flag states making a mockery of their role as manning regulators



2 Oct 2020: Izmir, Turkey. Five luxury cruise ships are seen being broken down for scrap metal at ... [+] GETTY IMAGES

"Minimum Safe Manning levels should prevent that from happening, but flag states all over the world are now making a mockery of their role as manning level regulator. We have ship owners proposing manning numbers for their ships that are

well-below what would have been considered safe pre-pandemic, and flag states rubber-stamping these proposals through exemptions."

"Inadequate manning levels spread the same workload across a smaller number of seafarers. The result is over-worked, stressed seafarers onboard who are not physically or mentally well-rested enough to discharge their duties safely. These seafarers worry day and night about the threat of accidents occurring. Seafarers cannot be blamed for those accidents which result from the impossible situation they are being put in."

Barcellona said the ITF and its affiliated unions are calling for flag states and port states to get back to enforcing the rules, most of which they created through the International Maritime Organisation.

"We understood the need for flexibility early on in this pandemic. But it has been six months now, and we have reached the safe limit of exemptions, extensions and all-too-convenient interpretations of these life-saving rules. If action is not taken, there will loss of human life and irreparable damage to marine ecosystems," said Barcellona.

Pushing the limits of safe hours of work and rest



5 Jun 2020: Crew members wearing face masks as a precaution against the spread of corona virus, ... [+] SOPA IMAGES/LIGHTROCKET VIA GETTY IMAGES

In the [Beyond the Limit report](#), the ITF goes on to highlight that ships are complicated, highly technical pieces of machinery that require the continuous cooperation of many skilled seafarers across all hours of a day to ensure their continued safe

operation and navigation. A ship's safe operation requires its workforce to be physically capable and mentally present.

The report [says](#), "We are concerned that the present crisis is being exploited by employers and the industry more broadly to steal time from seafarers and shift an increasing number of hours from rest to work. We believe this is happening as companies deliberately man their ships with inadequate crew numbers, and then demand from the remaining crew more time working – mostly unpaid."

Inaccurate crew logs are a major legal issue



31 May 2020: More than 20 cruise ships are anchored at Manila Bay waiting for disembarkation ... [+] AFP
VIA GETTY IMAGES

With reduced crew numbers, everyone onboard is forced to work longer hours. Seafarers are pushed to undertake tasks at all hours of the day and night beyond their ordinary duties, increasing pressure on the seafarers and their stress levels.

This in turn negatively affects their health and wellbeing and is a risk to the safety and security of the crew, the ship and the environment.

Worryingly, this practice often does not show in the ship's logs, and in turn, regulators are turning a 'blind eye' to the real situation onboard.

The World Maritime University's upcoming report on the laws on rest and work hours for seafarers highlight the seriousness of inaccurate logs work and rest logs.

"Accurate recording of seafarers' work/rest hours is not only a legal



Maintaining accurate records on a ship's logbook is a critical part of the crew's duties, and the ... [+] AFP VIA
GETTY IMAGES

requirement under both the MLC, 2006 and the STCW, 1978, but also a compliance monitoring tool. When records are regularly or systematically adjusted, there is no feedback on the work as it is.

Therefore, the management of the company as well as regulators do not have accurate input of work processes. It affects the understanding of the effectiveness of fatigue-mitigating strategies, thereby limiting improvement attempts. It also undermines regulatory enforcement actions."

Serious legal implications



The Wakashio Oil spill attracted national protests of over 100,000 on the streets of the capital of ... [+] L'EXPRESS MAURICE/AFP VIA GETTY IMAGES

The low manning levels on the *Wakashio* could now be seen as being a serious legal issue.

Asking each crew member to take on the workload of almost 20% additional duties (think of this as an extra day during a Monday-Friday office week), would be

particularly stressful.

To do this for months on end, while working, living, sleeping, eating in small cabin quarters, with [no support from family members](#) or loved ones, can create [intolerable conditions](#).

This is not just a welfare issue but a legal one. There are several well defined laws that are very specific on the work and rest logs, the manning levels, the protocols for exemptions, and the time duration of these. A careful examination of these records will be needed for the incident investigation.

Breaches of International Maritime Safety Law



The London Headquarters of the UN's International Maritime Organization that is responsible for ... [+] IMO

There are laws, regulations and tools that ensure Governments and companies are acting responsibly toward safe manning and the safety of ships and seafarers. In particular, several international laws that cover:

Minimum safe staffing levels

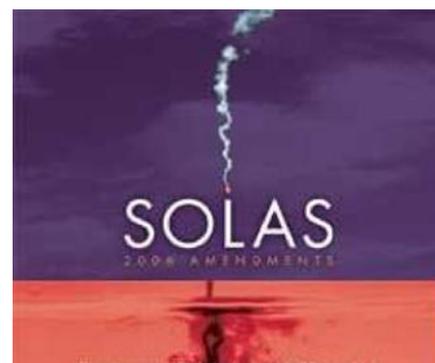
Qualifications of crew on board

- for duties they are performing
- Watchkeeping protocols
- Certification on ability to use Electronic Chart Display (ECDIS) including reliability of equipment
- Recordkeeping protocols
- Maritime safety protocols

Here are some of the specific international laws that could apply to safe staffing levels on the *Wakashio* at the time of the incident.

1. International Convention for the Safety of Life at Sea (SOLAS)

The International Convention for Safety of Life at Sea (**SOLAS**) is one of the most foundational documents for ship safety. It sets out the clear international laws that all ship owners, operators, crew training



colleges and crew must follow when on board a vessel.

164 countries have signed up to this international law and it covers over [99% of all vessels](#) in the world.

One of its most important chapters covers the [Safety of Navigation](#), including safe levels of crew on board, which is most relevant for the *Wakashio* incident.

Other relevant sections include:

- SOLAS – Safety of Navigation - [Ch. V: Regulation 14 on Ships' manning](#)
- [SOLAS Ch. XI](#) Management for the safe operation of ships, but also an important section on the Investigation on Marine Casualties and Incidents (Regulation 6), with clear protocols to follow and qualifications of the incident investigators. This is important to address the systematic causes of risks, as highlighted in the '[The Tankship Tromedy](#).'
- IMO Assembly Resolution 1047(27) the [Principles of Minimum Safe Manning](#) which also talks about the importance of effective enforcement.

2. Watchkeeping and Electronic Map Training (STCW)

One of the concerns about the *Wakashio* incident has been what happened with Watchkeeping and the ability to read and use



The SOLAS rules about Safety of Life at Sea is a critical set of shipping safety laws INTERNATIONAL MARITIME ORGANIZATION



Electronic Charts that were on the vessel.

Several important international laws govern this under the **International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW)** that is regulated under the UN's IMO.



The ECDIS digital navigational charting system is a critical navigation tool in modern ships. LOS ANGELES TIMES VIA GETTY IMAGES

This law was passed in 1978, with **regular updates** that all ship operators and owners must follow. There are very strict protocols about watchkeeping and training for crew on watch.

In particular:

- **Certification for Electronic Chart Display and Information System (ECDIS).** The ECDIS competencies are contained [Table A-II/1](#) and [Table A-II/2](#) of the [STCW Code](#).
- Evidence of ECDIS training is **mandatory** for service on ships fitted with ECDIS, as the *Wakashio* was.

In terms of **Watchkeeping standards**, there are very clear guidelines that all ships should follow:

- [STCW Reg. VIII/2](#) Watchkeeping arrangements and principles to be observed

Recordkeeping is a critical document for vessel management, and there are very **strict laws**



around how the crew's rest and work hours must be [tracked](#).



Certificates and Record keeping are critical parts of ship safety under current regulations MARITIME CYPRUS

Any failure to do this or [falsifying of logs](#) would be a very serious breach of international law, with severe consequences. According to the ITF, "All crewmembers should follow the strict record of hours, keep accurate records and do not sign inaccurate or inappropriate declarations from their company onshore or while on the ship."

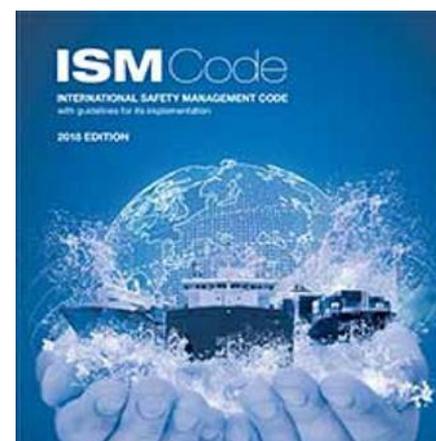
The **responsibilities of companies** are clearly laid out in the international laws on watchkeeping, training and certification. This would have very significant implications for vessels that were under staffed, especially for such a long voyage to Brazil and back again to Asia.

In particular:

- STCW Reg. I/14 [Responsibilities of companies](#)
- STCW Reg. I/2 [Certificates and endorsements](#)
- STCW Reg. VIII/1 [Fitness for duty](#)
- [STCW Ch.VI](#) Emergency, occupational safety, security, medical care and survival functions

3. International Safety Management Code (ISM)

The purpose of the [International Safety Management \(ISM\) Code](#) is to provide an international standard for the safe management and operation of ships and for pollution prevention.



According to the [UN's IMO](#), the Code's origins go back to the late 1980s, when there was mounting concern about poor management standards in shipping.

Investigations into accidents revealed major errors on the part of management, and in 1987 the IMO Assembly adopted resolution [A.596\(15\)](#), which called upon the Maritime Safety Committee to develop guidelines concerning shore-based management to ensure the safe operation of ships.

The Code establishes safety-management objectives and requires a **Safety Management System (SMS)** to be established by "[the Company](#)", which is defined as the owner or any other organization or person, such as the manager or bareboat charterer, who has assumed responsibility for operating the ship and who, on assuming such responsibility, has agreed to take over all duties and responsibility imposed by the Code.

- ISM Code [Ch 6 Resources and Personnel](#)

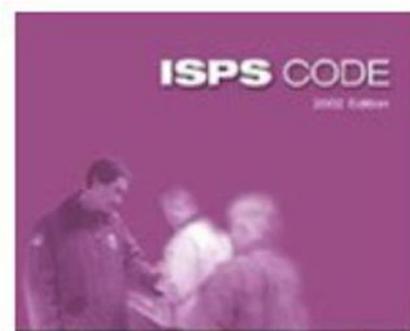
There are very serious penalties for the non conformity with the ISM Code as agreed at the [IMO](#) under [MSC/Circ.1059](#) [MEPC/Circ.401](#), and vessels can be prevented from sailing with major deficiencies.

4. The International Ship and Port Facility Security Code (ISPS Code)

The [ISPS Code](#) is an essential maritime regulation for the safety and security of ships, ports, cargo and crew. There are several clear guidelines on training, staffing

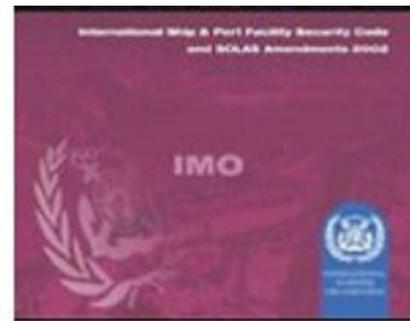


The International Safety Management Code are critical to the safe operations of modern ships INTERNATIONAL MARITIME ORGANIZATION



levels and logging rest and work duties in these international laws.

The ISPS Code was designed as a measure to fight terrorism, and so includes several important clauses about the safe manning of vessels. Given the Indian Ocean was the main hotbed of maritime terrorism activity over the past ten years, a breach of these laws by vessels [travelling through the Indian Ocean](#) would be particularly serious for maritime safety.



The ISPS Ship Security Code also covers critical laws around safe manning of vessels, had there have ...

[+] INTERNATIONAL MARITIME ORGANIZATION

According to Anish Wankhede of Marine Insight, "Before the ISPS code, the SOLAS primary focus was the [safety of the ship at sea](#). As security and safety are entirely different topics, new amendments were made in SOLAS and the Chapter XI, which contained measures to enhance maritime safety, by renaming to Chapter XI-1 and a new Chapter XI-2 was added with additional focus on maritime security."

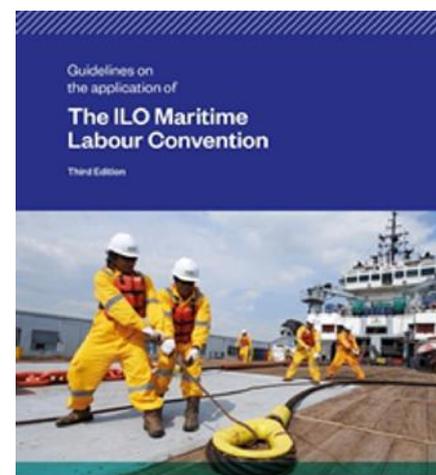
There are also obligations of the company listed under:

- [ISPS Code Part A-6](#) Obligations of the Company

5. ILO's Maritime Labor Convention (MLC)

The UN's International Labor Organization has a specific set of laws governing safe manning levels on ships, called the [Maritime Labor Convention](#) (MLC).

They call for each country where a vessel is flagged (in the *Wakashio's*



case, Panama, although the vessel was built, owned and operated by major Japanese companies), should "have a sufficient number of seafarers employed on board to ensure that ships are operated safely, efficiently and with due regard to security under all conditions, taking into account concerns about seafarer fatigue and the particular nature and conditions of the voyage."



The importance of implementation of the ILO's Maritime Labor Convention is well understood by ship ... [+]

INTERNATIONAL CHAMBER OF SHIPPING

The MLC convention specifically mentions four regulations that may be of particular interest to incident investigators:

- MLC 2006, as amended [Regulation 2.7 - Manning levels](#) deals with Seafarer Manning Levels.
- MLC 2006, as amended [Regulation 2.3 - Hours of work and hours of rest](#)
- MLC 2006, as amended [Regulation 2.4 Entitlement to leave](#)
- MLC 2006, as amended [Regulation 2.8 Career and skill development and opportunities for seafarers' employment](#). This is relevant as there will be questions on the obligations and quality of training that were provided and certified to the crew before they were allowed onto the *Wakashio*.

6. Crew Management Agreements

The *Wakashio* was being run under a [Crew Management Agreement](#) signed with [Anglo-Eastern](#), one of the largest crew management providers covering 27,000 seafarers and almost 900 ships in the world.

BIMCO		CREWMAN A STANDARD CREW MANAGEMENT AGREEMENT ECGT PLUS FEE	
1. Date of Agreement		9. Crew Manager (State name, place of registered office and law of registry) (C1, 3)	10. Lay up or extensive repairs (C1, 7.4)
2. Charter (State name, place of registered office and law of registry) (C1, 3)		10. Lay up or extensive repairs in respect of which revision of fee and re-assigning to be agreed	11. Law and Arbitration (State 13.1, 13.2 or 13.3 of C1, 13, as agreed; if 13.3 agreed place of arbitration (C1) for charter) (C1, 13)
3. Name		11. Law and Arbitration (State 13.1, 13.2 or 13.3 of C1, 13, as agreed; if 13.3 agreed place of arbitration (C1) for charter) (C1, 13)	12. Notices (State postal and cable address, telex and fax number service of notice and communication to the Charterer) (C1, 20)
4. Place of registered office		12. Notices (State postal and cable address, telex and fax number service of notice and communication to the Crew Manager) (C1, 20)	
5. Law of registry			
6. Day and year of commencement of Agreement (C1, 3, 7.2)(A, B and 37)			
7. Accounting Services (State "Yes" or "No" as agreed) (C1, 3.2)			
8. Insurance arrangements (State whether (a), (b) or (c) of C1, 6.8(a))			
9. Crew Management fee (State whether (a) or (b) of C1, 7.1)			
10. Termination (State number of months free Crew Manager Costs payable) (C1, 18.4)			

It is mutually agreed between the parties mentioned in Row 2 hereinafter called "the Charterer" and the party mentioned in Row

Providing training and certifying crew are key responsibilities of Crew Management Organizations, ... [+]
OBMG

are laid out in several standard agreements, such as by [BIMCO](#), headquartered close to [Copenhagen in Denmark](#), and

which is the largest representative of shipowners, covering [65% of global shipping](#) with members in more than 120 countries.

As part of their standard crewman agreements, they identify a few areas directly relevant to the safe staffing of Capesize Bulk Carriers. In Section 3, for example, the [standard crew management agreement](#) states that "The Crew Managers shall provide suitably qualified Crew for the Vessel as required by the Owners in accordance with the [STCW 95 requirements](#) provision of which includes:

- Selecting and engaging the vessel's crew
- Ensuring the applicable requirements of the law of the flag of the Vessel are satisfied in respect of manning levels, rank, qualification and certification of the Crew and employment regulations including disciplinary and other requirements
- Ensuring that the Crew shall have a command of the English Language of a sufficient standard to enable them to perform their duties safely
- Ensuring that the Crew, before joining the Vessel, are given proper familiarization with their duties in relation to the ISM Code
- Instructing the Crew to obey all reasonable orders of the Owners and/or the Company including orders in connection with safety and navigation, avoidance of pollution, and protection of the environment

- Training the Crew and supervising their efficiency
- Operating the Owners' drug and alcohol policy, unless otherwise agreed
- There are other provisions to supply regular reports and records to the owners of the vessel."

With scrutiny on the ability of the crew of the *Wakashio* to know how to use the equipment on board the vessel, significant attention is likely to be given to how well trained the crew of the *Wakashio* were and how their efficiency was being supervised.

With questions also [raised by lawyers](#) about the role of alcohol, even though the Captain was [not on watch duty](#) at the time of the crash, the clause in the agreement on 'operating the owner's drug and alcohol policy' is likely to receive particular scrutiny.

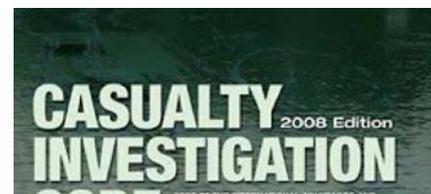
The laws and regulations around minimum safe manning is the result of a very careful analysis of the requirements for safe navigation and operation of a ship, so discarding such safe manning levels for such a long voyage to Brazil and back to Asia should not have been taken lightly.

Three actions called for by the ITF to improve safety of global shipping

In its report, the ITF call for three specific actions, all of which can be implemented before the end of the year, given the serious state of the global shipping industry.

1. Casualty Investigation Code

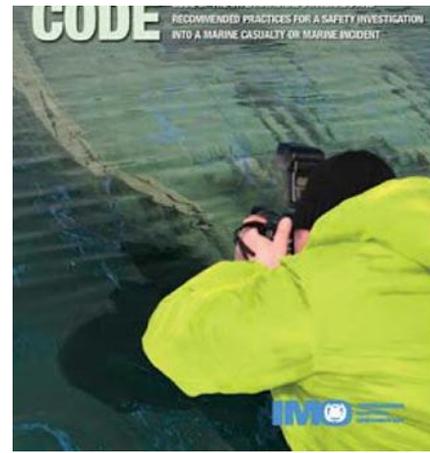
In any casualty inspection (which the *Wakashio* is going through), both the ITF and the IMO call for



verification of records' accuracy during inspections.

In the Beyond the Limit report and in statements by the IMO, they specifically highlight another UN agency's guidelines, the International Labor Organization.

- The ILO guidelines for Flag State Inspections and Port State Control Officers should be revised to include systematic verification of records' accuracy during initial inspections. Resolutions MSC.255 (84) and Casualty Investigation Code
- [A.1075\(28\)](#) related to the [Casualty Investigation Code](#) should require the systematic assessment of manning levels and report the adjustments of records and particularly those related to work/rest hours.
- Guidelines to assist investigators in the implementation of the Casualty Investigation Code (resolution MSC.255(84)) should provide ensure a common approach for States to adopt in the conduct of marine safety investigations into marine casualties and marine incidents.



The IMO's Casualty Investigation Code sets out the protocols and qualifications for inspectors to ... [+] INTERNATIONAL MARITIME ORGANIZATION

The IMO goes on to say, "The purpose of these Guidelines is to provide practical advice for the [systematic investigation](#) of marine casualties and incidents and to allow the development of effective analysis and preventive action. The overall objective is to prevent similar casualties and incidents in the future." This is a very different tone from the IMO representative in Mauritius, who almost made it seem that [such incidents are inevitable and it was](#)

the responsibility of the Mauritian taxpayers to prepare for the lax development and implementation of international shipping law.

There is a need for a particular focus on qualifications and training of investigators to demonstrate expertise in marine casualty investigation and be knowledgeable in matters relating to the marine casualty or incident. This means additional scrutiny will be placed on the qualifications, previous incident reports and experience of the Panama Maritime Authority investigators who are on the scene in Mauritius.

2. ISM Code

The ITF call for resolutions that evaluate the effectiveness of the ISM Code beyond just the paperwork.

This damning in the report, implying many of the shipping laws that govern global trade are paper laws that exist on paper, but are not being practically implemented, monitored or enforced.



Students operating equipment in ship's bridge simulation room GETTY

With new developments in Artificial Intelligence, the application of these technologies should allow an exponential scaling of such maritime safety applications. Every industry has adopted such tools, and ignorance cannot be an excuse any more in global shipping.

3. Tamper Proof Technologies

The ITF also highlight the amount of fraud in the global shipping industry that undermines ship safety.



They specifically point out that the “ILO and IMO should review tamper-proof monitoring technologies limiting manual input and forging attempts. Ethically acceptable technology guaranteeing seafarers’ dignity, and data confidentiality should be identified.”



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This is yet another example where the shipping industry’s historic underinvestment in technology relative to other industries is causing major safety and environmental hazards across the world’s oceans.

Shipping’s conveniently forgotten lessons

Fifteen years after MIT Professor and shipbuilder [Jack Devanney](#) wrote about the systemic issues in the global shipping industry almost 15 years ago in his iconic maritime accident book ‘[The Tankship Tromedy](#),’ it appears the global shipping industry have conveniently forgotten how to read and remember such lessons.

The once paradise tropical island of Mauritius - especially their people and the unique nature on the island - are now [paying the price](#) for the complacency and apathy in the global shipping industry.



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