



**SASB
STANDARDS**

Now part of IFRS Foundation

Marine Transportation

Sustainability Accounting Standard

TRANSPORTATION SECTOR

Sustainable Industry Classification System® (SICS®) TR-MT

Under Stewardship of the International Sustainability Standards Board

INDUSTRY STANDARD | VERSION 2023-12



sasb.org

ABOUT THE SASB STANDARDS

As of August 2022, the International Sustainability Standards Board (ISSB) of the IFRS Foundation assumed responsibility for the SASB Standards. The ISSB has committed to maintain, enhance and evolve the SASB Standards and encourages preparers and investors to continue to use the SASB Standards.

IFRS S1 *General Requirements for Disclosure of Sustainability-related Financial Information* (IFRS S1) requires entities to refer to and consider the applicability of disclosure topics in the SASB Standards when identifying sustainability-related risks and opportunities that could reasonably be expected to affect an entity's prospects. Similarly, IFRS S1 requires entities to refer to and consider the applicability of metrics in the SASB Standards when determining what information to disclose regarding sustainability-related risks and opportunities.

In June 2023, the ISSB amended climate-related topics and metrics in the SASB Standards to align them with the industry-based guidance accompanying IFRS S2 *Climate-related Disclosures*. In December 2023, the ISSB amended the non-climate-related topics and metrics in connection with the International Applicability of SASB Standards project.

Effective Date

This version 2023-12 of the Standard is effective for all entities for annual periods beginning or after January 1, 2025. Early adoption is permitted for all entities.

Table of Contents

INTRODUCTION..... 4

 Overview of SASB Standards..... 4

 Use of the Standards 5

 Industry Description 5

Sustainability Disclosure Topics & Metrics..... 6

 Greenhouse Gas Emissions 8

 Air Quality 13

 Ecological Impacts 14

 Workforce Health & Safety 18

 Business Ethics 19

 Accident & Safety Management 21

INTRODUCTION

Overview of SASB Standards

The SASB Standards are a set of 77 industry-specific sustainability accounting standards (“SASB Standards” or “Industry Standards”), categorised pursuant to the [Sustainable Industry Classification System® \(SICS®\)](#).

SASB Standards include:

1. **Industry descriptions** – which are intended to help entities identify applicable industry guidance by describing the business models, associated activities and other common features that characterise participation in the industry.
2. **Disclosure topics** – which describe specific sustainability-related risks or opportunities associated with the activities conducted by entities within a particular industry.
3. **Metrics** – which accompany disclosure topics and are designed to, either individually or as part of a set, provide useful information regarding an entity’s performance for a specific disclosure topic.
4. **Technical protocols** – which provide guidance on definitions, scope, implementation and presentation of associated metrics.
5. **Activity metrics** – which quantify the scale of specific activities or operations by an entity and are intended for use in conjunction with the metrics referred to in point 3 to normalise data and facilitate comparison.

Entities using the SASB Standards as part of their implementation of ISSB Standards should consider the relevant ISSB application guidance.

For entities using the SASB Standards independently from ISSB Standards, the [SASB Standards Application Guidance](#) establishes guidance applicable to the use of all Industry Standards and is considered part of the Standards. Unless otherwise specified in the technical protocols contained in the Industry Standards, the guidance in the SASB Standards Application Guidance applies to the definitions, scope, implementation, compilation and presentation of the metrics in the Industry Standards.

Historically, the [SASB Conceptual Framework](#) set out the basic concepts, principles, definitions and objectives that guided the SASB Standards Board in its approach to setting standards for sustainability accounting.

Use of the Standards

SASB Standards are intended to aid entities in disclosing information about sustainability-related risks and opportunities that could reasonably be expected to affect the entity's cash flows, its access to finance or cost of capital over the short, medium or long term. An entity determines which Industry Standard(s) and which disclosure topics are relevant to its business, and which associated metrics to report. In general, an entity should use the SASB Standard specific to its primary industry as identified in [SICS[®]](#). However, companies with substantial business in multiple SICS[®] industries should refer to and consider the applicability of the disclosure topics and associated metrics in additional SASB Standards.

The disclosure topics and associated metrics contained in this Standard have been identified as those that are likely to be useful to investors. However, the responsibility for making materiality judgements and determinations rests with the reporting entity.

Industry Description

Marine Transportation industry entities provide deep-sea, coastal or river-way freight shipping services. The industry is of strategic importance to international trade, and its revenues are tied to macroeconomic cycles. Important activities include transportation of containerised and bulk freight, including consumer goods and a wide range of commodities, and transportation of chemicals and petroleum products in tankers. Because of the industry's global scope, entities may operate under many diverse applicable jurisdictional legal and regulatory frameworks.

SUSTAINABILITY DISCLOSURE TOPICS & METRICS

Table 1. Sustainability Disclosure Topics & Metrics

TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
Greenhouse Gas Emissions	Gross global Scope 1 emissions	Quantitative	Metric tonnes (t) CO ₂ -e	TR-MT-110a.1
	Discussion of long- and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	Discussion and Analysis	n/a	TR-MT-110a.2
	(1) Total energy consumed, (2) percentage heavy fuel oil and (3) percentage renewable	Quantitative	Gigajoules (GJ), Percentage (%)	TR-MT-110a.3
	Average Energy Efficiency Design Index (EEDI) for new ships	Quantitative	Grammes of CO ₂ per ton-nautical mile	TR-MT-110a.4
Air Quality	Air emissions of the following pollutants: (1) NO _x (excluding N ₂ O), (2) SO _x , and (3) particulate matter (PM ₁₀)	Quantitative	Metric tonnes (t)	TR-MT-120a.1
Ecological Impacts	Shipping duration in marine protected areas or areas of protected conservation status	Quantitative	Number of travel days	TR-MT-160a.1
	Percentage of fleet implementing ballast water (1) exchange and (2) treatment	Quantitative	Percentage (%)	TR-MT-160a.2
	(1) Number and (2) aggregate volume of spills and releases to the environment	Quantitative	Number, Cubic metres (m ³)	TR-MT-160a.3
Workforce Health & Safety	Lost time incident rate (LTIR)	Quantitative	Rate	TR-MT-320a.1
Business Ethics	Number of calls at ports in countries that have the 20 lowest rankings in Transparency International's Corruption Perception Index	Quantitative	Number	TR-MT-510a.1
	Total amount of monetary losses as a result of legal proceedings associated with bribery or corruption ¹	Quantitative	Presentation currency	TR-MT-510a.2

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¹ Note to **TR-MT-510a.2** – The entity shall briefly describe the nature, context and any corrective actions taken because of monetary losses.

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TOPIC	METRIC	CATEGORY	UNIT OF MEASURE	CODE
Accident & Safety Management	(1) Number of marine casualties, (2) percentage classified as very serious ²	Quantitative	Number, Percentage (%)	TR-MT-540a.1
	Number of Conditions of Class or Recommendations	Quantitative	Number	TR-MT-540a.2
	Number of port state control (1) deficiencies and (2) detentions	Quantitative	Number	TR-MT-540a.3

Table 2. Activity Metrics

ACTIVITY METRIC	CATEGORY	UNIT OF MEASURE	CODE
Number of shipboard employees ³	Quantitative	Number	TR-MT-000.A
Total distance travelled by vessels	Quantitative	Nautical miles (nm)	TR-MT-000.B
Operating days ⁴	Quantitative	Days	TR-MT-000.C
Deadweight tonnage ⁵	Quantitative	Thousand deadweight tonnes	TR-MT-000.D
Number of vessels in total shipping fleet	Quantitative	Number	TR-MT-000.E
Number of vessel port calls	Quantitative	Number	TR-MT-000.F
Twenty-foot equivalent unit (TEU) capacity	Quantitative	TEU	TR-MT-000.G

² Note to **TR-MT-540a.1** – The disclosure shall include a description of marine casualties and very serious marine casualties, outcomes and corrective actions implemented in response.

³ Note to **TR-MT-000.A** – Shipboard employees are those employees who work aboard the entity's vessels (including direct and contract employees) during the reporting period.

⁴ Note to **TR-MT-000.C** – Operating days are calculated as the number of available days in a reporting period minus the aggregate number of days the vessels are off-hire because of unforeseen circumstances (a measure of days in a reporting period during which vessels actually generate revenue).

⁵ Note to **TR-MT-000.D** – Deadweight tonnage is the sum, for all the entity's vessels, of the difference in displacement in deadweight tonnes between the light displacement and the actual loaded displacement.

Greenhouse Gas Emissions

Topic Summary

Marine transportation entities generate emissions mainly from the combustion of diesel in ship engines. The industry's reliance on heavy fuel oil ('bunker fuel') is of material concern because of rising fuel costs and intensifying greenhouse gas (GHG) regulations. The industry is among the most fuel efficient of the major transportation modes in terms of fuel use per tonne shipped. However, because of the industry's size, its contribution to the global GHG emissions is still significant. Recent environmental regulations are encouraging the adoption of more fuel-efficient engines and the use of cleaner-burning fuels. Fuel constitutes a major expense for industry players, providing a further incentive for investing in upgrades or retrofits to boost fuel efficiency.

Metrics

TR-MT-110a.1. Gross global Scope 1 emissions

- 1 The entity shall disclose its gross global Scope 1 greenhouse gas (GHG) emissions to the atmosphere of the seven GHGs covered under the Kyoto Protocol—carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF₆), and nitrogen trifluoride (NF₃).
 - 1.1 Emissions of all GHGs shall be consolidated and disclosed in metric tonnes of carbon dioxide equivalents (CO₂-e) and calculated in accordance with published 100-year time horizon global warming potential (GWP) values. To date, the preferred source for GWP values is the Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report (2014).
 - 1.2 Gross emissions are GHGs emitted into the atmosphere before accounting for offsets, credits or other similar mechanisms that have reduced or compensated for emissions.
- 2 Scope 1 emissions are defined and shall be calculated according to the methodology contained in *The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard* (GHG Protocol), Revised Edition, March 2004, published by the World Resources Institute and the World Business Council on Sustainable Development (WRI/WBCSD).
 - 2.1 Acceptable calculation methodologies include those that conform to the *GHG Protocol* as the base reference, but provide additional guidance, such as industry- or region-specific guidance. Examples may include:
 - 2.1.1 *GHG Reporting Guidance for the Aerospace Industry* published by the International Aerospace Environmental Group (IAEG)
 - 2.1.2 *Greenhouse Gas Inventory Guidance: Direct Emissions from Stationary Combustion Sources* published by the U.S. Environmental Protection Agency (EPA)
 - 2.1.3 India GHG Inventory Program

2.1.4 ISO 14064-1

2.1.5 *Petroleum Industry Guidelines for reporting GHG emissions*, 2nd edition, 2011, published by Ipieca

2.1.6 *Protocol for the quantification of greenhouse gas emissions from waste management activities* published by Entreprises pour l'Environnement (EpE)

2.2 GHG emissions data shall be consolidated and disclosed according to the approach with which the entity consolidates its financial reporting data, which is generally aligned with the 'financial control' approach defined by the *GHG Protocol*, and the approach published by the Climate Disclosure Standards Board (CDSB) described in REQ-07, 'Organisational boundary,' of the *CDSB Framework for reporting environmental and social information*.

- 3 The entity may discuss any change in emissions from the previous reporting period, including whether the change was because of emissions reductions, divestment, acquisition, mergers, changes in output or changes in calculation methodology.
- 4 In the case that current reporting of GHG emissions to the CDP or other entity (for example, a national regulatory disclosure programme) differs in terms of the scope and consolidation approach used, the entity may disclose those emissions. However, primary disclosure shall be according to the guidelines described above.
- 5 The entity may discuss the calculation methodology for its emissions disclosure, such as if data are from continuous emissions monitoring systems (CEMS), engineering calculations or mass balance calculations.

TR-MT-110a.2. Discussion of long- and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets

- 1 The entity shall discuss its long- and short-term strategy or plan to manage its Scope 1 greenhouse gas (GHG) emissions.
 - 1.1 Scope 1 emissions are defined according to *The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard* (GHG Protocol), Revised Edition, March 2004, published by the World Resources Institute and the World Business Council on Sustainable Development (WRI/WBCSD).
 - 1.2 The scope of GHG emissions includes the seven GHGs covered under the Kyoto Protocol—carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF₆) and nitrogen trifluoride (NF₃).
- 2 The entity shall discuss its emission reduction target(s) and analyse its performance against the target(s), including, if relevant:
 - 2.1 The scope of the emission reduction target (for example, the percentage of total emissions to which the target is applicable);
 - 2.2 Whether the target is absolute or intensity-based, and the metric denominator if it is an intensity-based target;

- 2.3 The percentage reduction against the base year, with the base year representing the first year against which emissions are evaluated towards the achievement of the target;
 - 2.4 The time lines for the reduction activity, including the start year, the target year and the base year;
 - 2.5 The mechanism(s) for achieving the target; and
 - 2.6 Any circumstances in which the target or base year emissions have been, or may be, recalculated retrospectively or the target or base year has been reset.
- 3 The entity shall discuss the activities and investments required to achieve the plans or targets, and any risks or limiting factors that might affect achievement of the plans or targets.
- 3.1 Relevant activities and investments may include: route optimisation, use of alternative fuels and energy sources, system improvements, optimisation of ship operation, improving efficiency through ship design and propulsion systems (including hull and propeller improvements), and upgrading the fleet with new ships.
- 4 The entity shall discuss the scope of its strategies, plans or reduction targets, such as whether they pertain differently to different business units, geographies or emissions sources.
- 5 The entity shall discuss whether its strategies, plans or reduction targets are related to, or associated with, emissions limiting or emissions reporting-based programmes or regulations (for example, the EU Emissions Trading Scheme, Quebec Cap-and-Trade System, California Cap-and-Trade Program), including regional, national, international or sectoral programmes.
- 6 Disclosure of strategies, plans or reduction targets shall be limited to activities that were ongoing (active) or reached completion during the reporting period.

TR-MT-110a.3. (1) Total energy consumed, (2) percentage heavy fuel oil and (3) percentage renewable

- 1 The entity shall disclose (1) the total amount of energy it consumed as an aggregate figure, in gigajoules (GJ).
- 1.1 The scope of energy consumption includes energy from all sources, including energy purchased from external sources and energy produced by the entity itself (self-generated). For example, direct fuel usage, purchased electricity, and heating, cooling and steam energy are all included within the scope of energy consumption.
 - 1.2 The scope of energy consumption includes only energy directly consumed by the entity during the reporting period.
 - 1.3 In calculating energy consumption from fuels and biofuels, the entity shall use higher heating values (HHV), also known as gross calorific values (GCV), which are measured directly or taken from the Intergovernmental Panel on Climate Change (IPCC).
- 2 The entity shall disclose (2) the percentage of energy it consumed that was supplied from heavy fuel oil.

- 2.1 Heavy fuel oils are defined as heavier oils that remain after distillate fuel oils and lighter hydrocarbons are distilled away in refinery operations.
 - 2.2 The percentage shall be calculated as heavy fuel oil consumption divided by total energy consumption.
- 3 The entity shall disclose (3) the percentage of energy it consumed that is renewable energy.
 - 3.1 Renewable energy is defined as energy from sources that are replenished at a rate greater than or equal to their rate of depletion, such as geothermal, wind, solar, hydro and biomass.
 - 3.2 The percentage shall be calculated as renewable energy consumption divided by total energy consumption.
 - 3.3 The scope of renewable energy includes renewable fuel the entity consumed, renewable energy the entity directly produced and renewable energy the entity purchased, if purchased through a renewable power purchase agreement (PPA) that explicitly includes renewable energy certificates (RECs) or Guarantees of Origin (GOs), a Green-e Energy Certified utility or supplier programme, or other green power products that explicitly include RECs or GOs, or for which Green-e Energy Certified RECs are paired with grid electricity.
 - 3.3.1 For any renewable electricity generated on-site, any RECs and GOs shall be retained (not sold) and retired or cancelled on behalf of the entity for the entity to claim them as renewable energy.
 - 3.3.2 For renewable PPAs and green power products, the agreement shall explicitly include and convey that RECs and GOs be retained or replaced and retired or cancelled on behalf of the entity for the entity to claim them as renewable energy.
 - 3.3.3 The renewable portion of the electricity grid mix outside the control or influence of the entity is excluded from the scope of renewable energy.
 - 3.4 For the purposes of this disclosure, the scope of renewable energy from biomass sources is limited to materials certified to a third-party standard (for example, Forest Stewardship Council, Sustainable Forest Initiative, Programme for the Endorsement of Forest Certification or American Tree Farm System), materials considered eligible sources of supply according to the *Green-e Framework for Renewable Energy Certification, Version 1.0* (2017) or Green-e regional standards or materials eligible for an applicable jurisdictional renewable portfolio standard.
- 4 The entity shall apply conversion factors consistently for all data reported under this disclosure, such as the use of HHVs for fuel use (including biofuels) and conversion of kilowatt hours (kWh) to GJ (for energy data including electricity from solar or wind energy).

TR-MT-110a.4. Average Energy Efficiency Design Index (EEDI) for new ships

- 1 The entity shall disclose the average Energy Efficiency Design Index (EEDI) for new ships in grammes of carbon dioxide per ton-nautical mile.
 - 1.1 An EEDI value is the product of power installed, specific fuel consumption and carbon conversion, divided by the product of available capacity and vessel speed at design load.

- 1.2 The entity shall calculate the average EEDI as a simple average of the EEDI value of all new ships added to the entity's fleet during the reporting period.
 - 1.2.1 New ships are limited to those built after 2013 and for which the International Maritime Organisation (IMO) has adopted EEDI as a metric.
- 1.3 The entity shall follow calculation methodologies outlined in IMO MEPC 66/21/Add.1, Annex 5, *2014 Guidelines on the Method of Calculation of the Attained Energy Efficiency Design Index (EEDI) For New Ships*.

Air Quality

Topic Summary

Air pollutants such as sulphur oxides (SO_x), nitrogen oxides (NO_x) and particulate matter (PM₁₀) are significant environmental externalities from the use of fossil fuels by marine shipping entities. These pollutants tend to have localised environmental and health impacts and are especially a concern at port cities. Air pollution regulations are encouraging the adoption of more fuel-efficient engines and the use of cleaner-burning fuels as entities seek to reduce exposure to fines and environmental remediation costs. A further fuel efficiency incentive is that fuel constitutes a major expense for the industry, so capital expenditures to upgrade vessels may be offset over the long term from fuel costs savings.

Metrics

TR-MT-120a.1. Air emissions of the following pollutants: (1) NO_x (excluding N₂O), (2) SO_x, and (3) particulate matter (PM₁₀)

- 1 The entity shall disclose its emissions of air pollutants, in metric tonnes per pollutant, released into the atmosphere.
 - 1.1 The scope of the disclosure includes air pollutants associated with the entity's direct air emissions resulting from all the entity's activities and sources of emissions, which may include stationary or mobile sources, production facilities, office buildings and transportation fleets.
- 2 The entity shall disclose its emissions of (1) oxides of nitrogen (NO_x), reported as NO_x.
 - 2.1 The scope of NO_x includes NO and NO₂ but excludes N₂O.
- 3 The entity shall disclose its emissions of (2) oxides of sulphur (SO_x), reported as SO_x.
 - 3.1 The scope of SO_x includes SO₂ and SO₃.
- 4 The entity shall disclose its emissions of (3) particulate matter 10 micrometres or less in diameter (PM₁₀), reported as PM₁₀.
 - 4.1 PM₁₀ is defined as any airborne finely divided solid or liquid material with an aerodynamic diameter less than or equal to a nominal 10 micrometres.
- 5 The entity may discuss the calculation method for its emissions disclosure, such as whether data is from continuous emissions monitoring systems (CEMS), engineering calculations or mass balance calculations.

Ecological Impacts

Topic Summary

The operations and waste disposal practices of marine transportation entities may create substantial environmental externalities, such as water pollution and damage to marine life. Seagoing vessels routinely discharge ballast water, bilge water and untreated sewage. Compliance with international regulations intended to manage the ecological impacts of operation may require significant capital expenditures to upgrade or instal waste management systems. Illegal bilge water dumping and other unregulated discharges may result in hefty fines, negatively affecting an entity's risk profile. Operating in areas of protected conservation status, such as Emission Control Areas (ECAs) and Particularly Sensitive Sea Areas (PSSAs), may increase the risk of ecological impacts as well as the risk of violating environmental regulations.

Metrics

TR-MT-160a.1. Shipping duration in marine protected areas or areas of protected conservation status

- 1 The entity shall disclose the shipping duration spent in marine protected areas or areas with protected conservation status.
 - 1.1 Shipping duration is the sum of the travel days (24-hour periods or fractions thereof), including time spent docked at ports.
 - 1.2 A marine protected area is defined according to the International Union for Conservation of Nature (IUCN) as any area of the intertidal or subtidal terrain, together with its overlying water and associated flora, fauna, and historical and cultural features, that has been reserved by law or other effective means to protect part or all of the enclosed environment. Marine protected areas include areas internationally established and regulated in International Maritime Organization (IMO) conventions and areas established nationally by member states, such as:
 - 1.2.1 Areas to be Avoided established by IMO *International Convention for Safety of Life at Sea* (SOLAS), Chapter V, regulation 10;
 - 1.2.2 Areas with Mandatory Ship Reporting Systems established by IMO SOLAS, Chapter V, regulation 11;
 - 1.2.3 Emission Control Areas under MARPOL Annex VI;
 - 1.2.4 No Anchoring Areas established by IMO SOLAS Chapter V, regulation 10;
 - 1.2.5 Particularly Sensitive Sea Areas (PSSAs) designated by the Marine Environment Protection Committee of the IMO in accordance with IMO *Guidelines for the Identification and Designation of Particularly Sensitive Sea Areas* (resolution A.982(24)); and

- 1.2.6 Special Areas designated under the International Convention for the Prevention of Pollution from Ships (MARPOL) Annexes I, II and IV.
- 1.3 An area of protected conservation status, which may be listed in the World Database of Protected Areas (WDPA) and mapped on Protected Planet, is defined as an area located within:
 - 1.3.1 Biosphere Reserves recognised within the framework of the United Nations Educational, Scientific and Cultural Organization's (UNESCO's) Man and the Biosphere (MAB) Programme;
 - 1.3.2 International Union for Conservation of Nature (IUCN) Protected Areas (categories I–VI);
 - 1.3.3 marine sanctuaries;
 - 1.3.4 national parks;
 - 1.3.5 Marine Natura 2000 sites;
 - 1.3.6 Ramsar Wetlands of International Importance;
 - 1.3.7 sites that meet the IUCN's definition of a protected area: 'A protected area is a clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values';⁶
 - 1.3.8 UNESCO marine World Heritage sites; and
 - 1.3.9 other areas where discharges are restricted or subject to local agreements.
- 2 The entity may identify separately shipping duration in areas with additional ecological, biodiversity or conservation designations such as those listed by the A–Z Guide of Areas of Biodiversity Importance, prepared by the United Nations Environment Programme's World Conservation Monitoring Centre (UNEP-WCMC).
- 3 The entity may discuss its shipping activities in marine protected areas and areas of protected conservation status that present low risk to biodiversity or ecosystem services.
- 4 The entity may discuss its shipping activities in areas that have no official designation but that present high biodiversity or ecosystem services risks.

TR-MT-160a.2. Percentage of fleet implementing ballast water (1) exchange and (2) treatment

- 1 The entity shall disclose (1) the percentage of its fleet that has implemented ballast water exchange.

⁶ N. Dudley (ed.), *Guidelines for Applying Protected Areas Management Categories*, Gland, Switzerland: IUCN, 2008, pp. 8–9.

- 1.1 Ballast water exchange is defined by the D1 standard of the International Maritime Organization's (IMO) *International Convention for the Control and Management of Ships' Ballast Water and Sediments* (BWM) and requires that ships performing ballast water exchange do so with an efficiency of at least a 95% volumetric exchange of ballast water. The three accepted methods of ballast water exchange are the sequential, flow-through and dilution methods.
- 1.2 The percentage shall be calculated as the number of ships in the entity's fleet that have implemented ballast water exchange that meets the D1 standard specifications divided by the total number of ships in the fleet.
- 2 The entity shall disclose (2) the percentage of its fleet that has implemented ballast water treatment.
 - 2.1 Ballast water treatment includes implementation of an integrated system of ballast water treatment equipment that is approved by the applicable jurisdictional legal or regulatory authority to meet the performance criteria in D2 standard of the BWM.
 - 2.1.1 Approved systems must discharge (a) less than 10 viable organisms per cubic metre that are greater than or equal to 50 micrometres in minimum dimension and (b) less than 10 viable organisms per millilitre that are less than 50 micrometres in minimum dimension and greater than or equal to 10 micrometres in minimum dimension.
 - 2.2 The percentage shall be calculated as the number of ships in the entity's fleet that have implemented ballast water treatment systems that meet the D2 standard specifications divided by the total number of ships in the fleet.

TR-MT-160a.3. (1) Number and (2) aggregate volume of spills and releases to the environment

- 1 The entity shall disclose (1) the total number of spills and releases of hazardous material to the environment.
 - 1.1 Spills and releases include releases overboard that are intentional or accidental, including:
 - 1.1.1 those resulting from sabotage, earthquakes or other events outside of the entity's operational control; and
 - 1.1.2 those resulting from leakage over time (which shall be counted once at the time the leak is identified).
- 2 The scope of the disclosure includes spills and releases that result in harm to the environment, including spills or releases of:
 - 2.1 hazardous materials (including explosives; radioactive materials; infectious substances; flammable or combustible liquids, solids or gases; toxic, oxidising or corrosive materials; and compressed gases) in quantities equal to or exceeding, in any 24-hour period, the reportable quantity determined in accordance with applicable jurisdictional legal or regulatory guidelines;

- 2.1.1 The scope of hazardous materials includes hazardous substances, hazardous wastes, marine pollutants, elevated temperature materials, and materials designated as hazardous by the applicable jurisdictional legal and regulatory framework(s) where the materials were generated.
 - 2.1.2 The entity may use definitions of hazardous waste from the United Nations Environment Programme (UNEP) *Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal*.
- 2.2 noxious liquid substances presenting a major hazard (Category X) or a minor hazard (Category Y) according to the International Convention for the Prevention of Pollution from Ships (MARPOL) Annex II; and
- 2.3 oils, excluding those that are: (a) from a properly functioning vessel engine and any discharges of such oil accumulated in the bilges of a vessel discharged in compliance with MARPOL 73/78, Annex I; or (b) permitted under MARPOL 73/78, Annex I.
- 3 The entity shall disclose (2) the total volume of spills and releases to the environment in cubic metres.
 - 3.1 The volume shall be calculated as the total estimated amount spilled that reached the environment, without reducing that figure by the amount of such material subsequently recovered, evaporated or otherwise lost.
- 4 If relevant, the entity may provide a disaggregation of spills and releases by type, such as: (1) hydrocarbons, (2) hazardous substances and (3) MARPOL Annex II noxious liquid substances.
- 5 The entity may provide a disaggregation of spills and releases by their proximity to land, such as: (1) those 24 nautical miles or closer to shore and (2) those greater than 24 nautical miles from shore.

Workforce Health & Safety

Topic Summary

Marine transportation workers face dangers such as hazardous weather and exposure to large machinery and heavy cargo. The greatest health and safety risks occur during loading and unloading cargo at ports. Ships must be loaded and unloaded quickly and on schedule, increasing injury risk, fatigue and stress. The health and well-being of workers in the industry also is linked inextricably to entity safety performance since a healthy crew is necessary for safe voyages. Entities with inadequate safety management systems that fail to ensure crew health and safety may witness increased employee turnover and worker-related expenses, including medical expenses such as insurance premiums and worker pay-outs.

Metrics

TR-MT-320a.1. Lost time incident rate (LTIR)

- 1 The entity shall disclose its lost time incident rate (LTIR) for work-related injuries and illnesses.
 - 1.1 A lost time incident is an incident that results in absence from work beyond the date or shift when it occurred.
 - 1.2 The rate shall be calculated as: (lost time incidents) / (1,000,000 hours worked).
- 2 The entity may disclose its process for classifying, identifying and reporting lost time incidents.
 - 2.1 The International Chamber of Shipping and the International Maritime Organization (IMO) International Safety Management Code (ISM Code) provide additional guidance in implementing lost time incident reporting.
- 3 The scope of the disclosure includes all employees regardless of employee location.

Business Ethics

Topic Summary

Port facilitation payments are considered standard business practice in some countries to obtain permits, cargo clearance and port berths. However, anti-bribery laws place pressure on marine transportation entities to alter this practice. Enforcement of these laws may result in significant one-time costs and higher compliance costs and increased cost of capital, or affect an entity's social licence to operate. Entity governance must monitor for and prevent corruption, participation—whether wilful or unintentional—in illegal or unethical payments, or the exertion of unfair influence. Operating in corruption-prone countries may exacerbate these risks.

Metrics

TR-MT-510a.1. Number of calls at ports in countries that have the 20 lowest rankings in Transparency International's Corruption Perception Index

- 1 The entity shall disclose the total number of calls at ports in countries that have the 20 lowest rankings in Transparency International's Corruption Perception Index (CPI).
 - 1.1 The 20 lowest numerical ranks shall be used to generate the scope of countries. Because more than one country can share a single rank, the scope may include more than 20 countries.
 - 1.2 The entity shall use the most current version of the CPI.

TR-MT-510a.2. Total amount of monetary losses as a result of legal proceedings associated with bribery or corruption

- 1 The entity shall disclose the total amount of monetary losses incurred during the reporting period resulting from legal proceedings associated with bribery, corruption or other unethical business practices.
- 2 The legal proceedings shall include any adjudicative proceeding involving the entity, whether before a court, a regulator, an arbitrator or otherwise.
- 3 The losses shall include all monetary liabilities to the opposing party or to others (whether as the result of settlement, verdict after trial or otherwise), including fines and other monetary liabilities incurred during the reporting period as a result of civil actions (for example, civil judgements or settlements), regulatory proceedings (for example, penalties, disgorgement or restitution) and criminal actions (for example, criminal judgements, penalties or restitution) brought by any entity (for example, governmental, business or individual).
- 4 The scope of monetary losses shall exclude legal and other fees and expenses incurred by the entity in its defence.
- 5 The scope of the disclosure shall include legal proceedings associated with the enforcement of applicable jurisdictional laws or regulations.

Note to **TR-MT-510a.2**

- 1 The entity shall briefly describe the nature (for example, guilty plea, deferred agreement or non-prosecution agreement) and context (for example, bribery or facilitation payment) of all monetary losses resulting from legal proceedings.
- 2 The entity shall describe any corrective actions implemented in response to the legal proceedings. This may include specific changes in operations, management, processes, products, business partners, training or technology.

Accident & Safety Management

Topic Summary

Accidents or leaks involving large vessels can have significant impacts on life, property and the environment. Negative media attention and significant clean-up costs may impair an entity's finances. To reduce the risk of accidents, entities conduct extensive safety measures, such as employee training programmes, periodic dry-docking maintenance periods and annual class-renewal surveys conducted by classification societies. The global marketplace's reliance on the shipping industry means that voyages must be made within precise timeframes, providing further accident prevention incentives.

Metrics

TR-MT-540a.1. (1) Number of marine casualties, (2) percentage classified as very serious

1 The entity shall disclose the total number of marine casualties involving its fleet.

1.1 A marine casualty is defined, based on the United Nations International Maritime Organization (IMO)'s *Code of International Standards and Recommended Practices for a Safety Investigation into a Marine Casualty or Marine Incident* Resolution MSC 255(84), Chapter 2, Paragraph 2.9, as an event, or sequence of events, that occurs directly in connection with the operations of a ship and results in:

1.1.1 the death of, or serious injury to, a person;

1.1.2 the loss of a person from a ship;

1.1.3 the loss, presumed loss or abandonment of a ship;

1.1.4 material damage to a ship;

1.1.5 the stranding or disabling of a ship, or the involvement of a ship in a collision;

1.1.6 material damage to marine infrastructure external to a ship, that could seriously endanger the safety of the ship, another ship or an individual; or

1.1.7 severe damage to the environment, or the potential for severe damage to the environment, brought about by the damage of a ship or ships.

2 The entity shall disclose the percentage of marine casualties classified as very serious marine casualties.

2.1 A very serious marine casualty is defined as a marine casualty involving the total loss of the ship, a death or severe damage to the environment.

2.2 The percentage shall be calculated as the number of very serious marine casualties divided by the total number of marine casualties.

Note to **TR-MT-540a.1**

- 1 The entity shall describe marine casualties and very serious marine casualties, including root causes, outcomes and any corrective actions implemented in response.

TR-MT-540a.2. Number of Conditions of Class or Recommendations

- 1 The entity shall disclose the total number of Conditions of Class or Recommendations received from a flag administration or a recognised organisation (RO) that has been delegated the authority to issue them.
 - 1.1 Conditions of Class or Recommendations are understood to be interchangeable terms, defined as requirements imposed by an administration (or its delegate, such as a classification society) to be carried out within a specific time limit to retain vessel class, which may include:
 - 1.1.1 repairs or renewals related to damages that affect classification (for example, grounding, structural damages, machinery damages and wastage over the allowable limits);
 - 1.1.2 supplementary survey requirements; and
 - 1.1.3 temporary repairs.
 - 1.2 The scope of the disclosure includes all Conditions of Class regardless of whether they resulted in withdrawal, suspension or invalidation of a vessel's class certificate.

TR-MT-540a.3. Number of port state control (1) deficiencies and (2) detentions

- 1 The entity shall disclose (1) the total number of deficiencies it received from regional port state control (PSC) organisations.
 - 1.1 A deficiency is defined as a condition found non-compliant with the requirements of one or more of these conventions:
 - 1.1.1 International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocols of 1978 and 1997 relating thereto, as amended (MARPOL);
 - 1.1.2 International Convention for the Safety of Life at Sea (SOLAS);
 - 1.1.3 International Convention on Load Lines;
 - 1.1.4 International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, as amended (STCW);
 - 1.1.5 International Convention on the Control of Harmful Anti-Fouling Systems on Ships (AFS);
 - 1.1.6 International Convention on Tonnage Measurement of Ships, 1969 (Tonnage); and
 - 1.1.7 International Labour Organization (ILO) Maritime Labour Convention, 2006.

- 2 The entity shall disclose (2) the total number of detentions it received from regional PSC organisations.
 - 2.1 A detention is defined as an intervention action by a port state, taken if the condition of a ship or its crew does not substantially adhere to the applicable conventions. A detention ensures that the ship will not sail until it can proceed to sea without presenting a danger to the ship or persons onboard, and without presenting an unreasonable threat of harm to the marine environment, regardless of whether such action affects the normal schedule of the ship's departure.
- 3 The scope of the disclosure includes deficiencies and detentions issued by PSC organisations that are signatories to memoranda of understanding (MoU) of regional PSC organisations.



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