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FAL.5/Circ.41
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REVISED IMO COMPENDIUM ON FACILITATION AND ELECTRONIC BUSINESS

- 1 The Facilitation Committee, at its forty-third session (8 to 12 April 2019), approved the *Revised IMO Compendium on facilitation and electronic business*, as set out in the annex.
- 2 The Committee recalled that this revised Compendium refers to the data elements related to the FAL Convention.
- 3 The Committee agreed to keep the Compendium under review and further development, including in relation to an expanded role into data elements beyond those mandated by the FAL Convention.
- 4 Member Governments are invited to bring the Compendium to the attention of all parties concerned.
- 5 Member Governments, international organizations and non-governmental organizations with consultative status are also invited to bring to the attention of the Committee, at the earliest opportunity, the results of the experience gained from the use of the Compendium for consideration of action to be taken.
- 6 This circular revokes FAL.5/Circ.40 issued on 4 July 2013. Any reference to FAL.5/Circ.40 and its corrigenda should be read as reference to the present circular.

ANNEX

REVISED IMO COMPENDIUM ON FACILITATION AND ELECTRONIC BUSINESS

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Section 1 Purpose and use

A Purpose

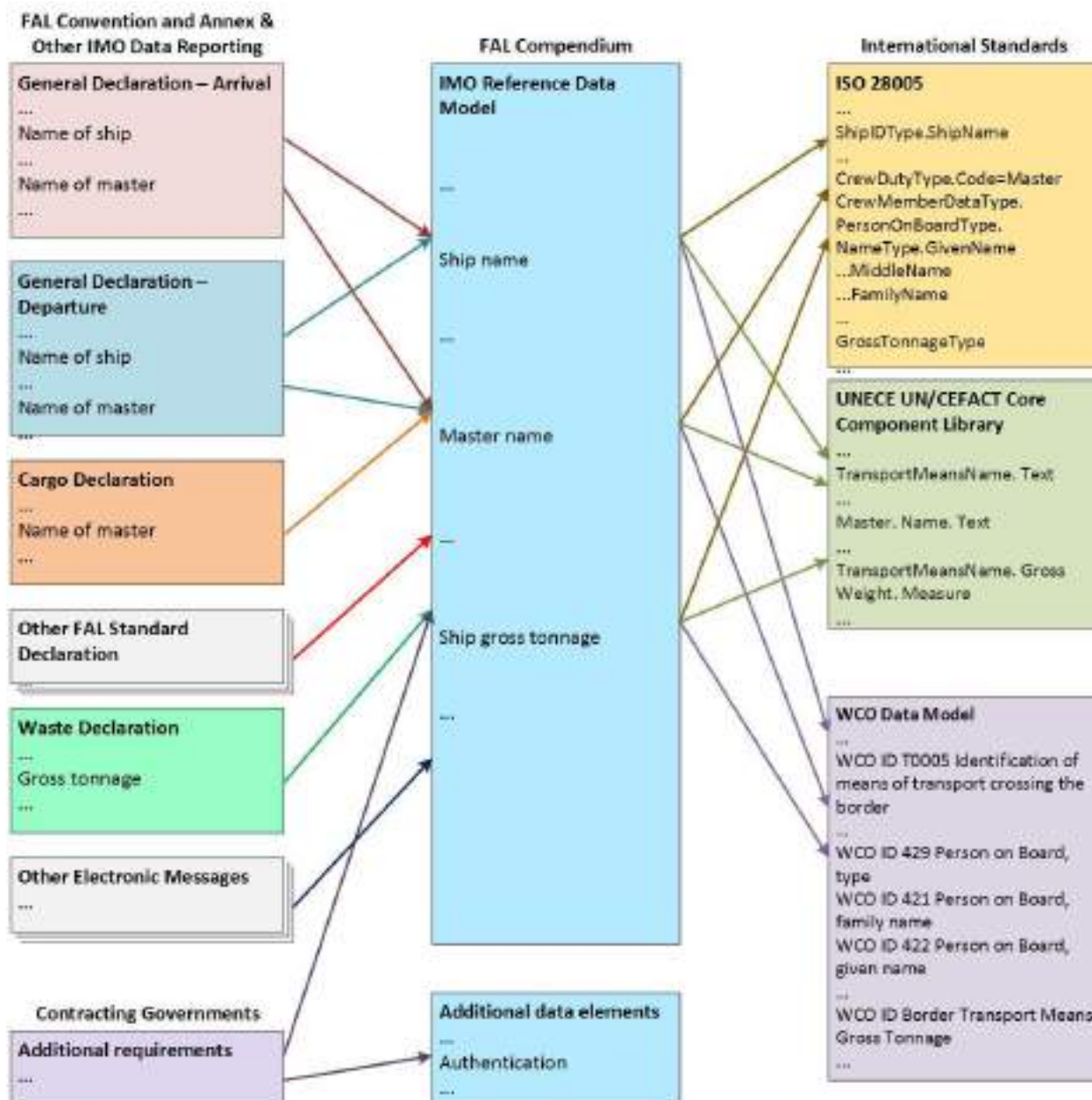
1.1 The Compendium on Facilitation and Electronic Business (Compendium) serves as a reference manual for creating and harmonizing the systems needed to support transmission, receipt and response of information required for the arrival, stay and departure of the ship, persons and cargo via electronic data exchange, namely the following declarations:

- .1 General Declaration;
- .2 Cargo Declaration;
- .3 Ship's Stores Declaration;
- .4 Crew's Effects Declaration;
- .5 Crew List;
- .6 Passenger List;
- .7 Dangerous Goods Manifest;
- .8 Security-related information as required under SOLAS regulation XI-2/9.2.2;
and
- .9 Advance Notification for Waste Delivery to Port Reception Facilities.

1.2 In the Compendium, the Facilitation Committee constructs the IMO Data Set (see section 2) to identify and define all of the data elements related to reporting information requirements and the IMO Reference Data Model (see section 3) to establish the underlying hierarchical data structure used in electronic data exchange.

1.3 The IMO Data Set combined with the IMO Reference Data Model promote harmonization among the relevant international standards used for electronic business from the World Customs Organization (WCO), the United Nations Economic Commission for Europe (UNECE), the International Organization for Standardization (ISO TC 8) and other organizations. Figure 1 illustrates the flow of reporting data and the interaction of the international standards. Harmonization stimulates implementation of the single window concept as a high-level priority of the Organization and supports interoperability among single window systems. Single window processes enhance efficient international trade by simplifying communications among stakeholders and creating an electronic information environment that promotes accountability, transparency and informed decision-making.

Figure 1: Relationships among the FAL Convention, the FAL Compendium and International Standards



1.4 The Facilitation Committee standardizes the nature and scope of information to be submitted and processed as required by the annex to the Convention on Facilitation of International Maritime Traffic, 1965 (Convention). The Maritime Safety Committee (MSC) standardizes the security-related information submitted as required in SOLAS regulation XI-2/9.2.2 through MSC/Circ.1305, *Revised guidance to masters, companies and duly authorized officers on the requirements relating to the submission of security-related information prior to the entry of a ship into port*. The Marine Environmental Protection Committee (MEPC) standardizes the information submitted for waste delivery in port through MEPC.1/Circ.834/Rev.1, appendix 2, *Standard format of the Advance Notification Form for waste delivery to port reception facilities*. The Compendium is a tool for efficient, electronic transmission of all this vital information in a way intended to minimize the burden on shippers, crews, agents, port authorities and other stakeholders.

1.5 Annexes 1 to 3 explain the mapping of the IMO Data Set and IMO Reference Data Model to the relevant international standards.

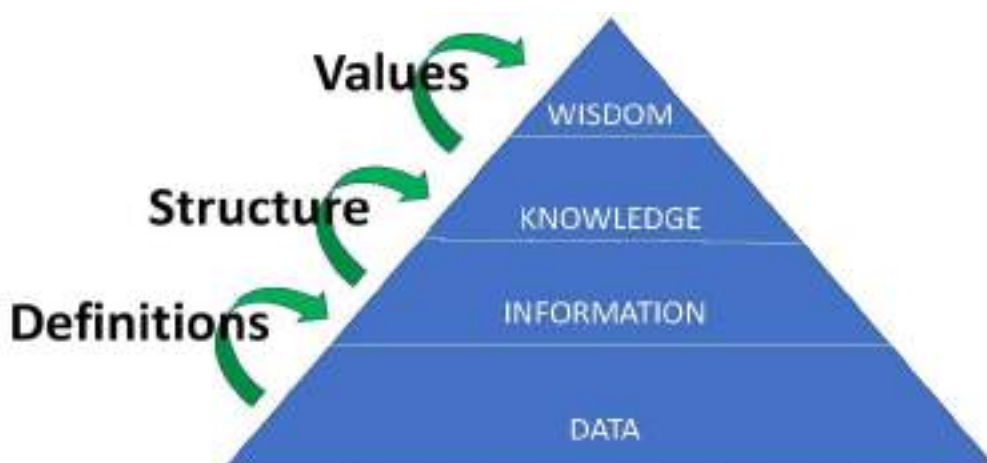
1.6 The Compendium does not serve as a reference manual for transmission and processing of ship, person and cargo information by facsimile, email and other means independent from the common standard data models used for electronic business.

B Electronic data submission and collection

1.7 The Organization identifies electronic data exchange as the preferred method of communication through the annex to the Convention. This Compendium promotes and supports electronic data exchange conducted using standardized data models and their implementation guidelines.

1.8 Electronic business has clear, quantifiable benefits over a paper-based environment in most cases. These globally accepted benefits led to the requirements for electronic reporting in the annex to the Convention. The holistic value of electronic data exchange is an equally important part of the philosophy promoted in this Compendium. The Data-Knowledge-Information-Wisdom (DIKW) pyramid¹ demonstrates this concept. Figure 2 illustrates how the data submitted through electronic data exchange leads to wisdom, defined for the purposes of this Compendium as *the willingness and ability to take the most appropriate action based on what is known*. That is, data leads to good decision-making by the port authority, Administration or other organization that receives the data. This decision-making could relate to a range of topics beyond the usage in the Convention, such as targeting ships for port State control examinations, assigning resources, identifying trade trends and developing public policy.

Figure 2: DIKW Pyramid



1.9 Figure 2 illustrates that applying definitions to data gives meaning and transforms data into information. Section 2 of this Compendium standardizes definitions of the data elements used in the annex to the Convention. Similarly, applying structures reveals logical relationships and transforms information into knowledge. Section 3 of this Compendium standardizes the structure of the data elements. Lastly, values transform knowledge into the wisdom used to identify the most appropriate actions that support the data recipient's goals.

¹ Ackoff, R. (1989). From data to wisdom. *Journal of Applied Systems Analysis*, 16, 3-9.

1.10 Common definitions promote harmonization, ordering information with common structures promotes interoperability, and directing knowledge with common values creates communities with shared goals. These communities might be the agencies in an Administration, collections of ports, or regional and international groups. Harmonization, interoperability and community are crucial to the Organization's goals of leveraging technology, minimizing burdens on mariners, promoting implementation of the single window and helping stakeholders meet international standards.

1.11 A paper-based communications system could accomplish all of the processes described above. However, systems for electronic data exchange are inherently more efficient, continue to evolve and have a much greater potential for facilitation opportunities. Through this Compendium, the Organization seeks to facilitate trade by helping standardize electronic business processes used to comply with the Organization's data submission requirements while recognizing the responsibility to balance those requirements with the benefits they provide.

C Information security

1.12 Ship reporting necessitates electronic transmission of sensitive, private and proprietary information including, but not limited to, ship location and destination, cargo types and amounts, passenger names and identity data, and security-related information. This type of information could provide valuable intelligence for unauthorized persons seeking to conduct illegal or malicious acts.

1.13 Companies, ships' crews, agents, and port and Administration officials share the responsibilities to protect ship reporting information described in this Compendium. All persons involved in transmitting, receiving, responding, storing, analysing and protecting ship reporting information should be fluent in the information security and cyber-risk management techniques and requirements in, but not limited to:

- .1 national laws and regulations;
- .2 International Convention for the Safety of Life at Sea, as amended;
- .3 International Ship and Port Facility Security Code;
- .4 IMO MSC-FAL.1/Circ.1 – Securing and Facilitating International Trade;
- .5 IMO MSC-FAL.1/Circ.3 – Guidelines on Maritime Cyber Risk Management;
and
- .6 accepted national and international industry standards on information security.²

² Such as the World Customs Organization SAFE Framework of Standards and the International Organization for Standardization 28000 series of standards.

Section 2 The IMO Data Set

A *Standard IMO data elements*

2.1 Table 1 shows the Organization's definitions for the data elements of the IMO Data Set. The Organization documents these definitions in the Compendium to promote harmonization among different data models and to help ensure accurate transmission, receipt and response of electronic data exchange. Each data element receives a unique identifier for reference purposes. In addition, table 1 shows the correlation between each data element and the legacy paper forms used to record the information in paragraph 1.1.4 with a notation of the relevant form cell number.

2.2 Mapping legacy paper forms to an electronic data exchange environment necessitates a number of decisions to represent and utilize the data most efficiently. For example, in the legacy paper forms, designed for completion by hand, several data elements often populate a single cell, such as the numerous characteristics or markings of a particular cargo. In the electronic environment, each data element is discriminated. In addition, paper forms do not accommodate the efficiency of using attributes to distinguish different types of similar data. For instance, a person's possible attributes include agent, crewmember, security officer or passenger. Furthermore, repeated information, such as the IMO number, ship name, ship type, and arrival time and date, can be stored and repeated in electronic data exchange, whereas it must be re-entered in each case on a paper form.

2.3 The IMO Data Set includes some data elements not found on the legacy paper forms but which are required for electronic data exchange, such as the message header date-time stamp, unique identifiers and other requirements for message tracking and machine-to-machine communications.

B *Using the IMO data set*

2.4 The *Change Indicator* column shows the status of the data element in that row to help maintain the history of changes to the data set. The change indicator meanings are:

- .1 a plus sign (+) for an addition to the data set since the last edition;
- .2 a minus sign (-) for a deletion from the data set since the last edition; and
- .3 a hash sign (*) for changes to a data element since the last edition.

2.5 The *Data Number* column shows the unique number assigned to each data element for reference. The "IMO" prefix identifies the source of the data element and distinguishes it from other data model elements.

2.6 The *Data Element* column shows the standard name of each data element.

2.7 The *Definition* column shows the standard definition of each data element. Note, these definitions seek to satisfy technical details. Therefore, instead of the traditional definition, some definitions refer to the information location so that the system or software designer can determine the specific format detail requirements.

2.8 The *Correlation to IMO Standard Reporting* columns show the location of each data element in the traditional paper versions of the FAL declarations by cell number or other reference. An "X" in this column indicates a data element not described in the annex to the Convention or other sources but commonly used in electronic data exchange. Dark grey cell

shading identifies a data element needed to transmit electronic messages but not used in the traditional paper versions of the FAL declarations. Light grey cell shading identifies a data element not included in the data structure shown in section 3 because it derives from a combination of other data elements.

2.9 The *Format* column shows the required format of each data element for electronic data exchange purposes.

2.10 The format indicator meanings are:

- a alphabetic characters
- n numeric characters
- an alphanumeric characters
- a3 3 alphabetic characters, fixed length
- n3 3 numeric characters, fixed length
- an3 3 alphanumeric characters, fixed length
- a..3 up to 3 alphabetic characters
- n..3 up to 3 numeric characters
- an..3 up to 3 alphanumeric characters
- n..11,3 up to 11 numeric characters of which 3 positions for a decimal

Examples for a n..11,3 type:

- 12345678.123 (Valid)
- 123456789.123 (Invalid – too many digits before decimal point and too many digits in total)
- 12345678.1234 (Invalid – too many digits after decimal point and too many digits in total)

Numerical fields should be either a cardinal value (integer value), or a decimal value. The decimal separator is the decimal point ".", and no other symbols are permitted as a decimal separator. The decimal notation (with the decimal point) should only be used to indicate required precision. Triad separators, such as a comma, should not be used.

2.11 The *Code Lists* column identifies the source of specific standardized codes for the data element in that row. For example, ISO standard 3166-1, Codes for the representation of names of countries and their subdivisions, contains the internationally agreed list of two-character country codes. In some cases, cells in this column contain the phrase "To be defined" to identify a standardized code list that is envisioned in future use.

2.12 The *Business Rule* column identifies recommended procedures for satisfying specific data element formats and requirements by referencing a relevant business rule listed in section 4.

2.13 The link https://www.unece.org/cefact/recommendations/rec_index.html leads to the list of a list of UNECE trade facilitation recommendations.

Table 1: IMO Data Elements³

Change Indicator	Data Number	Data Element	Definition	Correlation to IMO Standard Forms									Format	Code lists	Business rules	
				General Declaration	Cargo Declaration	Ships Stores Declaration	Crew's Effects Declaration	Crew List	Passenger List	Dangerous Goods Manifest	Security Report	Waste Delivery in Port (MEPC.1/Circ.834/Rev.1)				
	IMO0001	Agent City	The city address of the referenced agent at port.	8							16	5		an..35		
	IMO0002	Agent Contact Name	The agent's employee contact name.	8	10	12	9	18	19		16	5		an..70		BR 23
	IMO0003	Agent country code	A code representing the country address of the referenced agent at port.	8							16	5		a2	EDIFACT codes (3207) - ISO 3166-1 alpha-2 code	
	IMO0004	Agent country sub-division name	The country sub-division of the referenced agent at port.	8							16	5		an..35		
	IMO0006	Agent email	The email address for the referenced agent at port.	8							16	5		an..50		
	IMO0007	Agent identification number	The recognized identification number used by the ship's agent at the port of notification.	8	10	12	9	18	19		16	5		an..17		
	IMO0008	Agent landline number	The landline telephone number for the referenced agent at port.	8							16	5		an..50		
	IMO0009	Agent mobile number	The mobile number for the referenced agent at port.	8							16	5		an..50		

³ For technical and consistency reasons, the text in the table is in English only. Refer to section 2.4 to 2.13 for column heading descriptions.

Change Indicator	Data Number	Data Element	Definition	Correlation to IMO Standard Forms									Format	Code lists	Business rules
				General Declaration	Cargo Declaration	Ships Stores Declaration	Crew's Effects Declaration	Crew List	Passenger List	Dangerous Goods Manifest	Security Report	Waste Delivery in Port (MEPC.1/Circ.834/Rev.1)			
	IMO0010	Agent name	The name of the agent at the port of arrival.	8	10	12	9	18	19	16	5		an..70		
	IMO0011	Agent postcode	An alphanumerical code representing the postal area of the referenced agent at port.	8						16	5		an..9		
	IMO0012	Agent street and number/P.O. Box	The postal delivery point such as street and number or post office box of the referenced agent at port.	8						16	5		an..256		
	IMO0013	Arrival/ departure code	A code in the message to show whether the information is submitted for the ship arrival or departure.	Tick Box	Tick Box	Tick Box		Tick Box	Tick Box				a1	A or D	
	IMO0014	Authentication date	The date of authentication.	23	10	12	9	18	19	16.1	6.5	Page 2	an..35		
	IMO0015	Authenticator location	The location of the person when submitting the security-related information.								6.4		an..17	UNLOCODE or 'At Sea'	
	IMO0016	Authenticator name	The name of the person attesting to the validity of the transmitted information.	23	10	12	9	18	19	16	6.1	Page 2	an..70		BR 23
	IMO0017	Authenticator party identification number	An identifying number, such as an agent identifier, of the party attesting to the validity of the transmitted information.	X	X	X	X	X	X	X	X	X	an..17		

Change Indicator	Data Number	Data Element	Definition	Correlation to IMO Standard Forms									Format	Code lists	Business rules
				General Declaration	Cargo Declaration	Ships Stores Declaration	Crew's Effects Declaration	Crew List	Passenger List	Dangerous Goods Manifest	Security Report	Waste Delivery in Port (MEPC.1/Circ.834/Rev.1)			
	IMO0019	Cargo brief description	A description of the type of cargo carried on the ship in general terms.	12							3.5		an..256		
	IMO0021	Transport equipment identification number	Marks (letters and/or numbers) which identify a transport equipment (e.g. containers, semi-trailers, swap bodies).		6						7		an..17	For containers this shall be the identification code as defined in ISO 6346.	
	IMO0022	Cargo item description of goods	A description of the referenced packaged cargo.		7								an..256		
	IMO0023	Cargo item gross volume	A measure of the gross volume, normally calculated by multiplying the maximum length, width and height of the cargo item.		9								n..16,6		BR 03 BR 04 BR 09 BR 18
	IMO0024	Cargo item gross weight	The combined weight or mass of the referenced packaged cargo and its packaging from the shipping data.		8								n..16,6		BR 02 BR 03 BR 09 BR 18
	IMO0025	Cargo item HS code	The standardized, international commodity code from the Harmonized Commodity Description and Coding System (HS) for the packaged cargo being reported.		7								an..18		

Change Indicator	Data Number	Data Element	Definition	Correlation to IMO Standard Forms									Format	Code lists	Business rules	
				General Declaration	Cargo Declaration	Ships Stores Declaration	Crew's Effects Declaration	Crew List	Passenger List	Dangerous Goods Manifest	Security Report	Waste Delivery in Port (MEPC.1/Circ.834/Rev.1)				
	IMO0026	Cargo item marks and numbers	An alphanumeric or symbolic identifier assigned by the shipper as a means to track cargo not carried in bulk.		6						7			an..512		
	IMO0028	Cargo item number of packages	A count of the type of package reported for the referenced cargo.		7									n..8		BR 03 BR 09
	IMO0029	Cargo item package type, coded	A code representing the type of package used for the referenced cargo.		7									an..2	EDIFACT codes (7065) = UN/ECE Recommendation 21 Annex VI	
	IMO0031	IMO Company number	The unique company identification number shown in the Continuous Synopsis Record (CSR).									1.10		an..17		
	IMO0032	IMO Company name	The name of the Company shown in the Continuous Synopsis Record (CSR).									1.9	1.5	an..70		
	IMO0033	Company security officer email	The contact email address for the company security officer shown in the ship security plan.									1.11		an..50		
	IMO0034	Company security officer landline number	The contact landline number for the company security officer shown in the ship security plan.									1.11		an..50		
	IMO0035	Company security officer mobile number	The contact mobile number for the company security officer shown in the ship security plan.									1.11		an..50		

Change Indicator	Data Number	Data Element	Definition	Correlation to IMO Standard Forms									Format	Code lists	Business rules	
				General Declaration	Cargo Declaration	Ships Stores Declaration	Crew's Effects Declaration	Crew List	Passenger List	Dangerous Goods Manifest	Security Report	Waste Delivery in Port (MEPC.1/Circ.834/Rev.1)				
	IMO0036	Company security officer name	The name of the company security officer shown in the ship security plan.									1.11		an..70		BR 23
	IMO0037	Crew effect description, coded	A code representing the type of the referenced crew's effects.				7							an..3	to be defined	
	IMO0039	Crew effect quantity onboard	The quantity or count of the type of the referenced crew's effects.				7							n..16,6		BR 03 BR 05 BR 09 BR 18
	IMO0040	Crew effects description	A description of the type of the referenced crew's effects.				7							an..256		
	IMO0041	Crew effects sequence number	A number representing the order of the referenced crew's effects in a list.				3							n..5		BR 09
	IMO0042	Crewmember rank or rating name	The description of the referenced crewmember's rank or rating on the ship.				6	9						an..70		
	IMO0043	Crewmember rank or rating, coded	A code representing the referenced crewmember's rank or rating on the ship.				6	9						an..3	to be defined	
	IMO0044	Person on board sequence number	A number indicating the order of the referenced person in a list.					6						n..5		BR 09

Change Indicator	Data Number	Data Element	Definition	Correlation to IMO Standard Forms									Format	Code lists	Business rules	
				General Declaration	Cargo Declaration	Ships Stores Declaration	Crew's Effects Declaration	Crew List	Passenger List	Dangerous Goods Manifest	Security Report	Waste Delivery in Port (MEPC.1/Circ.834/Rev.1)				
	IMO0045	Stowage onboard	The position or place where goods such as dangerous goods are stored on board the ship.								5			an..35		BR 11
	IMO0046	Dangerous goods carried indicator	A yes/no indicator whether the ship is carrying any dangerous goods.									3.5.1		n1	yes/no indicator (1=yes, 0=no)	
	IMO0047	Dangerous goods EmS number	The emergency schedule identified in the IMO EmS Guide – Emergency Response Procedures for Ships Carrying Dangerous Goods.								15			an..6	Comprises 2 values; 1 for spillage and 1 for fire. Possible values spillage: S-A to S-Z. Possible values fire: F-A to F-Z.	
	IMO0048	Dangerous goods flashpoint	The flashpoint of the referenced dangerous goods according to the IMO IMDG Code expressed in degrees Celsius or Fahrenheit.								12			n..8,2		BR 03 BR 09 BR 18
	IMO0049	Dangerous goods IMO hazard class	The class of the referenced dangerous goods from the IMO Hazard Class.								10			an..7		
	IMO0051	Dangerous goods marine pollutant type, coded	A code representing the type of marine pollutant properties for the referenced dangerous goods from the IMO IMDG Code or IBC Code / MARPOL Convention.								12			an..3	MARPOL (as defined in IMDG and IBC)	

Change Indicator	Data Number	Data Element	Definition	Correlation to IMO Standard Forms									Format	Code lists	Business rules	
				General Declaration	Cargo Declaration	Ships Stores Declaration	Crew's Effects Declaration	Crew List	Passenger List	Dangerous Goods Manifest	Security Report	Waste Delivery in Port (MEPC.1/Circ.834/Rev.1)				
	IMO0052	Dangerous goods mass	The mass of the referenced dangerous goods.								14			n..16,6		BR 03 BR 09 BR 16 BR 18
	IMO0053	Dangerous goods number of packages	The count of the number of packages of the referenced dangerous goods.								13			n..8		
	IMO0054	Dangerous goods packing group	The packing group according to the UN Recommendations on the Transport of Dangerous Goods and IMO IMDG Code.								11			an..3		
	IMO0055	Dangerous goods proper shipping name	The proper shipping name for goods under IMDG Code, or the product name for goods under IBC Code and IGC Code, or the bulk cargo shipping name for goods under IMSBC Code, or the name of oil for goods under Annex I to the MARPOL Convention.								9			an..256		
	IMO0056	Dangerous goods shipper's reference number	A number assigned by the shipper to track the referenced dangerous goods.								6			an..70		
	IMO0058	Dangerous goods subsidiary risks, coded	Any risk in addition to the class of the referenced dangerous goods according to the IMO IMDG Code.								10			an..4	To be defined	

Change Indicator	Data Number	Data Element	Definition	Correlation to IMO Standard Forms									Format	Code lists	Business rules	
				General Declaration	Cargo Declaration	Ships Stores Declaration	Crew's Effects Declaration	Crew List	Passenger List	Dangerous Goods Manifest	Security Report	Waste Delivery in Port (MEPC.1/Circ.834/Rev.1)				
	IMO0059	Dangerous goods technical specifications	The recognized chemical or biological name or other name currently used for the referenced dangerous goods.								9			an..256		
	IMO0060	Dangerous goods UNDG number	United Nations Dangerous Goods Identifier (UNDG) assigned by the UN Sub-Committee of Experts on the Transport of Dangerous Goods and shown in the IMO IMDG.								8			n4	UNDG Code	
	IMO0061	Dangerous goods volume	The volume of the referenced dangerous goods.								14			n..16,6		BR 03 BR 09 BR 14 BR 17 BR 18
	IMO0063	Date and time of arrival - actual	The date and time the ship arrives at the port of arrival.	3		3		3	3			2.2	2.2	an..35		BR 01
	IMO0064	Date and time of arrival - estimated	The date and time the ship is estimated to arrive at the port of arrival.	3		3		3	3			2.2	2.2	an..35		BR 01
	IMO0065	Date and time of departure - actual	The date and time the ship departs from the port of departure.	3		3		3	3				2.3	an..35		BR 01
	IMO0066	Date and time of departure - estimated	The date and time the ship is estimated to depart from the port of departure.	3		3		3	3				2.3	an..35		BR 01

Change Indicator	Data Number	Data Element	Definition	Correlation to IMO Standard Forms									Format	Code lists	Business rules	
				General Declaration	Cargo Declaration	Ships Stores Declaration	Crew's Effects Declaration	Crew List	Passenger List	Dangerous Goods Manifest	Security Report	Waste Delivery in Port (MEPC.1/Circ.834/Rev.1)				
	IMO0067	ISSC status, coded	An indicator of whether the ship has a valid Interim International Ship Security Certificate or valid International Ship Security Certificate.									3.1		n1	yes/no indicator (1=yes, 0=no)	
	IMO0068	Reason why ship has no valid ISSC or interim ISSC	The explanation of why the ship is not provided with a valid ISSC or a valid interim ISSC.									3.1.2		an..512		BR 15
	IMO0069	Reason why ship has no valid ISSC or interim ISSC, coded	A coded explanation of why the ship is not provided with a valid ISSC or a valid interim ISSC.									3.1.2		an..3	To be defined	BR 15
	IMO0070	ISSC contracting Government code	A code representing the nation that issued the ISSC or Interim ISSC.									3.1.1		a2	ISO 3166-1 alpha-2	
	IMO0071	ISSC expiry date	The expiry date shown on the ISSC or Interim ISSC.									3.1.1		an..35		
	IMO0075	Last port of call name	The name and country of the port immediately previous to the port of arrival.	6		5		5						an..256		BR 21
	IMO0076	Last port of call, coded	The code representing the port immediately previous to the port of arrival.	6		5		5						an5	UN/LOCODE	

Change Indicator	Data Number	Data Element	Definition	Correlation to IMO Standard Forms									Format	Code lists	Business rules	
				General Declaration	Cargo Declaration	Ships Stores Declaration	Crew's Effects Declaration	Crew List	Passenger List	Dangerous Goods Manifest	Security Report	Waste Delivery in Port (MEPC.1/Circ.834/Rev.1)				
	IMO0077	Measurement unit, coded	A code representing the units of measured for a referenced quantity on board, such as crew's effects, ship's stores, and cargo.		7 8 9	6 9	7				12 13 14		3 Page 2	an..3	EDIFACT codes (6411) = UN/ECE Recommendation 20	
	IMO0078	Message Date Time	The date and time the message is transmitted.											an..35		BR 01
	IMO0082	Message sender identifier	The identifier of the party transmitting the message.											an..17		
	IMO0083	Name of master	The name of the person in charge of the ship.	5	4									an..70		BR 23
	IMO0084	Next port of call, coded	The port immediately subsequent to the port of departure.	6		5							2.5	an5	UN/LOCODE	
	IMO0085	Next port of call, name	The name and country of the port immediately subsequent to the port of departure.	6		5							2.5	an..256		BR 21
	IMO0086	Number of crew	The count of persons actually employed for duties on board during a voyage in the working or service of a ship and included in the crew list.	13										n..4		BR 03 BR 09
	IMO0087	Number of passengers	The count of persons on board the ship who are passengers as defined by SOLAS.	14										n..4		BR 03 BR 09

Change Indicator	Data Number	Data Element	Definition	Correlation to IMO Standard Forms									Format	Code lists	Business rules
				General Declaration	Cargo Declaration	Ships Stores Declaration	Crew's Effects Declaration	Crew List	Passenger List	Dangerous Goods Manifest	Security Report	Waste Delivery in Port (MEPC.1/Circ.834/Rev.1)			
	IMO0088	Number of persons on board	The total number of persons on board the ship including crew and passengers.			6							n..4		BR 03 BR 09
	IMO0089	Passenger in transit indicator	A "yes/no" indicator of whether the referenced person is in transit to a foreign country.							18			n1	yes/no indicator (1=yes, 0=no)	
	IMO0091	Passenger port of embarkation, coded	The code representing the port from which the referenced person embarked the ship.							15			an5	UN/LOCODE	
	IMO0092	Passenger port of disembarkation, name	The name of the port from which referenced passenger plans to disembark.							17			an..256		BR 21
	IMO0093	Passenger port of disembarkation, coded	The code representing the port from which the referenced person plans to disembark the ship.							17			an5	UN/LOCODE	
	IMO0094	Passenger port of embarkation, name	The name of the port from which referenced passenger embarked.							15			an..256		BR 21
	IMO0095	Passenger visa number	The unique number assigned to the referenced person's visa by the issuing nation.							16			an..70		

Change Indicator	Data Number	Data Element	Definition	Correlation to IMO Standard Forms									Format	Code lists	Business rules
				General Declaration	Cargo Declaration	Ships Stores Declaration	Crew's Effects Declaration	Crew List	Passenger List	Dangerous Goods Manifest	Security Report	Waste Delivery in Port (MEPC.1/Circ.834/Rev.1)			
	IMO0096	Person country of birth, coded	The code representing the referenced person's country of birth as shown on the person's identity document.					12	9				a2	ISO 3166-1 alpha-2 code	BR 20
	IMO0097	Person date of birth	The referenced person's date of birth as shown on the person's identity document.					11	8				an..35		
	IMO0098	Person family name	The family name of the referenced person, such as a crewmember or passenger.				4	7	5				an..70		
	IMO0099	Person gender, coded	A code representing the gender of the referenced passenger.					13	10				an..3	EDIFACT codes (3499)	
	IMO0100	Person given name	The given name of the referenced person, such as a crew member or passenger.				5	8	6				an..70		
	IMO0101	Person identity or travel document expiry date	The expiry date shown on the referenced person's identity document.					17	14				an..35		
	IMO0102	Person identity or travel document issuing nation, coded	A code representing the nation issuing the referenced person's presented identity or travel document.					16	13				a2	ISO 3166-1 alpha-2 code	
	IMO0103	Person identity or travel document number	The unique control number assigned to the referenced person's identity or travel document by the issuing nation.					15	12				an..70		

Change Indicator	Data Number	Data Element	Definition	Correlation to IMO Standard Forms									Format	Code lists	Business rules
				General Declaration	Cargo Declaration	Ships Stores Declaration	Crew's Effects Declaration	Crew List	Passenger List	Dangerous Goods Manifest	Security Report	Waste Delivery in Port (MEPC.1/Circ.834/Rev.1)			
	IMO0104	Person identity or travel document type, coded	A code representing the type of the referenced person's presented identity or travel document.					14	11				an..3	EDIFACT codes (1001)	BR 10
	IMO0105	Person nationality, coded	A code representing the nationality of the referenced person as shown on the person's identity or travel document.					10	7				a2	ISO 3166-1 alpha-2 code	
	IMO0106	Person place of birth name	The name of the referenced person's place of birth as shown on the person's identity or travel document.					12	9				an..35		BR 20
	IMO0107	Person type, coded	A code representing the type of a person on board the ship, such as master, crew member or passenger.					X	X				an..3	EDIFACT codes (3035)	
	IMO0108	Port of arrival, coded	The code representing the port where the ship arrives.	2		2		2	2		2.1	Title	an5	UN/LOCODE	
	IMO0109	Port of arrival, name	A name and country of the port where the ship arrives.	2		2		2	2		2.1	Title	an..256		BR 21

Change Indicator	Data Number	Data Element	Definition	Correlation to IMO Standard Forms									Format	Code lists	Business rules	
				General Declaration	Cargo Declaration	Ships Stores Declaration	Crew's Effects Declaration	Crew List	Passenger List	Dangerous Goods Manifest	Security Report	Waste Delivery in Port (MEPC.1/Circ.834/Rev.1)				
	IMO0110	Port of call sequence number	A number indicating the order of a port of call on a list.									3.3		n..5		BR 09 BR 12
	IMO0111	Port of departure, coded	The code representing the port from which the ship departs.	2		2		2	2					an5	UN/LOCODE	
	IMO0112	Port of departure, name	A name and country of the port from which the ship departs.	2		2		2	2					an..256		BR 21
	IMO0113	Port of discharge, coded	The code representing the port of discharge for the referenced cargo.		5						4			an5	UN/LOCODE	
	IMO0114	Port of discharge, name	The name and country of the port of discharge for the referenced cargo.		5						4			an..256		BR 21
	IMO0115	Port of last waste delivery, name	The name and country of the last port where waste of any type was delivered.									2.6		an..256		BR 21
	IMO0116	Port of last waste delivery, coded	The code representing the last port where waste of any type was delivered.									2.6		an5	UN/LOCODE	
	IMO0117	Port of loading, coded	The code representing the port of loading for the referenced cargo.		5						3			an5	UN/LOCODE	
	IMO0118	Port of loading, name	The name and country of the port where the cargo was loaded on board the ship.		5						3			an..256		BR 21

				Correlation to IMO Standard Forms											
Change Indicator	Data Number	Data Element	Definition	General Declaration	Cargo Declaration	Ships Stores Declaration	Crew's Effects Declaration	Crew List	Passenger List	Dangerous Goods Manifest	Security Report	Waste Delivery in Port (MEPC.1/Circ.834/Rev.1)	Format	Code lists	Business rules
	IMO0119	Port of next waste delivery, name	The name and country of the next port where the ship plans to deliver waste of any type.									2.8	an..256		BR 21
	IMO0120	Port of next waste delivery, coded	The code representing the next port where the ship plans to deliver waste of any type.									2.8	an5	UN/LOCODE	
	IMO0121	Port of remaining waste delivery, coded	The code representing the port where the ship intends to deliver the remaining waste.									Page 2	an5	UN/LOCODE	BR 07
	IMO0122	Port of remaining waste delivery, name	The name and country of the port where the ship intends to deliver the remaining waste.									Page 2	an..256		BR 07 BR 21
	IMO0123	Port period of stay	The scheduled duration of stay in the port of arrival in days.			7							an..35		
	IMO0124	Previous port facility call start date	The start date of a previous port facility call.								3.3		an..35		
	IMO0125	Previous port facility call end date	The end date of a previous port facility call.								3.3		an..35		
	IMO0126	Previous port of call, name	The name and country of a previous port of call.	11							3.3		an..256		BR 21
	IMO0127	Previous port of call, coded	A code representing a previous port of call.	11							3.3		an5	UN/LOCODE	

Change Indicator	Data Number	Data Element	Definition	Correlation to IMO Standard Forms									Format	Code lists	Business rules
				General Declaration	Cargo Declaration	Ships Stores Declaration	Crew's Effects Declaration	Crew List	Passenger List	Dangerous Goods Manifest	Security Report	Waste Delivery in Port (MEPC.1/Circ.834/Rev.1)			
	IMO0128	Authenticator role, coded	A code providing the role of the person attesting to the validity of the transmitted information.	23	10	12	9	18	19	16	6.2	2.9	an..3	EDIFACT codes (3035)	
	IMO0129	RSO Name	The name of the Recognized Security Organization that issued the ISSC or Interim ISSC.								3.1.1		an..70		
	IMO0130	Security Plan approval indicator	A "yes/no" indicator of whether the ship is provided with an approved security plan on board.								3.1.2.1		n1	yes/no indicator (1=yes, 0=no)	
	IMO0131	Security, other matters to report	An explanation of any other security-related matters to report.								4.1.1		an..512		
	IMO0133	Ship additional security measures, coded	A code representing a description of special or additional security measures applied in lieu of those in the security plan.								3.3.2		an..3	To be defined	
	IMO0135	Ship additional security measures, description	The description of special or additional security measures applied in lieu of those in the security plan.								3.3.2		an..512		
	IMO0136	Ship call sign	A unique ship's identification used primarily for radio communications shown on the ship's IMO certificates.	1.3		1.3	1.3	1.3	1.3	1.3	1.6	1.6	an..7		

Change Indicator	Data Number	Data Element	Definition	Correlation to IMO Standard Forms									Format	Code lists	Business rules	
				General Declaration	Cargo Declaration	Ships Stores Declaration	Crew's Effects Declaration	Crew List	Passenger List	Dangerous Goods Manifest	Security Report	Waste Delivery in Port (MEPC.1/Circ.834/Rev.1)				
	IMO0137	Ship current security level, coded	A code representing the security level of the ship in the port of arrival as defined by the ISPS Code.									3.2		an..3	Code list to be defined Used codes according to ISPS code - SL1 - SL2 - SL3	
	IMO0138	Ship flag state, coded	The code representing the nationality of the ship shown on its IMO ship's certificate.	4	3	4	2	4	4	2	1.4	1.7	a2	ISO 3166-1 alpha-2 code		
	IMO0139	Ship gross tonnage	The gross tonnage shown on the ship's International Tonnage Certificate or other document issued by the Flag State or Recognized Organization.	9							1.8	1.3	n..14,3		BR 03 BR 09	
	IMO0140	Ship IMO number	The unique ship identification number shown on its IMO ship's certificate.	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.1	1.2	an..7			
	IMO0141	Ship INMARSAT call number	The unique, global satellite telephony and data communications address assigned to the ship and recorded in the INMARSAT Ships Directory.								1.7		an..14			
	IMO0142	Ship name	The ship's name shown on the IMO ship's certificate.	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.1	an..70			

Change Indicator	Data Number	Data Element	Definition	Correlation to IMO Standard Forms									Format	Code lists	Business rules
				General Declaration	Cargo Declaration	Ships Stores Declaration	Crew's Effects Declaration	Crew List	Passenger List	Dangerous Goods Manifest	Security Report	Waste Delivery in Port (MEPC.1/Circ.834/Rev.1)			
	IMO0143	Ship net tonnage	The net tonnage shown on the ship's International Tonnage Certificate or other document issued by the flag State or recognized organization.	10									n..14,3		BR 03 BR 09
	IMO0144	Location in port	The name of the berth, terminal or station where the ship is located in the referenced port.									2.1	an..70		
	IMO0145	Ship registry issue date	The date of issue shown on the Certificate of Registry.	7									an..35		
	IMO0146	Ship registry number	The unique alphanumeric identifier assigned to the Certificate of Registry by the issuing nation for tracking purposes.	7									an..35		
	IMO0147	Ship registry port, coded	A code representing the port of registry shown on the IMO ship certificate.	7							1.3		an5	UN/LOCODE	
	IMO0148	Ship registry port, name	The name and country for the Port of Registry shown on the IMO ship certificate.	7							1.3		an..256		BR 21
	IMO0149	Ship security level in a previous port, coded	A code representing the security level of the ship in a previous port as defined by the ISPS Code.								3.3		an..3	Code list to be defined Used codes according to ISPS code - SL1 - SL2 - SL3	

Change Indicator	Data Number	Data Element	Definition	Correlation to IMO Standard Forms									Format	Code lists	Business rules
				General Declaration	Cargo Declaration	Ships Stores Declaration	Crew's Effects Declaration	Crew List	Passenger List	Dangerous Goods Manifest	Security Report	Waste Delivery in Port (MEPC.1/Circ.834/Rev.1)			
	IMO0150	Ship security measures, coded	A code representing the security measures taken during ship-to-ship activity by the ship in lieu of the ship security procedures.								3.4.2		an..3	To be defined	
	IMO0151	Ship security measures, text	A description of the security measures taken during ship-to-ship activity by the ship in lieu of the ship security procedures.								3.4.2		an..256		
	IMO0153	Ship stay reference number	Reference number assigned by a port authority to the stay of a ship in the port.	X	X	X	X	X	X	X	X	X	an..35		
	IMO0154	Ship stores article name, text	A description of the referenced ship stores article.			8							an..512		
	IMO0155	Ship stores article name, coded	A code representing the referenced ship stores article.			8							an..18	To be defined	
	IMO0156	Ship stores location onboard, text	A description of the location on the ship of the referenced stores article.			10							an..256		
	IMO0158	Ship stores quantity onboard	The number, count or amount of an article of the referenced ship stores.			9							n..16,6		BR 03 BR 05 BR 09 BR 18
	IMO0159	Ship stores sequence number	A number indicating the order of the referenced ship stores article in a list.			X							n..5		BR 09

Change Indicator	Data Number	Data Element	Definition	Correlation to IMO Standard Forms									Format	Code lists	Business rules
				General Declaration	Cargo Declaration	Ships Stores Declaration	Crew's Effects Declaration	Crew List	Passenger List	Dangerous Goods Manifest	Security Report	Waste Delivery in Port (MEPC.1/Circ.834/Rev.1)			
	IMO0160	Ship type, coded	The type of the ship shown on its IMO ship's certificate.	1.1							1.5	1.4	an..4	UN/Recommendation 28	
	IMO0161	Ship-to-ship activity, coded	A code representing the ship-to-ship activity which has been carried out during the period of the last 10 calls.								3.4		an..3	To be defined	
	IMO0162	Ship-to-ship activity, text	A description of the ship-to-ship activity which has been carried out during the period of the last 10 calls.								3.4		an..512		
	IMO0163	Ship-to-ship activity end date	The end date of the ship-to-ship activity which has been carried out during the period of the last 10 calls.								3.4		an..35		
	IMO0164	Ship-to-ship activity location, name	The name and country to describe where the ship-to-ship activity has been carried out during the period of the last 10 calls.								3.4		an..256		BR 08
	IMO0165	Ship-to-ship activity sequence number	A number showing the order of ship-to-ship activity which has been carried out during the period of the last 10 calls.								3.4		n..5		BR 09 BR 12
	IMO0166	Ship-to-ship activity start date	The start date of the ship-to-ship activity which has been carried out during the period of the last 10 calls.								3.4		an..35		

				Correlation to IMO Standard Forms											
Change Indicator	Data Number	Data Element	Definition	General Declaration	Cargo Declaration	Ships Stores Declaration	Crew's Effects Declaration	Crew List	Passenger List	Dangerous Goods Manifest	Security Report	Waste Delivery in Port (MEPC.1/Circ.834/Rev.1)	Format	Code lists	Business rules
	IMO0167	Ship-to-ship activity location, coded	A code representing the location of the ship-to-ship activity which has been carried out during the period of the last 10 calls.								3.4		an5	UN/LOCODE	BR 08
	IMO0168	Subsequent port of call, name	The name and country of a scheduled subsequent port of call.	11									an..256		BR 21
	IMO0169	Subsequent port of call, coded	A code representing a subsequent port of call.	11									an5	UN/LOCODE	
	IMO0170	Transport contract number	A reference number to identify a document evidencing a transport contract (e.g. Bill of Lading).		B/L No.								an..70		
	IMO0172	Primary purpose of call, coded	A code representing the primary reason for the ship to enter the referenced port.								2.3		an..3	EDIFACT codes (8025)	
	IMO0173	Waste estimated amount to be generated	The estimated volume of waste to be generated between notification and next port of call (m3).									Page 2	n..16,6		BR 03 BR 07 BR 09 BR 13 BR 18
	IMO0174	Waste amount to be delivered	The volume of waste the ship plans to deliver (m3).									3	n..16,6		BR 03 BR 09 BR 13 BR 18

Change Indicator	Data Number	Data Element	Definition	Correlation to IMO Standard Forms									Format	Code lists	Business rules
				General Declaration	Cargo Declaration	Ships Stores Declaration	Crew's Effects Declaration	Crew List	Passenger List	Dangerous Goods Manifest	Security Report	Waste Delivery in Port (MEPC.1/Circ.834/Rev.1)			
	IMO0175	Waste amount retained	The volume of waste the ship plans to retain on board (m3).									Page 2	n..16,6		BR 03 BR 07 BR 09 BR 13 BR 18
	IMO0178	All waste delivery indicator	A "yes/no" indicator of whether the ship is delivering all waste on board the ship.									Page 2	n1	yes/no indicator (1=yes, 0=no)	
	IMO0179	Waste last delivery date	The last date when waste of any type was delivered.									2.7	an..35		
	IMO0180	Waste maximum dedicated storage capacity	Maximum dedicated storage capacity on board for this type of waste in cubic metres (m3).									Page 2	n..16,6		BR 03 BR 07 BR 09 BR 13 BR 18
	IMO0181	Waste reception facility point of contact	The name of the person to contact at the waste reception facility regarding ship waste delivery.									2.1	an..70		
	IMO0183	Waste type, coded	A code representing the type of waste being delivered.									3	an..3	To be defined	
	IMO0184	Port facility, coded	A code representing the port facility at the port of call.								2.1		an..17	UN/LOCODE-Facility identifier (e.g. NLR TM-0406)	BR 06
	IMO0185	Port facility, name	The name and country of a port facility at the port of call.								2.1		an..256		BR 22

Change Indicator	Data Number	Data Element	Definition	Correlation to IMO Standard Forms									Format	Code lists	Business rules	
				General Declaration	Cargo Declaration	Ships Stores Declaration	Crew's Effects Declaration	Crew List	Passenger List	Dangerous Goods Manifest	Security Report	Waste Delivery in Port (MEPC.1/Circ.834/Rev.1)				
	IMO0186	Dangerous goods additional information	A statement of any other information relevant to the characteristics or hazards of the referenced dangerous goods cargo item.								12		an..256			
	IMO0187	Dangerous goods package type, coded	A code representing the package type of the referenced dangerous goods.								13		an..2	EDIFACT codes (7065) = UN/ECE Recommendation 21 Annex VI		
	IMO0188	Previous port facility, name	The name and country of a previous port facility called at during a previous port call.									3.3	an..256		BR 22	
	IMO0189	Previous port facility, coded	A code representing a previous port facility called at during a previous port call.									3.3	an..17	UN/LOCODE-Facility identifier (e.g. NLRM-0406)	BR 06	
	IMO0190	Waste description	Additional description of the waste being delivered.										3	an..256		
	IMO0191	Voyage number	An operator-assigned reference code for the ship's voyage.	1.4	1.3	1.4	1.4	1.4	1.4	1.4			an..17			
	IMO0192	Message type, coded	Code specifying the name of a message type.										an..3	EDIFACT codes (1001)		
	IMO0194	Ship-to-ship activity location, latitude	The latitude (geographical coordinate) of the location of the ship-to-ship activity which has been carried out during the period of the last 10 calls.									3.4	an..10	ISO 6709	BR 08	

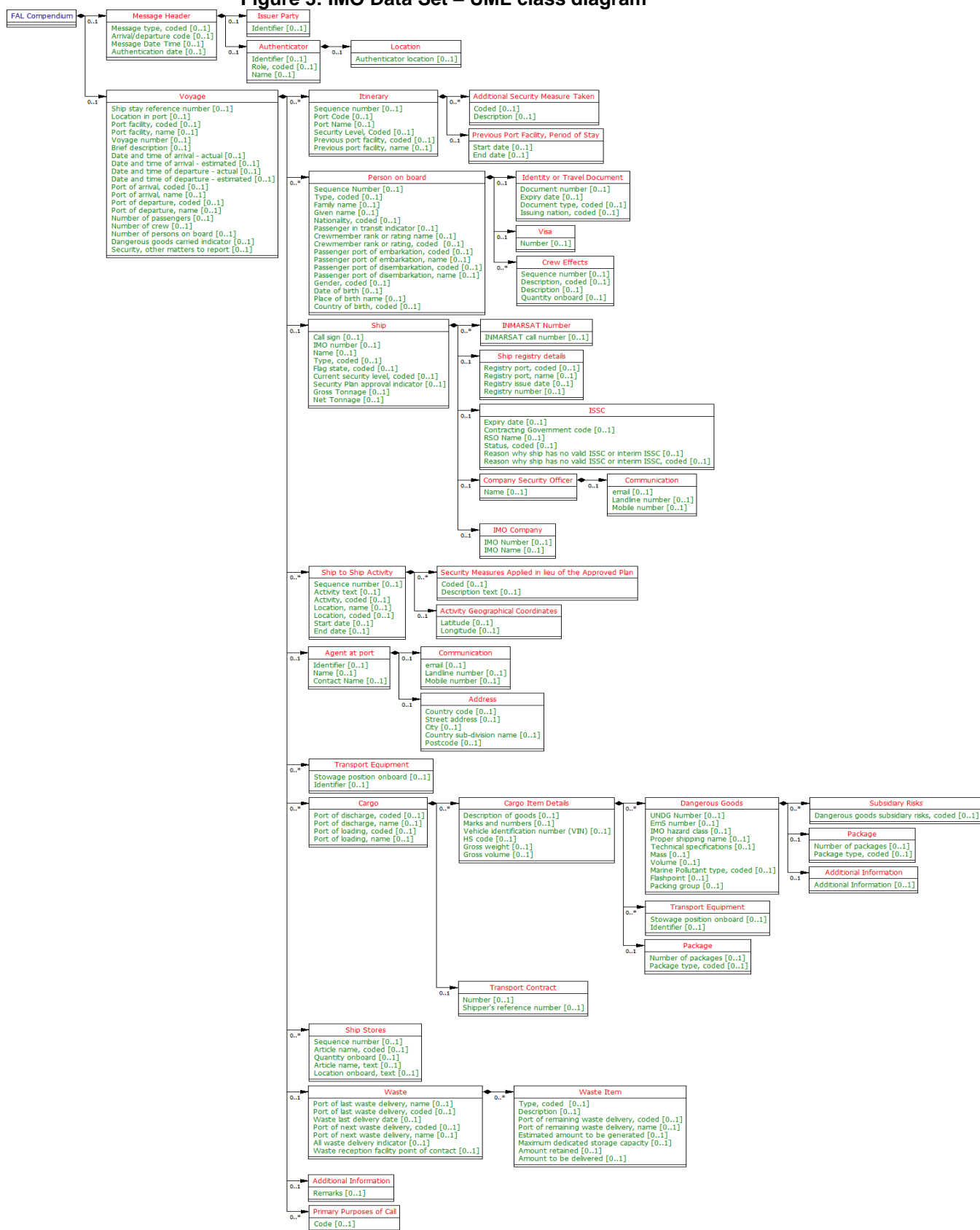
Change Indicator	Data Number	Data Element	Definition	Correlation to IMO Standard Forms									Format	Code lists	Business rules
				General Declaration	Cargo Declaration	Ships Stores Declaration	Crew's Effects Declaration	Crew List	Passenger List	Dangerous Goods Manifest	Security Report	Waste Delivery in Port (MEPC.1/Circ.834/Rev.1)			
	IMO0195	Ship-to-ship activity location, longitude	The longitude (geographical coordinate) of the location of the ship-to-ship activity which has been carried out during the period of the last 10 calls.								3.4		an..11	ISO 6709	BR 08
	IMO0196	Remarks	Statement of any other information relevant to ship arrival, stay or departure.	15									an..512		
	IMO0197	Vehicle identification number (VIN)	An alphanumeric identifier assigned by the shipper to identify a vehicle for tracking purposes.							7			an..17		

Section 3 The IMO Reference Data Model

A *Data structure*

3.1 Figure 3 shows the structure and relationships of the standard data elements. Please note that in the following diagram, the combination of the class name (in red) plus the attribute name (in green) provides the name to link with table 1.

Figure 3: IMO Data Set – UML class diagram⁴



⁴ For technical and consistency reasons, the text in the figure is in English only.

B Data structure business names

3.2 Table 2 shows the summary report of the data model structure.

Table 2: Data structure report⁵

Occurrence	Components	Reference	Comment
0 .. 1	Message Header		Message Header
0 .. 1	—Message type, coded		IMO0192
0 .. 1	—Arrival/departure code		IMO0013
0 .. 1	—Message Date Time		IMO0078
0 .. 1	—Authentication date		IMO0014
0 .. 1	Issuer Party		Issuer Party
0 .. 1	—Message sender identifier		IMO0082
0 .. 1	Authenticator		Authenticator
0 .. 1	—Authenticator party identification number		IMO0017
0 .. 1	—Authenticator role, coded		IMO0128
0 .. 1	—Authenticator name		IMO0016
0 .. 1	Location		
0 .. 1	—Authenticator location		IMO0015
0 .. 1	Voyage		Voyage
0 .. 1	—Ship stay reference number		IMO0153
0 .. 1	—Location in port		IMO0144
0 .. 1	—Port facility, coded		IMO0184
0 .. 1	—Port facility, name		IMO0185
0 .. 1	—Voyage number		IMO0191
0 .. 1	—Cargo brief description		IMO0019
0 .. 1	—Date and time of arrival - actual		IMO0063
0 .. 1	—Date and time of arrival - estimated		IMO0064
0 .. 1	—Date and time of departure - actual		IMO0065
0 .. 1	—Date and time of departure - estimated		IMO0066
0 .. 1	—Port of arrival, coded		IMO0108
0 .. 1	—Port of arrival, name		IMO0109
0 .. 1	—Port of departure, coded		IMO0111
0 .. 1	—Port of departure, name		IMO0112
0 .. 1	—Number of passengers		IMO0087
0 .. 1	—Number of crew		IMO0086
0 .. 1	—Number of persons on board		IMO0088
0 .. 1	—Dangerous goods carried indicator		IMO0046
0 .. 1	—Security, other matters to report		IMO0131
0 .. unbounded	Itinerary		Itinerary
0 .. 1	—Port of call sequence number		IMO0110
0 .. 1	—Last Port of Call, coded		IMO0076
	—Next Port of call, coded		IMO0084
	—Previous Port of call, coded		IMO0127
	—Subsequent Port of call, coded		IMO0169
0 .. 1	—Last Port of call, name		IMO0075
	—Next Port of call, name		IMO0085
	—Previous port of call, name		IMO0126
	—Subsequent Port of call, name		IMO0168
0 .. 1	—Ship security level in a previous port, coded		IMO0149
0 .. 1	—Previous port facility, coded		IMO0189
0 .. 1	—Previous port facility, name		IMO0188
0 .. unbounded	Additional Security Measure Taken		Additional Security Measure Taken
0 .. 1	—Ship additional security measures, coded		IMO0133
0 .. 1	—Ship additional security measures, description		IMO0135
0 .. 1	Previous Port Facility, Period of Stay		Previous Port Facility, Period of Stay
0 .. 1	—Previous port facility call start date		IMO0124
0 .. 1	—Previous port facility call end date		IMO0125
0 .. unbounded	Person on board		Person on board
0 .. 1	—Person on board sequence number		IMO0044
0 .. 1	—Person type, coded		IMO0107
0 .. 1	—Person family name		IMO0098
0 .. 1	—Person given name		IMO0100

⁵ For technical and consistency reasons, the text in the table is in English only.

Occurrence	Components	Reference	Comment
0 .. 1	—Person nationality, coded		IMO0105
0 .. 1	—Passenger in transit indicator		IMO0089
0 .. 1	—Crewmember rank or rating name		IMO0042
0 .. 1	—Crewmember rank or rating, coded		IMO0043
0 .. 1	—Passenger port of embarkation, coded		IMO0091
0 .. 1	—Passenger port of embarkation, name		IMO0094
0 .. 1	—Passenger port of disembarkation, coded		IMO0093
0 .. 1	—Passenger port of disembarkation, name		IMO0092
0 .. 1	—Person gender, coded		IMO0099
0 .. 1	—Person date of birth		IMO0097
0 .. 1	—Person place of birth name		IMO0106
0 .. 1	—Person country of birth, coded		IMO0096
0 .. 1	Identity or Travel Document		Identity or Travel Document
0 .. 1	—Person identity document number		IMO0103
0 .. 1	—Person identification or travel document expiry date		IMO0101
0 .. 1	—Person identity document type, coded		IMO0104
0 .. 1	—Person identify document issuing nation, coded		IMO0102
0 .. 1	Visa		Visa
0 .. 1	—Passenger visa number		IMO0095
0 .. unbounded	Crew Effects		Crew Effects
0 .. 1	—Crew effects sequence number		IMO0041
0 .. 1	—Crew effect description, coded		IMO0037
0 .. 1	—Crew effects description		IMO0040
0 .. 1	—Crew effect quantity onboard		IMO0039
0 .. 1	Ship		Ship
0 .. 1	—Ship call sign		IMO0136
0 .. 1	—Ship IMO number		IMO0140
0 .. 1	—Ship name		IMO0142
0 .. 1	—Ship type		IMO0160
0 .. 1	—Ship flag state, coded		IMO0138
0 .. 1	—Ship current security level, coded		IMO0137
0 .. 1	—Security Plan approval indicator		IMO0130
0 .. 1	—Ship gross tonnage		IMO0139
0 .. 1	—Ship net tonnage		IMO0143
0 .. unbounded	INMARSAT Number		INMARSAT Number
0 .. 1	—Ship INMARSAT call number		IMO0141
0 .. 1	Ship registry details		Ship registry details
0 .. 1	—Ship registry port, coded		IMO0147
0 .. 1	—Ship registry port, name		IMO0148
0 .. 1	—Ship registry issue date		IMO0145
0 .. 1	—Ship registry number		IMO0146
0 .. 1	ISSC		ISSC
0 .. 1	—ISSC expiry date		IMO0071
0 .. 1	—ISSC contracting Government code		IMO0070
0 .. 1	—RSO Name		IMO0129
0 .. 1	—ISSC status, coded		IMO0067
0 .. 1	—Reason why ship has no valid ISSC or interim ISSC		IMO0068
0 .. 1	—Reason why ship has no valid ISSC or interim ISSC, coded		IMO0069
0 .. 1	Company Security Officer		Company Security Officer
0 .. 1	—Company security officer name		IMO0036
0 .. 1	Communication		Communication
0 .. 1	—Company security officer email		IMO0033
0 .. 1	—Company security officer landline number		IMO0034
0 .. 1	—Company security officer mobile number		IMO0035
0 .. 1	IMO Company		IMO Company
0 .. 1	—Company IMO number		IMO0031
0 .. 1	—Company IMO name		IMO0032

Occurrence	Components	Reference	Comment
0 .. unbounded	Ship to Ship Activity		Ship to Ship Activity
0 .. 1	—Ship-to-ship activity sequence number		IMO0165
0 .. 1	—Ship-to-ship activity, text		IMO0162
0 .. 1	—Ship-to-ship activity, coded		IMO0161
0 .. 1	—Ship-to-ship activity location, name		IMO0164
0 .. 1	—Ship-to-ship activity location, coded		IMO0167
0 .. 1	—Ship-to-ship activity start date		IMO0166
0 .. 1	—Ship-to-ship activity end date		IMO0163
0 .. unbounded	Security Measures Applied in lieu of the Approved Plan		Security Measures Applied in lieu of the Approved Plan
0 .. 1	—Ship security measures, coded		IMO0150
0 .. 1	—Ship security measures, text		IMO0151
0 .. 1	Activity Geographical Coordinates		Activity Geographical Coordinates
0 .. 1	—Ship-to-ship activity location, latitude		IMO0194
0 .. 1	—Ship-to-ship activity location, longitude		IMO0195
0 .. 1	Agent at port		Agent at port
0 .. 1	—Agent identification number		IMO0007
0 .. 1	—Agent name		IMO0010
0 .. 1	—Agent Contact Name		IMO0002
0 .. 1	Communication		Communication
0 .. 1	—Agent email		IMO0006
0 .. 1	—Agent landline number		IMO0008
0 .. 1	—Agent mobile number		IMO0009
0 .. 1	Address		Address
0 .. 1	—Agent street and number/P.O. Box.		IMO0012
0 .. 1	—Agent City		IMO0001
0 .. 1	—Agent country sub-division name		IMO0004
0 .. 1	—Agent country code		IMO0003
0 .. 1	—Agent postcode		IMO0011
0 .. unbounded	Transport Equipment		Transport Equipment
0 .. 1	—Stowage position onboard		IMO0045
0 .. 1	—Transport equipment identification number		IMO0021
0 .. unbounded	Cargo		Cargo
0 .. 1	—Port of discharge, coded		IMO0113
0 .. 1	—Port of discharge, name		IMO0114
0 .. 1	—Port of loading, coded		IMO0117
0 .. 1	—Port of loading, name		IMO0118
0 .. unbounded	Cargo Item Details		Cargo Item Details
0 .. 1	—Cargo item description of goods		IMO0022
0 .. 1	—Cargo item marks and numbers		IMO0026
0 .. 1	—Vehicle identification number (VIN)		IMO0197
0 .. 1	—Cargo item HS code		IMO0025
0 .. 1	—Cargo item gross weight		IMO0024
0 .. 1	—Cargo item gross volume		IMO0023
0 .. unbounded	Dangerous Goods		Dangerous Goods
0 .. 1	—Dangerous goods UNDG number		IMO0060
0 .. 1	—Dangerous goods EmS number		IMO0047
0 .. 1	—Dangerous goods IMO hazard class		IMO0049
0 .. 1	—Dangerous goods proper shipping name		IMO0055
0 .. 1	—Dangerous goods technical specifications		IMO0059
0 .. 1	—Dangerous goods mass		IMO0052
0 .. 1	—Dangerous goods volume		IMO0061
0 .. 1	—Dangerous goods marine pollutant IMDG type, coded		IMO0051
0 .. 1	—Dangerous goods flashpoint		IMO0048
0 .. 1	—Dangerous goods packing group		IMO0054

Occurrence	Components	Reference	Comment
0 .. unbounded	Subsidiary Risks		Subsidiary Risks
0 .. 1	— <i>Dangerous goods subsidiary risks, coded</i>		IMO0058
0 .. 1	Package		Package
0 .. 1	— <i>Dangerous goods number of packages</i>		IMO0053
0 .. 1	— <i>Dangerous goods package type, coded</i>		IMO0187
0 .. 1	Additional Information		Additional Information
0 .. 1	— <i>Dangerous goods additional information</i>		IMO0186
0 .. unbounded	Transport Equipment		Transport Equipment
0 .. 1	— <i>Stowage position onboard</i>		IMO0045
0 .. 1	— <i>Transport equipment identification number</i>		IMO0021
0 .. 1	Package		Package
0 .. 1	— <i>Cargo item number of packages</i>		IMO0028
0 .. 1	— <i>Cargo item package type, coded</i>		IMO0029
0 .. 1	Transport Contract		Transport Contract
0 .. 1	— <i>Transport contract number</i>		IMO0170
0 .. 1	— <i>Dangerous goods shipper's reference number</i>		IMO0056
0 .. unbounded	Ship Stores		Ship Stores
0 .. 1	— <i>Ship stores sequence number</i>		IMO0159
0 .. 1	— <i>Ship stores article name, coded</i>		IMO0155
0 .. 1	— <i>Ship stores quantity onboard</i>		IMO0158
0 .. 1	— <i>Ship stores article name, text</i>		IMO0154
0 .. 1	— <i>Ship stores location onboard, text</i>		IMO0156
0 .. 1	Waste		Waste
0 .. 1	— <i>Port of last waste delivery, name</i>		IMO0115
0 .. 1	— <i>Port of last waste delivery, coded</i>		IMO0116
0 .. 1	— <i>Waste last delivery date</i>		IMO0179
0 .. 1	— <i>Port of next waste delivery, coded</i>		IMO0120
0 .. 1	— <i>Port of next waste delivery, name</i>		IMO0119
0 .. 1	— <i>All waste delivery indicator</i>		IMO0178
0 .. 1	— <i>Waste reception facility point of contact</i>		IMO0181
0 .. unbounded	Waste Item		Waste Item
0 .. 1	— <i>Waste type, coded</i>		IMO0183
0 .. 1	— <i>Waste description</i>		IMO0190
0 .. 1	— <i>Port of remaining waste delivery, coded</i>		IMO0121
0 .. 1	— <i>Port of remaining waste delivery, name</i>		IMO0122
0 .. 1	— <i>Waste estimated amount to be generated</i>		IMO0173
0 .. 1	— <i>Waste maximum dedicated storage capacity</i>		IMO0180
0 .. 1	— <i>Waste amount retained</i>		IMO0175
0 .. 1	— <i>Waste amount to be delivered</i>		IMO0174
0 .. 1	Additional Information		Additional Information
0 .. 1	— <i>Remarks</i>		IMO0196
0 .. unbounded	Primary Purposes of Call		Primary Purposes of Call
0 .. 1	— <i>Primary purpose of call, coded</i>		IMO0172

Section 4 Implementation business rules

A Business rules

4.1 Table 3 shows the business rules for using the IMO data elements.

Table 3: Business rules

BR No.	Description of the business rules	Used in IMO data element
BR 00	In general, free text should not be used in case coded information is available	
BR 01	Date time values are always provided with the indication of time zone	IMO0063 IMO0064 IMO0065 IMO0066 IMO0078
BR 02	The recommended unit to be used is KGM	IMO0024
BR 03	Leading zeroes shall not be used for numerical values. Trailing zeroes should only be used to indicate precision.	IMO0023 IMO0024 IMO0028 IMO0039 IMO0048 IMO0052 IMO0061 IMO0086 IMO0087 IMO0088 IMO0139 IMO0143 IMO0158 IMO0173 IMO0174 IMO0175 IMO0180
BR 04	The recommended units to be used are: LTR, MTQ	IMO0023
BR 05	The recommended units to be used for quantity values are: KGM, TNE, MTQ, LTR, NAR	IMO0039 IMO0158
BR 06	Port facility's codes can be found in the IMO GISIS maritime security database	IMO0184 IMO0189
BR 07	A value must be provided if the value for IMO0178 is "0"	IMO0121 IMO0122 IMO0173 IMO0175 IMO0180
BR 08	The ship-to-ship activity's location may be either LOCODE, latitude and longitude, or location name	IMO0164 IMO0167 IMO0194 IMO0195

BR No.	Description of the business rules	Used in IMO data element
BR 09	If filled, the respective value of data element must be more than 0	IMO0023 IMO0024 IMO0028 IMO0039 IMO0041 IMO0044 IMO0048 IMO0052 IMO0061 IMO0086 IMO0087 IMO0088 IMO0110 IMO0139 IMO0143 IMO0158 IMO0159 IMO0165 IMO0173 IMO0174 IMO0175 IMO0180
BR 10	The recommended values to be used are 36 (Identity card) or 101 (registration document) or 39 (Passport)	IMO0104
BR 11	<p>The recommended references to be used are: The description format is dependent on the cargo unit type (container, bulk, etc.) as well as the type of ship (ro-ro, deep sea container, feeder, etc.).</p> <p>According with ISO Standard 28005-2, it is a string with one upper case letter specifying the type of location code, a colon (:) and then the actual location code. The following clauses specify the type of coding, the coding letter and the format of the code.</p> <p>1) Containership – Code "C": A string of digits in the form BBRRTT where BB is the bay number, RR is the row number and TT is the tier number. This shall be coded according to ISO 9711-1. This includes leading zeros where necessary. As an example, "C:010212" means container in bay 1, row 2 and tier 12.</p> <p>2) Container feeder – Code "F": A string of digits in the form HHHTTRR where HHH is the hatch number, TT is the tier number and RR is the row number. All fields shall be filled with leading zeros. As an example "F:0010204" means hatch 1, tier 2 and row 4.</p> <p>3) Ro-ro – Code "R": A string of digits in the form DDBBBRRTT where DD is deck, BBB is bay, RR is row and TT is tier. As an example "R:030100204" means deck 3, bay 10, row 2 and tier 4.</p> <p>4) General cargo – Code "G": A string of characters in the format CCS or CCSDDD, where CC is the cell number, S is side of ship ("S" – starboard, "P" – port side and "C" – centre), and DDD is an optional code specifying deck (WED – weather deck, TDn – tween deck n, where n is a digit zero to nine and LOH is lower hold deck).</p> <p>5) Bulk vessel, including tankers – Code "B": The tank or hold number as numeral or other coding as used on board.</p>	IMO0045

BR No.	Description of the business rules	Used in IMO data element
	<p>6) Other – Code "O": Free text description. Another common practice for ro-ro is to use the following description format: DECK/LANE/POSITION(FOR or FRN)/LEVEL</p> <ul style="list-style-type: none"> • DECK number: counted from bottom to top • LANE number: counted from port to starboard • POSITION: distance measured in meters either from forward (FOR) or from frame number (FRN) to the centre of the cargo unit (which option is used has to be clearly indicated when providing the information) • LEVEL number: counted from bottom to top (on a single deck where it is possible to stow in multiple levels) <p>For tankers, the following description is commonly used: 3 characters for the tank number (01, 02, etc.) with a further indication: S (Starboard), P (Portside), C (Centre), F (Forward) or A (Aft).</p>	
BR 12	To be provided in chronological order with the most recent first.	IMO0110 IMO0165
BR 13	The unit to be used is MTQ.	IMO0173 IMO0174 IMO0175 IMO0180
BR 14	The unit to be used is LTR.	IMO0061
BR 15	An entry must be provided if the value for IMO0067 is "0".	IMO0068 IMO0069
BR 16	The unit to be used is KGM.	IMO0052
BR 17	The unit to be used is LTR.	IMO0061
BR 18	For all measurement items (e.g. volume, weight, mass, quantity) the indication of the unit is provided through IMO0077.	IMO0023 IMO0024 IMO0039 IMO0048 IMO0052 IMO0061 IMO0158 IMO0173 IMO0174 IMO0175 IMO0180

BR No.	Description of the business rules	Used in IMO data element
BR 19	For all free text items or data elements related to text, the provision of the language code is necessary	
BR 20	If the country of birth is not listed in code list 3166-1 the country of birth needs to be indicated in IMO0106 (Person place of birth)	IMO0096 IMO0106
BR 21	The name of a port always includes the port name and the country name. The format is: PortName, CountryName	IMO0075 IMO0085 IMO0092 IMO0094 IMO0109 IMO0112 IMO0114 IMO0115 IMO0118 IMO0119 IMO0122 IMO0126 IMO0168 IMO0148
BR 22	The name of facility name of a port of call includes the facility name and country of a port of call. The format is: FacilityName, PortName, CountryName	IMO0185 IMO0188
BR 23	The format to be used is: FamilyName, GivenName	IMO0002 IMO0016 IMO0036 IMO0083

Annex 1: World Customs Organization (WCO) Data Mapping

(To be developed)

Annex 2: United Nations Economic Commission for Europe (UNECE) Data Mapping

(To be developed)

Annex 3: International Organization for Standardization (ISO) Data Mapping

(To be developed)
