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Security management systems for the supply chain — Electronic port clearance (EPC) —

Part 1: Message structures

Systèmes de management de la sécurité pour la chaîne d'approvisionnement — Opérations portuaires assistées par systèmes électroniques —

Partie 1: Structures des messages

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2. www.iso.org/directives

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Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

The committee responsible for this document is ISO/TC 8, *Ships and marine technology*.

This first edition of ISO 28005-1 cancels and replaces the first edition of ISO/PAS 28005-1:2012.

ISO 28005 consists of the following parts, under the general title *Security management systems for the supply chain — Electronic port clearance (EPC)*:

— *Part 1: Message structures — Implementation of a maritime single window system*

— *Part 2: Core data elements*

Introduction

This part of ISO 28005 contains technical specifications that facilitate an efficient exchange of electronic information between ships and shore for coastal transit or port calls. This part of ISO 28005 is intended to cover the exchange of safety and security information required under the IMO Convention on Facilitation of International Maritime Traffic (FAL) and other international specifications as defined in ISO 28005-2. This part of ISO 28005 is based on XML and is intended as a complementary International Standard to the UN/EDIFACT (electronic data interchange for administration, commerce and transport) standards specified in the FAL compendium. Normally, implementers of this part of ISO 28005 are expected to also provide electronic interfaces supporting the use of UN/EDIFACT standards. Parties with economic interests related to the ship, cargo, passengers or crew, such as land transporters, receiving parties, insurers, financial entities can also find value in configuring their data reception capability to receive information formatted in accordance with this part of ISO 28005; however, this is not a requirement of this part of ISO 28005.

There are a number of other data exchanges related to port calls taking place that are outside of the scope of this part of ISO 28005 such as:

a) administrative- and trade-related data exchanges;

b) customs clearance for import and export of goods;

c) logistics arrangements for loading and discharge of cargo, including bay plans, mooring instructions, tug orders and other needs;

d) commercial exchanges related to freight costs, ownership and insurance of cargo. Ship operational exchanges related to the ordering of consumables, water, bunkers and spare parts, or the exchange of crews;

e) commercial exchanges related to port logs/statements of fact, calculations of demurrage and port fees.

The following International Standards and Technical Specifications (developed under Technical Committee ISO/TC 154) support information interchange between and within individual organizations with economic interests:

— ISO 8601 (date and time);

— ISO 6422 with ISO 8440;

— ISO 7372 (trade data elements directory);

— ISO 9735 (all parts) on electronic data interchange for administration, commerce and transport (EDIFACT);

— ISO/TS 20625;

— ISO/TS 15000-5 (ebCCTS core components);

— ISO 14533 (all parts) (long term signature profiles);

— ISO 17369 [statistical data and metadata exchange (SDMX)].

This part of ISO 28005, possibly together with other standards, can be used to implement a single window (SW) for port clearance. This SW can provide for: a) the simplified electronic means for clearance of ships in maritime transport; b) standardization in logistics activities, interface and information in overall maritime transport; c) improved maritime logistics efficiency and strengthened maritime logistics competitiveness of IMO member states. The SW standard for maritime transport is built upon general SW concepts and characteristics and has been expanded to integrate the requirements of maritime transport.

This part of ISO 28005 specifies the overall configuration of electronic port clearance (EPC) and defines the message structures for use in EPC. ISO 28005-2 contains definitions of core data elements used in the message structures.

Security management systems for the supply chain — Electronic port clearance (EPC) —

Part 1: Message structures

1 Scope

This part of ISO 28005 specifies necessary guidance information related to electronic port clearance (EPC), such as message transmission requirements, business scenarios, message structures and software requirements. Within the context of this part of ISO 28005, EPC incudes the activities that a user, such as a ship's master, a shipping agency or a ship owner undertakes to submit electronic data to appropriate organizations that approve or reject the clearance for the ship to enter or leave port.

Annex A provides implementation advice for a single window (SW). Annex B suggests a methodology for the development of a SW.

This part of ISO 28005 defines XML message structures for the transmission of information between a ship or its representatives and certain organizations responsible for the processing of the ship's port clearance request. The information intended to be transferred is that which is defined by the FAL Convention and other related international instruments as identified by ISO 28005-2. These message structures are primary intended for machine-to-machine data transfers.

This part of ISO 28005 allows different configurations of the SW, from a minimum solution to support basic clearance requirements to a more complex system to facilitate more extensive cooperation between ship and shore organizations.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 28005-2, *Security management systems for the supply chain — Electronic port clearance (EPC) — Part 2: Core data elements*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
acknowledgement
message sent from authorities giving the final acknowledgement of a request with the result of the request as an approval or denial

3.2
authority
entity or entities acting on behalf of the port state under national legislation