ISO/NP TR 22251

ISO/TC 122

Secretariat: **ISIRI (Iran, Islamic Republic of), JISC (Japan)**

Vote begins on: **2016-12-16**

Vote terminates on: **2017-03-10**

ISO/TC 122

Packaging

Emballages

NP Ballot : ISO/NP TR 22251

RFID Application Guidelines for Metal Returnable Transport Items

Source	
Project	
Medium	Electronic ballot on ISOTC
Note	n/a

Summary of questions:	
1a. Do you approve, disapprove or abstain on this NWIP?	Approve Disapprove * Abstain due to lack of consensus Abstain due to lack of national expert input
Please also select from one of the following options (note that if no option is selected, the default will be the first option):	Draft document will be registered as new project in the committee's work programme (stage 20.00) Draft document can be registered as a Working Draft (WD - stage 20.20) Draft document can be registered as a Committee Draft (CD - stage 30.00) Draft document can be registered as a Draft International Standard (DIS - stage 40.00)
In case of disapproval, do you believe that further study and consultations are needed first among committee members	Yes No

on this proposal as a preliminary work item before this proposal can be formally accepted?	
1b. Did you consult with the range of relevant stakeholders identified in the proposal in the development of this voting position and related comments?	Yes No
2. Standard(s), regulation(s), and other relevant documentation existing in our country, with any remarks concerning their application if necessary and consequences for global relevance, as well as copyright information on these documents, are attached:	Yes (references provided below) * No
3. Do you wish to add any additional comments?	Yes * No
4. We are committed to participating actively in the development of the project, at least by commenting on working drafts (P-members voting "Disapprove" in Qu. 1a may nevertheless nominate experts):	Yes (and we nominate an expert below) * No
	(*) A Comment is required for this answer value

Form 4: New Work Item Proposal

Circulation date: 2016-12-17 Closing date for voting: 2017-03-10	Reference number: ISO/NP TR 22251 (to be given by Central Secretariat) ISO/TC 122 N 846
Proposer (e.g. ISO member body or A liaison organization) JISC	
Secretariat JISC/ISIRI	

A proposal for a new work item within the scope of an existing committee shall be submitted to the secretariat of that committee with a copy to the Central Secretariat and, in the case of a subcommittee, a copy to the secretariat of the parent technical committee. Proposals not within the scope of an existing committee shall be submitted to the secretariat of the ISO Technical Management Board.

The proposer of a new work item may be a member body of ISO, the secretariat itself, another technical committee or subcommittee, an organization in liaison, the Technical Management Board or one of the advisory groups, or the Secretary-General.

The proposal will be circulated to the P-members of the technical committee or subcommittee for voting, and to the O-members for information.

☒ The proposer has considered the guidance given in the Annex C during the preparation of the NWIP.

Proposal (to be completed by the proposer)

Title of the proposed deliverable.

English title:

RFID Application Guidelines for Metal Returnable Transport Items

French title:

(In the case of an amendment, revision or a new part of an existing document, show the reference number and current title)

Scope of the proposed deliverable.

This guideline is provided to set forth the importance and reliability of the Returnable Transport Items (RTIs) together with their position in the supply chain (layered structure) and the data storage structure. Applications on metal RTIs using RFID are also described to define the characteristics of RFID required to realize a successful introduction of RFID into the supply chain.

Purpose and justification of the proposal*

In recent years, the demands for more advanced traceability and reduction of both distribution cost and logistics materials have been increasing in the supply chain worldwide, and the use of RFID in the supply chain is regarded as an ideal solution. In the actual logistics and material handling, a lot of materials and items are lost or missing due to a lack of efficient RTI management system and this is causing extra expenses to the companies from additional ordering costs. To deal with this problem, the ISO 17364 standard for the use of RFID was developed with the aim to visualize the supply chain where RTIs can be well controlled using RFD conforming to the international standard. With RFID in place for RTI management, companies can easily establish a remote batch reading and reduce a great amount of management cost when compared with a conventional bar code system. It should be noted that a wide range of RTIs, such as plate pallets and box pallets, are to be covered when implementing an RFID system. However, to obtain the cost benefits may be difficult just from the RTI asset management if the price of RTI itself is lower than the cost needed for the introduction of RFID. Considering this, the use of an RFID system intended to control high-priced RTIs is recommended. An RF tag applied on the metal does not usually work if it is an ordinary or commonly used RF tag, as the tag's reading distance becomes a lot shorter attributed to its inherited characteristics against metals. Though a variety of RF tags can be used with metals, the characteristics of RF tags, such as performance and durability or requirements for installation, that support metal RTIs are not yet specifically defined. This technical report specifies the requirements for the use of RFID on metal RTIs. Today, efficient metal RTI management is in high demand especially in the automobile industry where many parts and components are exclusively designed for automotive use. They are made strong and robust to guarantee the quality of transport and so usually more expensive than ordinary RTIs. In the automotive industry, as metal RTIs are put in a consistent logistics flow running through from parts suppliers to auto manufacturers, to identify the location of RTIs within the supply chain is indispensable. The use RFID is expected to pave the way for the creation of highly improved RTI management and enhanced operations by identifying the exact location of target item through item management. As a result, significant cost reduction and resource saving can be achieved by identifying the optimum number of RTIs just required for transportation.

Consider the following: Is there a verified market need for the proposal? What problem does this standard solve? What value will the document bring to end-users? See Annex C of the ISO/IEC Directives part 1 for more information. See the following guidance on justification statements on ISO Connect:
https://connect.iso.org/pages/viewpage.action?pageId=27590861

Preparatory work (at a minimum an outline should be included with the proposal)

☒ A draft is attached ☐ An outline is attached ☐ An existing document to serve as initial basis

The proposer or the proposer's organization is prepared to undertake the preparatory work required:

☒ Yes ☐ No

If a draft is attached to this proposal:

Please select from one of the following options (note that if no option is selected, the default will be the first option):

- ☒ Draft document will be registered as new project in the committee's work programme (stage 20.00)
- ☐ Draft document can be registered as a Working Draft (WD – stage 20.20)
- ☐ Draft document can be registered as a Committee Draft (CD – stage 30.00)
- ☐ Draft document can be registered as a Draft International Standard (DIS – stage 40.00)

Is this a Management Systems Standard (MSS)?

☐ Yes ☒ No

NOTE: if Yes, the NWIP along with the Justification study (see Annex SL of the Consolidated ISO Supplement) must be sent to the MSS Task Force secretariat (tmb@iso.org) for approval before the NWIP ballot can be launched.

Indication(s) of the preferred type to be produced under the proposal.

☐ International Standard ☐ Technical Specification

☐ Publicly Available Specification ☒ Technical Report

Proposed development track

☐ 1 (24 months) ☐ 2 (36 months - default) ☐ 3 (48 months)

Note: Good project management is essential to meeting deadlines. A committee may be granted only one extension of up to 9 months for the total project duration (to be approved by the ISO/TMB).

Known patented items (see ISO/IEC Directives, Part 1 for important guidance)

☐ Yes ☒ No

If "Yes", provide full information as annex

Co-ordination of work: To the best of your knowledge, has this or a similar proposal been submitted to another standards development organization?

☐ Yes ☒ No

If “Yes”, please specify which one(s):

A statement from the proposer as to how the proposed work may relate to or impact on existing work, especially existing ISO and IEC deliverables.
The proposer should explain how the work differs from apparently similar work, or explain how duplication and conflict will be minimized.

Though a variety of RF tags can be used with metals and how to use RFID for RTIs has been covered by existing standards, the characteristics of RF tags, such as performance and durability or requirements for installation, that support metal RTIs are not yet specifically defined.This technical report specifies the requirements for the use of RFID on metal RTIs.

A listing of relevant existing documents at the international, regional and national levels.

ISO 445, Pallets for materials handling - Vocabulary ISO/IEC 646, Information processing - ISO 7-Bit coded character set for information interchange ISO/IEC 15418, Information technology - Automatic identification and data capture techniques - GS1 Application Identifiers and ASC MH 10 Data Identifiers and maintenance ISO/IEC 15434, Information technology - Syntax for high-capacity automatic data capture (ADC) media ISO/IEC 15459-1, Information technology — Unique identifiers — Part 1: Unique identifiers for transport units ISO/IEC 15459-2, Information technology — Unique identifiers — Part 2: Registration procedures ISO/IEC 15459-3, Information technology — Unique identifiers — Part 3:

Common rules for unique identifiers ISO/IEC 15459-4, Information technology — Unique identifiers — Part 4: Unique identifiers for supply chain management ISO/IEC 15459-5, Information technology — Unique identifiers — Part 5: Unique identifiers for returnable transport items (RTIs) ISO/IEC 15459-6, Information technology — Unique identifiers — Part 6: Unique identifiers for product groupings ISO/IEC 15962, Information technology - Radio frequency identification (RFID) for item management - Data protocol: data encoding rules and logical memory functions ISO/IEC 15963, Information technology - Radio frequency identification for item management - Unique identification for RF tags ISO/IEC 18000-3, Information technology - Radio frequency identification for item management - Part 3: Parameters for air interface communications at 13.56 MHz ISO/IEC 18000-63, Information technology - Radio frequency identification for item management - Part 63: Parameters for air interface communications at 860 MHz to 960 MHz Type C ISO 17363, Supply chain application of RFID — Freight containers ISO 17364, Supply chain application of RFID — Returnable transport items (RTIs) ISO 17365, Supply chain application of RFID — Transport units ISO 17366, Supply chain application of RFID — Product packaging ISO 17367, Supply chain application of RFID — Product tagging ISO/IEC 19762-1, Information technology - Automatic identification and data capture (AIDC) techniques - Harmonized vocabulary - Part 1: General terms relating to AIDC ISO/IEC 19762-2, Information technology - Automatic identification and data capture (AIDC) techniques - Harmonized vocabulary - Part 2: Optically readable media ISO/IEC 19762-3, Information technology - Automatic identification and data capture (AIDC) techniques - Harmonized vocabulary - Part 3: Radio frequency identification (RFID) ISO/IEC 19762-4, Information technology - Automatic identification and data capture (AIDC) techniques - Harmonized vocabulary - Part 4: General terms relating to radio communications ISO 21067 Packaging – Vocabulary ISO/TR17370, Application Guideline on Data Carriers for Supply Chan Management ISO 18185-1 Freight containers - Electronic seals - Part 1: Communication protocol ISO 18185-2 Freight containers - Electronic seals - Part 2: Application requirements ISO 18185-3 Freight containers - Electronic seals - Part 3: Environmental characteristics ISO 18185-4 Freight containers - Electronic seals - Part 4: Data protection ISO 18185-5 Freight containers - Electronic seals - Part 5: Physical layer

Please fill out the relevant parts of the table below to identify relevant affected stakeholder categories and how they will each benefit from or be impacted by the proposed deliverable(s).

	Benefits/impacts	**Examples of organizations / companies to be contacted**
Industry and commerce large industry	Promoting RTIs for significant cost reduction and resource saving	Nothing particular
Industry and commerce SMEs	Promoting RTIs for significant cost reduction and resource saving	Nothing particular
Government		
Consumers		
Labour		
Academic and research bodies		
Standards application businesses		
Non-governmental organizations		

Other (please specify)		

Liaisons: A listing of relevant external international organizations or internal parties (other ISO and/or IEC committees) to be engaged as liaisons in the development of the deliverable(s). ISO/IEC JTC1 SC31	**Joint/parallel work:** **Possible joint/parallel work with:** ☐ IEC (please specify committee ID) ☐ CEN (please specify committee ID) ☐ Other (please specify)

A listing of relevant countries which are not already P-members of the committee.

Note: The committee secretary shall distribute this NWIP to the countries listed above to see if they wish to participate in this work

Proposed Project Leader (name and e-mail address) Akira SHIBATA, Mr shibata7825@ya2.so-net.ne.jp	**Name of the Proposer** (include contact information) Akira SHIBATA, Mr shibata7825@ya2.so-net.ne.jp

This proposal will be developed by:

☒ An existing Working Group: ISO/TC 122/WG 12

☐ A new Working Group:

(Note: establishment of a new WG must be approved by committee resolution)

☐ The TC/SC directly

☐ To be determined:

Supplementary information relating to the proposal

☒ This proposal relates to a new ISO document

☐ This proposal relates to the adoption as an active project of an item currently registered as a Preliminary Work Item

☐ This proposal relates to the re-establishment of a cancelled project as an active project

Other:

☒ Annex(es) are included with this proposal (give details)

Draft of RFID Application Guideline for Metal Returnable Transport Items Part1,2 3
Draft of RFID Application Guideline for Metal Returnable Transport Items Annexes Part 1,2,3

Additional information/question(s)