

Railway International Standards Center



Railway Technical Research Institute

Introduction

The Railway International Standards Center (RISC) of the Railway Technical Research Institute (RTRI) was established and commenced its activities on April 1, 2010. Our center was founded on the consensus of governments, railway operators, railway-related industries and standard development-related technical associations following discussions focused on the government's strategy concerning international standards. It is a membership organization which is composed of companies and organizations representing a broad spectrum of the railway industry and its technologies in Japan.

RISC's activities include the centralized management and deliberation related to international standards of the railway field. We propose strategies and plans valuable to the development of railway-related industries. We also gather and spread information, as well as help in the development of human resources involved in international standardization. Our work is influential in bringing about a safer, more eco-friendly and more technologically advanced future for both Japan and the rest of the world. In recent years, there has been an increase in activity related to the introduction of railway systems that are both energy efficient and environmentally friendly. Meanwhile, the railway business increasingly demands responses to technological progress as well as compliance with safety requirements. Worldwide, there has been the globalization of information and markets, as well as implementation of standardization within Europe thanks to EU integration. To meet all these requirements, appropriate technical standards are essential, and thus the development of international standards for railway businesses has become increasingly important. Our organization was established in response to the need to deal with IEC and ISO standards.

RISC (RTRI) took on the role of the national secretariat of IEC's Technical Committee 9: Electrical equipment and systems for railways (IEC/TC 9) in April 2004. As for ISO, a new technical committee (ISO/TC 269) was established in April 2012, and its three Sub Committees (SCs) were established in 2016. To deal with this movement RISC has also acted as the national secretariat for ISO/TC 17/SC 15, as well as ISO/TC 269 and its SCs. We have thus been able to quickly grasp the overall trends relating to IEC and ISO standards for the rail industry and to work diligently to keep up with the growing need for standards worldwide.

As the Director of RISC, I am committed to being a leader in international standardization, and to push forward the activities of the railway field in Japan.

I hope that our activities will contribute to the sustainable future development of the railway worldwide.



Toshiki Kitagawa

General Director,
Railway International
Standards Center

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Overview and History

Overview

In light of the rapid globalization of the railway market, the importance of strategic application of international standards has been widely recognized. The promotion of Japanese technologies will help to raise the current standards in many countries and to preserve the global environment by bringing high speed, high punctuality, high capacity, energy efficiency, safety, and reliability to the world.

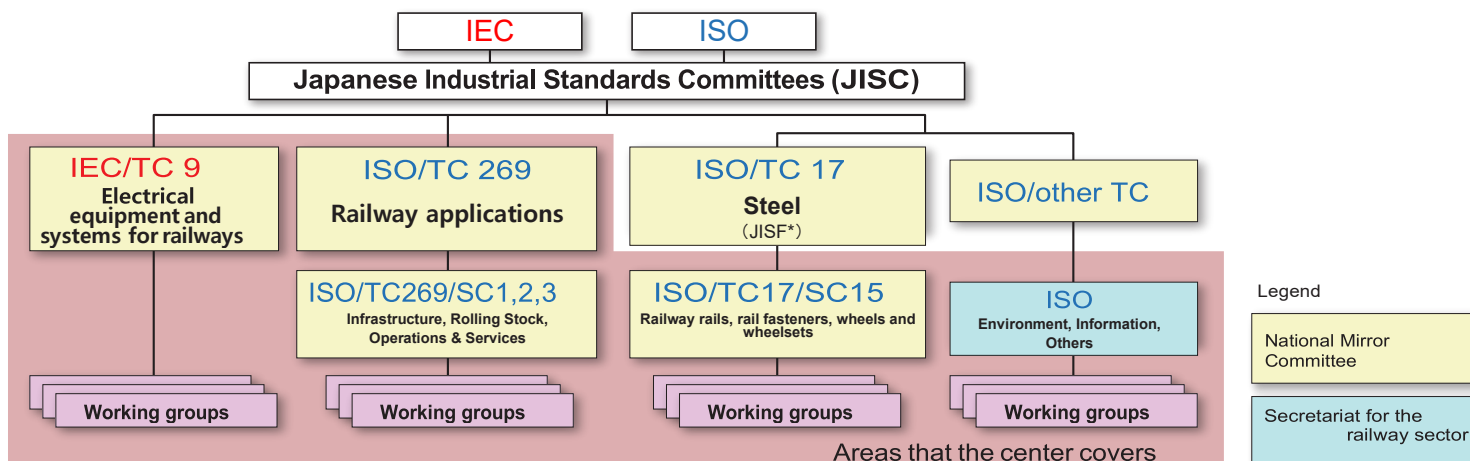
Our center was founded to answer these needs.

Based on the policies presented by the Railway Technology Standardization Committee which is supervised by the Ministry of Land, Infrastructure, Transport, and Tourism (MLIT), the center was set up to perform the role of national secretariat of IEC/TC 9 and ISO/TC 17/SC 15, and to provide wide reaching but unified management of railway-related ISO committee activities.

In July 2012, the center took over the role of national secretariat for the newly established ISO/TC 269 reinforcing the domestic deliberation body for ISO/IEC standards.

The main activities carried out by our center include examination, deliberation, proposals, and information management related to international standardization.

The center is operated with the support of its members including domestic railway operators and various railway industries.



*JISF: The Japan Iron and Steel Federation

Scope of Railway International Standards Center (As of 2024)

History

- Jan. 1995 World Trade Organization (WTO) establishment
- Oct. 2000 MOT* establishes International Standards Investigation Committee
- Jul. 2001 RTRI sets up International Standards Section, starting operations as the secretariat of the International Standards Investigation Committee and IEC/TC 9
- Apr. 2004 IEC/TC 9 national secretariat is transferred from IEEJ** to RTRI
- Apr. 2005 International Standards Section is renamed International Standards Investigation Center
- Jul. 2009 RTRI sets up the preparation office for the Railway International Standards Center
- Apr. 2010 RTRI establishes the Railway International Standards Center
- May 2010 The ISO/TC 17/SC 15 national secretariat transfers from the Japan Railway Civil Engineering Association to RTRI
- Apr. 2011 RTRI becomes a public interest incorporated foundation
- Jul. 2012 RTRI takes over ISO/TC 269 national secretariat
- Apr. 2016 RTRI takes over ISO/TC 269/SC 1, 2, 3 national secretariats

*MOT: Ministry of Transport (Presently MLIT)

**IEEJ: The Institute of Electrical Engineers of Japan

Objectives and Scope of Activities

Objectives

RISC (The Railway International Standards Center) aims to enhance the safety of rail transportation and foster the development of railway technologies by engaging in international railway standardization.

Scope of Activities

The main tasks of RISC are as follows:

1. Preparation of technical draft documents related to international railway standards;
2. Proposal of international standardization items related to railways;
3. National secretariat for IEC/TC 9, ISO/TC 269, ISO/TC 269 /SC 1, 2, 3, and ISO/TC 17/SC 15;
4. Strategy and planning related to international railway standards;
5. Proposal of harmonization of domestic standards with international standards;
6. Analysis and gathering of information on international railway standards as well as provision of technical information to persons involved in the industry;
7. Provision of information on Japanese railway technology to overseas parties, with the aim of promoting international standardization;
8. Improvement of railway personnel's awareness of international railway standardization, and promotion of activities for human resource development;
9. Cooperation with overseas parties regarding international railway standardization.



ISO/TC 269 Plenary Meeting (2023, Tokyo)

Management

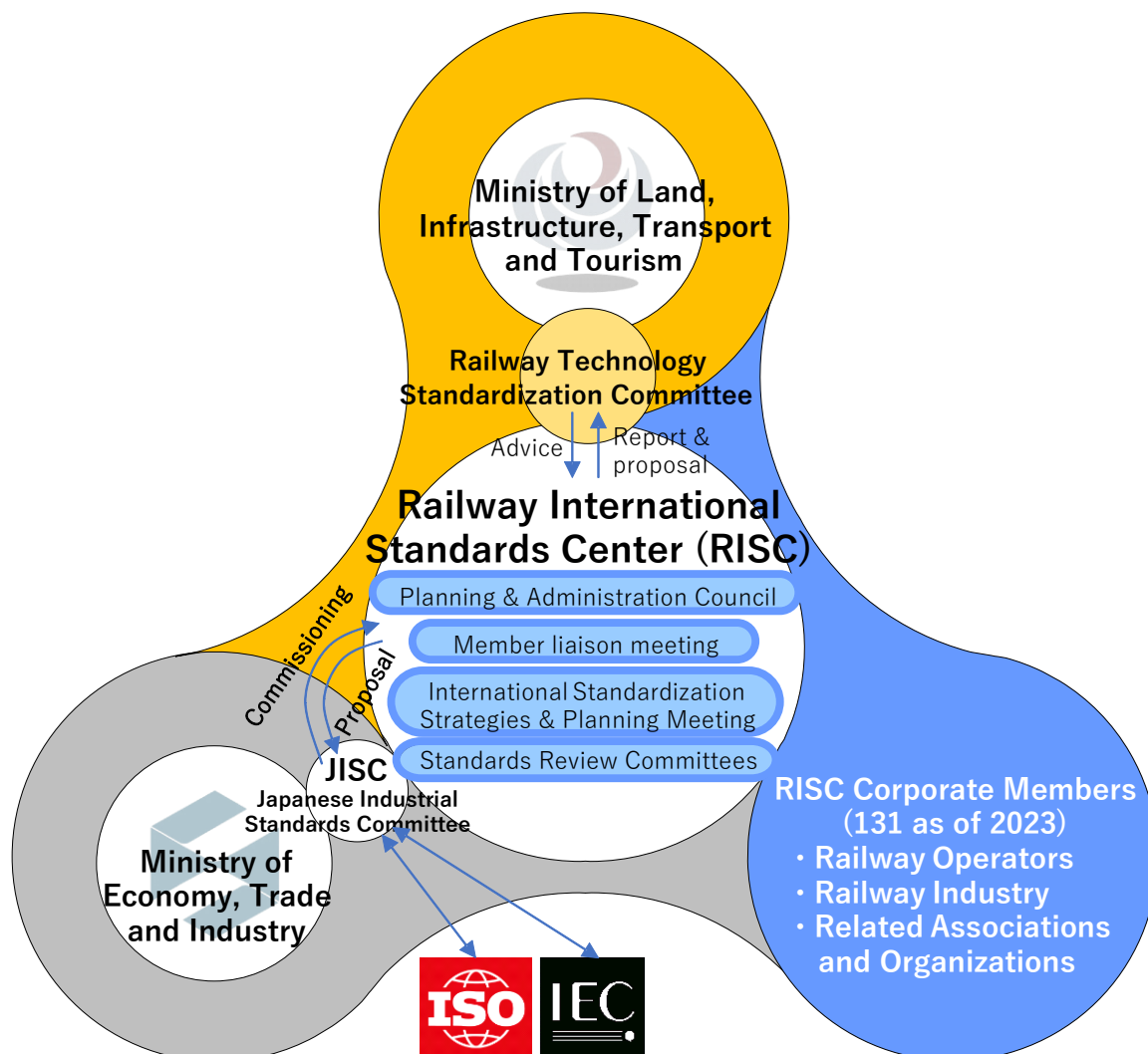
The management policies of RISC are determined by the Board of Directors and Board of Trustees of RTRI, taking into account the discussions held in the key meetings of the center (the Planning & Administration Council and the International Standardization Strategies & Planning Meeting). The center also organizes several standards review committees to deal with the technical details of international standards.

The Planning & Administration Council discusses business plans and reports, budgets, and membership admissions for the center.

The International Standardization Strategies & Planning Meeting explores strategies and plans related to international standards, and enables the exchange of information among attendees. Based on discussions, proposals and reports are submitted to the Railway Technology Standardization Committee. The standards review committees for IEC/TC 9, ISO/TC 269, ISO/TC 269 /SC 1, 2, 3, and ISO/TC 17/SC 15 gather regularly to discuss the technical details of international standards.

Organization

Organization and related meetings of RISC



International Standards Deliberations

Mirror committees and working groups convene to deliberate on international standards.

IEC/TC 9

Examples of working groups operating under IEC/TC 9 are as follows: (As of 2024)

- WG 40 Railway applications-Urban Guided Transport Management and Command/Control Systems (IEC 62290 series)
- WG 43 Railway applications - Train communication network (TCN) (IEC 61375 series)
- WG 48 ODIS - On board Driving Information System (IEC 62625 series)
- WG 50 Railway applications – Fixed installations – Electronic power converter (IEC 62590 series)
- JWG 51 Fuel cell systems for railway applications linked to TC 105 (IEC 63341 series)
- PT 63438 Railway applications - Fixed installations – Protection principles for AC and DC electric traction power supply systems
- PT 63452 Railway applications - Cybersecurity
- PT 63453 Railway applications - Current collection systems - Validation of simulation of the dynamic interaction between pantograph and overhead contact line
- PT 63488 Railway applications - Technical criteria for the coordinations in neutral-section passing system for train
- PT 63498 System Energy Efficiency
- PT 641 Railway applications - Fixed installations - Requirements for the validation of simulation tools used for the design of traction power supply systems
- MT 60349 Electric traction - Rotating electrical machines for rail and road vehicles (IEC 60349 series)
- MT 62278 Revision of IEC 62128 series (IEC 62278 series)
- MT 62427 Railway applications – Compatibility between rolling stock and train detection systems
- MT 62888 Railway applications – Energy measurement on board trains

ISO/TC 269

Examples of working groups operating under ISO/TC 269, are as follows: (As of 2024)

- WG 6 Fire protection (ISO 9828 series)
- WG 8 Platform barrier systems (ISO 18298)
- SC 1/WG 2 Track quality evaluation (ISO/TR 8955, etc.)
- SC 1/WG 3 Rail welding (ISO 23300 series)
- SC 1/WG 7 Fastening systems (ISO 22074 series, ISO/TS 18973)
- SC 2/WG 1 Railway braking (ISO 20138 series, etc.)
- SC 2/WG 2 Heating, Ventilation and Air Conditioning (HVAC) systems (ISO 19659 series, etc.)
- SC 2/WG 11 Structural requirements (ISO 10395, ISO 10516)
- SC 3/WG 1 Planning of operational concepts for natural disasters (ISO 22083, etc.)
- SC 3/WG 3 Railway timetabling (ISO 24675 series)

Exploring Strategies and Plans

International standardization proposals

- Submission of proposals for international standardization

Gathering and Disseminating Information

Gathering, Analyzing, and Supplying IEC and ISO Information

- Submission of proposals for international standardization
- Promotion of cooperation between Europe, the United States, Asia and the rest of the world on standardization activity in the railway industry
- Organization of a railway working group that exchanges information between JISC and the European Committee for Electrotechnical Standardization (CENELEC)/the European Committee for Standardization (CEN)

Disseminating Information on Japanese Railway Technologies to Send Overseas

- Provision of information on our international standardization activities on our English language website

Human Resource Development

Seminars and group work trainings

- Organization of international standards seminars for railway industry members
- Collaboration with the Japanese Standards Association and other organizations to hold such seminars
- Conducting group work training for center staff and center members



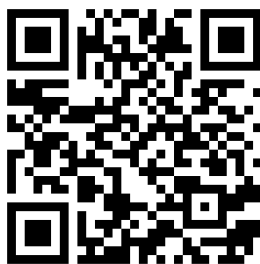
International standards seminar (2024)



Group work training (2023)



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