INTERNATIONAL COMPETENCE CENTRE RAIL GmbH

The «HIGH» SCHOOL for INTERNAL IRIS AUDITORS

AGENDA

The fastest track to truly understand the requirements of ISO 22163:2023 as well as the IRIS certification system.

(ISO 22163:2023 & IRIS Certification® Performance Assessment: 2023)

ENGLISH Version *(August 2023)*

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Explanation of color codes:
Red = exercises
Blue = process flow charts
Green = speeches

Agenda

Day 1:

08:30 **Introduction**

Welcome, Introduction, training objectives, expectations,
Mini Interview, expectations, seminar rules,
the IRIS objectives, specific features of the railway sector,
IRIS history and statistics, Overview about IRIS Guidelines

10:00 **BREAK**

10:15 **IRIS ASSESSMENT METHODOLOGY**

Quality Performance Levels

Thresholds for Quality Performance Levels

IRIS Evaluation Methodology

Knock-out items

IRIS scoring methodology

Enabler Evaluation: IRIS Assessment Sheet

Assessment Scheme – 5 maturity levels

Exercise 1: Assessment Scheme (15')

Scoring principles

Process Performance Evaluation (PPE)

Application of Process Performance Evaluation

11:15 **BREAK**

11:30 **Evaluation of Customer Perception Performance**

Application of Customer Perception

Exercise 2: Customer perception workshop (15')

12:30 **LUNCH**

13:30 **Overview of requirements for the rail industry**

IRIS elements integrated in ISO-structure

Chapter 0: Introduction

Process approach

Definitions

The Customer- Supplier value chain

Process focus

Process illustrations

Plan-Do-Check-Act cycle

PDCA board

Action plan

Plan for counter actions

Risk based thinking

Classification of external provided products and services

Classification of external provider

Classification of projects

15:00 **BREAK**

15:15 **Chapter 1-3: Scope, normative references, terms + abbreviations**

Chapter 4: Context of the organization, Process Review (9.4), Management Review (9.3)

Understanding the organization and its context (4.1)

Social responsibility (4.1.2)

Stakeholderanalysis

business planning (4.1.1)

strategic (annual) business planning cycle

Process Reviews (9.4)

Management Review (9.3)

Determining the scope of the quality management system (4.3)

Quality management system and its processes (4.4)

Overview about mandatory and optional required processes

Hierarchical process structure and „Process landscape“

16:15 **BREAK**

16:30 **Chapter 5: Leadership, Quality objectives (6.2), Awareness (7.3)**

Quality policy (5.2.3)

Quality objectives and planning to achieve them (6.2)

Awareness (7.3)

Organizational roles, responsibilities, and authorities (5.3.1)

Exercise 3: Roles of process owner (15')

Chapter 6: Planning

Actions to address risks and opportunities (6.1)

Speech about CC-Rail IRIS Guideline 1:2022 RISK- AND OPPORTUNITY MANAGEMENT

Examples of preventive, mitigation, containment & corrective actions

Risk and opportunity management process

Planning of risk responses

Relations between risk management and QDC

Risk management at four fields

Business risks

Business continuity (6.1.4)

around 18:00 **wrap-up and finish of day 1**

Day 2:

08:30 recap of yesterday and outlook for today

Chapter 7: Support

Resources (7.1)

Resource planning, approval & controlling process

Monitoring and measuring resources (7.1.5)

Process for monitoring and measuring resources & critical tools

Organizational knowledge (7.1.6)

Knowledge Obsolescence

10:15 **BREAK**

10:30 **Competence (7.2)**

Process for competence management

Skill matrix

technical, social and individual skills

Communication (7.4)

Project communication management (8.1.3.8)

Customer communication (8.2.1.1)

Communication concept

Documented information (7.5)

Process for control of documented information

Hierarchy of documented information

Record retention schedule

12:00 **Lunch**

13:00 **Chapter 8: Operation**

Innovation Management (8.1.1.1)

Planning of the transfer of processes (8.1.1.2)

Process for planning of the transfer of processes

Requirement management (8.2)

Subordinate concept of requirements for products and services

Operational- and Integration Maturity

Quality Engineering – maturity model

Exercise 4: QA-Methods (15')

Planning of QA methods for product, (manufacturing) process &. purchased parts approvals (PPPA)

Application of requirements management

Process to manage requirements

Requirements traceability matrix

critical product characteristics

15:00 **BREAK**

15:15 **Tender management (8.1.2)**

Process for tender management

Project risks: monetary analysis of risks

16:00 **BREAK**

Exercise 5: case study - Project FMEA (90')

around 18:00 **wrap-up and finish of day 2**

Day 3:

08:30 recap of yesterday and outlook for today

Chapter 8: Operation (cont')

Project management (8.1.3)

Speech about IRIS Guideline 10:2021 Project management

Application of project management principles

Project-driven organization

Process for project initiation & planning

Harmonized functional planning

10:00 **5' BREAK**

Process for project execution & closure

Project phases, applicable processes & and gates

Gate acceptance criteria

Exercise 6: Workshop - Gate checklist (15')

11:00 **BREAK**

11:15 **Chapter 8: Operation (cont')**

Configuration management (8.1.4.1)

Definitions and Error-notice

Product breakdown structure and identification of configuration units

Exercise 7: Workshop - critical product characteristics of a cable

Speech about GUIDELINE 8:2016 CONFIGURATION AND CHANGE MANAGEMENT

Configuration control

Configuration management process

Change control (8.1.4.2)

Change control process

Identification and traceability (8.5.2)

Exercise 8: Workshop - configuration management (20')

12:30 **Lunch**

13:30 **Chapter 8: Operation (cont')**

Design and development of products and services (8.3)

Design and development process

Design Reviews (8.3.4.2)

Selection criteria for Design Reviews

Verification and validation of requirements

Design Verification & Validation Tests (8.3.4.5)

Design and development outputs (8.3.5.1)

14:30 **BREAK**

14:45 **Control of externally provided processes, products and services (8.4)**

Purchasing Process Landscape

Speech about UNIFE commitment for the supply chain 2013

Sub-process: targeting of external Key Provider

Process for externally provided processes, products and services

Supplier selection

Parts approval

Incoming goods and incoming goods inspections

Management of non-conforming parts

Monitoring of delivery performance

Supplier development

16:15 **BREAK**

16:30 **Production and service provision (8.5)**

Controlled conditions in production and service provision

Production scheduling/ resource /capacity planning

Deferred work

Control of production equipment

Identification &. Traceability (see also configuration control)

Process validation

Handling of third-party property

Product preservation

Production change control

Process for production and service provision

Preventive Maintenance of Infrastructure (Chapter 7.1.3)

Concessions vs. deviation permits

around 18:00 **wrap-up and finish of day 3**

Day 4:

08:30 recap of yesterday and outlook for today

08:45 **Chapter 8: Operation (cont')**

Special Processes (8.5.1.3)

Speech about Guideline 6: 2020 SPECIAL PROCESSES

Management of special processes

Process Risk

Process FMEA: foundry process of track pads for excavators

Process FMEA template & inputs

Manufacturing process flow chart

SIPOC

Cause / effect diagram (Fishbone / Ishikawa)

Risk evaluation scheme

Process-FMEA- results

09:45 **BREAK**

10:00 **Chapter 8: Operation (cont')**

Post-delivery activities (8.5.5)

Process for post-delivery activities

Release of products and services (8.6)

Inspection and test planning

Control of nonconforming outputs (8.7)

Control of nonconforming outputs

Customer Concession

Overview: Non-conformity

5' BREAK

11:15 **Chapter 8: Operation (cont')**

Reliability, Availability, Maintainability, Safety & Life Cycle Cost (8.8)

Speech about Guideline 4: 2016 RAMS / LCC

RAMS / LCC – activities

RAM Life Cycle

Bathtub curve

Availability

FRACAS

FRACAS – Lessons Learned

Maintenance Measures

Maintenance Types

Conditioned Based Maintenance

Maintainability

Life Cycle Cost Definition; LCC cost elements

Life cycle costing

Process to manage RAM / LCC - activities

Process to manage product safety – activities

Product safety – the V-model (EN 50126)

General safety rules to be considered by Engineers

13:15 **First Article Inspection (8.9)**

Speech about Guideline 2: 2022 FIRST ARTICLE INSPECTION

Process for first article inspection (FAI)

FAI – Report (example)

Obsolescence management (8.10)

Speech about Guideline 5: 2012 OBSOLESCENCE MANAGEMENT

Process for obsolescence management

14:15 **BREAK**

14:30 **Chapter 9: Performance evaluation**

Definition Performance Indicators

Speech about Guideline 1: 2020 KPIs

Balanced Indicators

Exercise 9: workshop - Balance of PIs (15')

How to define the right PIs?

SMART PIs – Criteria

Principles of PI measurement

Overview: mandatory and optional PIs with associated processes

Annex C Performance indicators,

PI profiles

16:00 **5' BREAK**

Quality Deficiency Cost – QDC

QDC representation

QDC analysis

Exercise 10: QDC case study! (45' + 15')

around 18:00 **wrap-up and finish of day 3**

Individual preparation for exam

Day 5

08:00 recap of yesterday and outlook for today

Chapter 9: Performance evaluation (cont')

Customer satisfaction (9.1.2)

Customer focus (chapter 5.1.2)

Handling of customer complaints

Customer satisfaction analysis in a project

Analysis and evaluation of Information and Data (9.1.3)

Internal audit (9.2)

Process for internal audits

Knowledge and skills of internal auditors

Evaluation scheme for internal auditor's performance

Chapter 10: Improvement

Nonconformity and corrective action (10.2)

Process for managing nonconformities and corrective actions

Effectiveness of corrective action

09:30 **BREAK**

09:45 **Auditor behavior**

The Audit Zoo

Communication skills

Fundamental communication rules

The Sender – Receiver Model

The four sides of communication by Friedemann Schulz von Thun

Active listening

Approaches to speaking

Questioning techniques

Phases of an audit

Good auditing behavior

Bad auditing behavior

my 10 golden rules

Bonus: 13 behavioral rules for auditees

10:45 **BREAK**

11:00 *questions and answers and seminar wrap up*

12:00 **LUNCH**

13:00 **written examination** (1:15')

14:15 **BREAK**

15:00 Seminar closure

Exam evaluation

Our Services

IRIS Learning (IRIS Academy)

IRIS Coaching & mentoring

IRIS Improvement Projects

Expectations met?

Course evaluation

Handout of Certificates

Course evaluation

Error analysis ISO 22163 (findings, reasons, suggestions to correct errors)

Conclusions

latest 16:00 **Farewell**