

Quality assurance

DATASHEET ISO 19443

The quality management system
for the nuclear supply chain

ENERGY EVOLVED



Your Risk Management
Advantage



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INTRODUCTION



ISO 19443 specifies quality management system requirements for organisations supplying products and services that are Important To Nuclear Safety (ITNS).

This standard is based on the widely recognised ISO 9001 but includes additional requirements tailored to meet the stringent safety and regulatory demands of the nuclear industry.

The standard provides a framework for managing and improving the quality and safety of products and services, helping organisations mitigate risks, enhance performance and achieve compliance with national and international nuclear regulations. It applies to a wide range of organisations involved in the nuclear supply chain, including manufacturers, contractors, service providers and suppliers of nuclear-specific components.



WHY CHOOSE ISO 19443

Enhanced safety ensures suppliers adhere to stringent safety protocols to protect against nuclear risks.



ISO 19443 helps organisations comply with national and international nuclear regulations.



ISO 19443 facilitates the evaluation and selection of suppliers based on their ability to meet nuclear safety standards.



The framework provides consistent quality assurance in the supply chain.



Identify and mitigate risks specific to the nuclear supply chain.



KEY COMPONENTS OF ISO 19443



Quality management principles

Quality management principles are essential for ensuring that an organisation consistently meets customer requirements and improves its performance over time. Here are the principles that are integral to the ISO 19443 standard:	Customer focus Understanding and meeting customer requirements is fundamental. This principle emphasises the importance of ensuring that nuclear safety and quality needs are consistently met. 	Leadership Leadership involvement at all levels establishes unity and creates conditions in which people are engaged in achieving the organisation’s quality objectives 	Engagement Competent, empowered and engaged people at all levels are essential to enhance the organisation’s capability to create and deliver value. 
Process approach Consistent and predictable results are achieved more effectively and efficiently when activities are understood and managed as interrelated processes. 	Continuous improvement Successful organisations focus on continual improvement. This principle is crucial in the context of nuclear safety to adapt to new regulations and technologies. 	Data-led decision-making Decisions based on the analysis and evaluation of data and information are more likely to produce desired results. 	Relationship management For sustained success, organisations manage their relationships with interested parties, such as suppliers, to optimise their performance and ensure nuclear safety. 

KEY COMPONENTS OF ISO 19443



Specific requirements for nuclear safety

Risk management

- **Risk identification:** identifying risks related to nuclear safety at all stages of the supply chain.
- **Risk assessment:** evaluating the significance of identified risks and their potential impact on nuclear safety.
- **Risk mitigation:** implementing measures to reduce or eliminate risks to an acceptable level.

Competence and awareness

- **Training:** providing training programs to ensure that all employees are competent in their roles, especially concerning nuclear safety.
- **Awareness:** ensuring that all personnel are aware of the importance of their activities and how they contribute to nuclear safety.

Documented information

- **Documentation control:** establishing procedures for creating, updating and controlling documentation to ensure accuracy and consistency.
- **Record keeping:** maintaining detailed records of all quality management activities to provide evidence of compliance and facilitate traceability.

Product realisation

- **Planning:** developing plans for product realisation that address nuclear safety requirements.
- **Process control:** implementing controls to ensure that products and services meet specified requirements.
- **Verification and validation:** conducting verification and validation activities to confirm that products and services meet nuclear safety standards.

Control of externally provided processes

- **Supplier evaluation:** evaluating and selecting suppliers based on their ability to meet ISO 19443 requirements.
- **Supplier monitoring:** continuously monitoring supplier performance to ensure ongoing compliance with nuclear safety standards.
- **Supplier development:** working with suppliers to enhance their capabilities and ensuring they can consistently meet nuclear safety requirements.

THE CERTIFICATION PROCESS



Preparation



Gap Analysis

Conduct an analysis to identify gaps between current practices and ISO 19443 requirements.



Implementation planning

Develop a detailed plan to address identified gaps, including timelines, responsibilities and resources.



Training

Provide training to employees on ISO 19443 requirements and nuclear safety principles.

Implementation



Process establishment

Establish and document quality management processes and procedures.



Risk management

Implement risk management strategies tailored to nuclear safety.



Documentation

Ensure all processes are documented and records are maintained for traceability.

Audit and certification



Internal audits

Conduct regular internal audits to assess compliance with ISO 19443 requirements.



External audits

LRQA nuclear experts will perform an independent audit.



Certification

Achieve ISO 19443 certification upon successful completion of an external audit.



WHY CHOOSE LRQA?

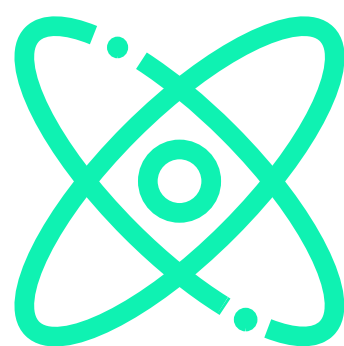


At LRQA, we enable businesses to build, maintain and decommission nuclear facilities, ensuring their critical assets are safe and operating efficiently. Our comprehensive nuclear services span the entire supply chain, ensuring that safety, efficiency and regulatory compliance are maintained at every stage. LRQA has a track record of supporting over 600 clean energy projects, including nuclear power, in over 25 countries and providing clients with expert assurance at every stage of their facilities’ lifecycles – from design to decommissioning.



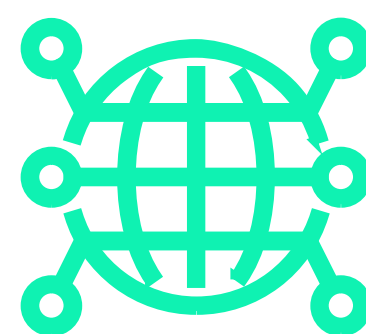
Connected risk management

From asset integrity to Scope 3 emissions, we help you manage climate risks as part of one connected picture. Our portfolio brings together expertise in renewable energy, supply chains and sustainability strategy so you can stay ahead of policy shifts, accelerate net-zero delivery and unlock long-term project value.



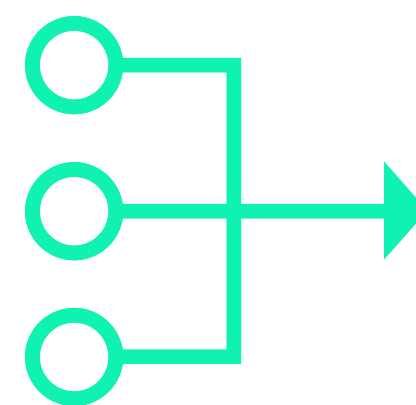
Track record in Civil Nuclear

With over 70 years of experience, we’ve established an extensive track record in low carbon power – supporting some of the world’s leading energy producers, manufacturers and operators throughout their transition to cleaner forms of energy including hydrogen, nuclear, wind and solar.



Proven global expertise

Our services are underpinned by a global network of specialists, from sustainability and carbon experts to auditors and technical advisors. With experience across thousands of major energy and climate programmes, our global team helps you shape strategies that are realistic, robust and ready to deliver - grounded in sector knowledge and assurance insight.



Outcomes aligned from day one

We align with you on the outcomes that matter most – from reporting accuracy to long-term climate goals. Through clear timelines, shared expectations and proactive account management, we help turn ambition into measurable impact.

ABOUT LRQA

LRQA is a leading global risk management partner.

Through our connected risk management solutions, we help you navigate an evolving global landscape to keep you one step ahead.

From certification and cybersecurity, to safety, sustainability and supply chain resilience, we work with you to identify risks across your business. We then create smart, scalable solutions, tailored to help you prepare, prevent and protect against risk.

Through relentless client focus, backed by decades of sector-specific expertise, data-driven insight and on-the-ground specialists across assurance, certification, inspection, advisory and training, we support over 61,000 organisations in more than 150 countries.

LRQA – Your risk management advantage.

GET IN TOUCH

Visit **LRQA.com** for more information or email **enquiries@lrqa.com**



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