ISO 99001

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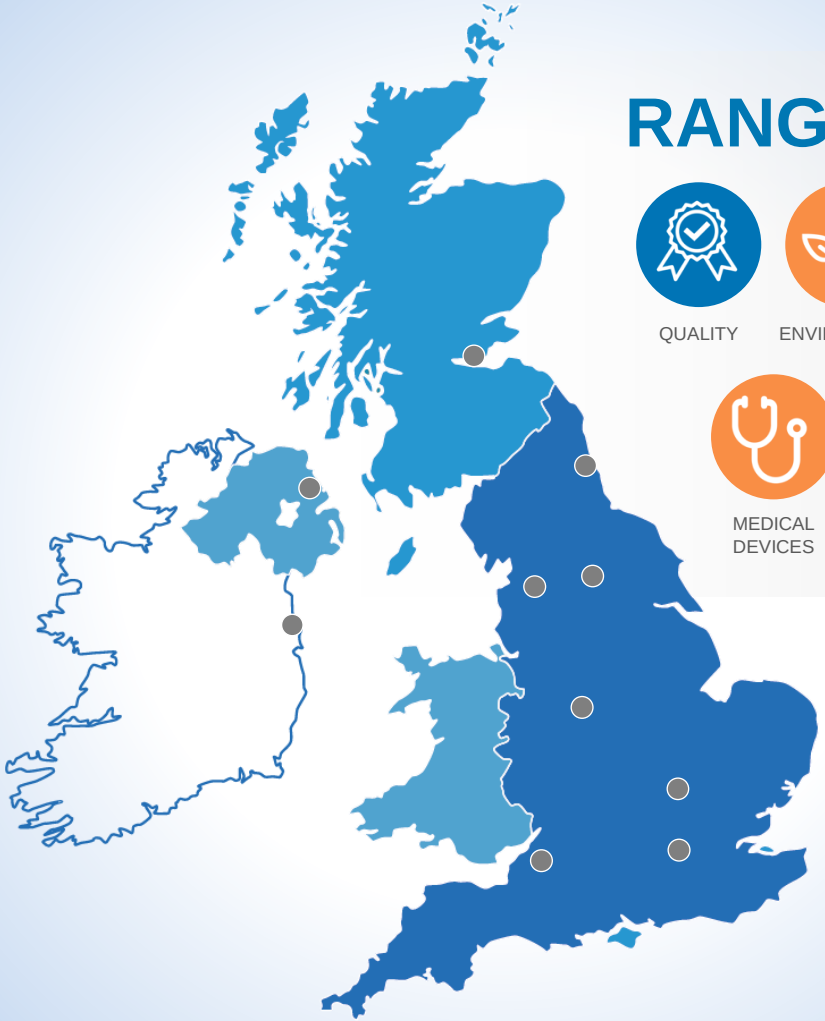

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YOUR PRESENTER

KEY INFO

- 45 minute webinar
- Questions in the chat box
- Q&A at the end
- Recording of webinar circulated shortly

Martin Graham

ISO 9001, ISO 14001, ISO 45001, ISO 50001, SSIP

NQA Principal Assessor for Quality

Martin is an experienced lead auditor, with 20 years' exposure to the certification industry covering sectors including retail, manufacturing and assembly, construction, engineering, testing, mechanical & electrical installations, transport logistics, communication, education and training providers. Having knowledge of managing each step of the certification process, he is well positioned to understand clients' needs and support them through the certification process.

WHAT WILL BE DISCUSSED?

- What is 99001
- Why another standard?
- Overview of the standard requirements
- Potential benefits
- Next steps
- Q&A

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INTRODUCTION

99001

The new British Standard focusing on the application of the international quality management standard BS EN ISO 9001:2015 in the built environment has been published.

The generic nature of ISO 9001 has led to significant differences in interpretation of its requirements, at times rendering it a mere formality, a piece of paper hanging on a wall in the head office, having little effect on the way that projects work in the real world.

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WHY THE NEED FOR A NEW STANDARD?

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WHY?

ISO 9001 is long standing and well established, but when it comes to specifics for the built environment it can be considered as falling short of what is needed.

One of ISO 9001's biggest strengths and or weaknesses is it's 'generic' nature. The ability to apply it to any sector or industry is well known and understood. However, it's applicability and relevance to the built environment has been considered by some as falling short.

Some of the concern arises from the fact that ISO 9001 can be considered as being set up for 'organisational' quality systems whereas the built environment is generally more project-based.

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WHY?

It can be considered that projects require quality assurance at each stage, from initial conception through to demolition or decommissioning and ISO 9001 does not fully offer that.

In addition, by being a generic standard there is a risk that ISO 9001 does not get into the nitty gritty of how and where a built environment project needs to be managed.

The result of all this thinking is ‘BS 99001:2022 Quality management systems - specification for the application of BS EN ISO 9001:2015 in the built environment sector’. This is a new standard that provides additional sector specific management system requirements and is to be used alongside ISO 9001 as a supplementary set of requirements.

WHY?

BS 99001 has been written by and for the sector. In the past there have been attempts to develop and implement various schemes, BS 99001 seeks to consolidate industry experience and expectations.

BS 99001 has been written to consider the whole built environment sector, from architects and designers through to construction organisations and all associated contractors. It can also cover structural engineers, professional trades, suppliers and surveyors. It also factors in decommissioning and prefabricators.

The overall intention of the standard is that it will aim to provide a tool by which sector wide engagement and support for improvements across the suitability, safety and durability of built environment assets may be achieved.

WHY?

Whilst the fundamental principles of ISO 9001 have of course not changed, many principles and requirements have been introduced by 99001 to ensure that the necessary steps are made in the construction environment to deliver the best possible project quality.

BS 99001 has been developed in a post-Grenfell world. As such, processes to meet applicable Building Safety Legislation have been incorporated into BS 99001. The understanding is that Government and the owners of high-risk buildings may make BS99001 a pre-requisite requirement.

WHY?

BS 99001 is designed for all sizes and ranges of projects. The standard intends to drive the process and not necessarily the administrative overheads. In addition, BS 99001 does not necessarily need to be applied organisation wide. A larger organisation could certify their project management department to BS 99001 but not necessarily the operational level or organisation as a whole.

Overall, BS 99001 is aimed at clarifying and enhancing what may be considered the generic requirements of ISO 9001. The standard will direct an organisation to apply 9001 in a way that is more relevant to the project-based approach of the built environment sector.

WHY?

It should be remembered that BS 99001 is aimed at all and any organisations operating in the built environment sector in the UK. It is not aimed exclusively at the quality manager; it is intended to apply at all levels and stages.

Organisations acting as clients, contractors and designers may find the standard particularly useful, as it will help them set out their governance mechanisms for projects in a way that will affect all interested parties involved in design and construction to collaborate efficiently, effectively and will put quality, safety and sustainability of their built assets as a priority.

BS 99001 asks organisations to consider social, economic and sustainability factors within their context, including progress towards net zero emissions.

WHY?

BS 99001 will also provide a practical framework for those involved in the project supply chain by giving detail and information on the expectations associated with material, services and components.

ISO 9001 is rightly recognised as a benchmark standard, the additional requirements of BS 99001will help to provide decision makers involved in any part of the built environment project process to focus on providing a quality product and service, with the ultimate goal being to raise the level of quality-of-service delivery and safety whilst avoiding risks and fulfilling compliance obligations.

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OVERVIEW

OVERVIEW

- **Context and Interested Parties**
- …related to the context of projects…including commitments to social, economic and environmental sustainability, including progress towards net zero emissions
- Parties such as members of the public, project funder and investors, owners/operators of the asset, project teams under the client control, the media, insurance organisations
- Ensure consideration takes into account sustainability and social value impacts
- Shall be maintained as documented information

OVERVIEW

- **Scope**
- …Shall also meet the requirements provided in this British Standard, if applicable within the determined scope of the QMS
- **Management system and processes**
- …no additional requirements but note:
- *The quality of information is key to quality management systems for the built environment sector as it is characterised by long activity life cycles, organisation and system complexity and reliance in data. If data is not at the required quality, it leads to compromised decisions and undermines quality management systems*

OVERVIEW

- **Leadership**
- …including quality management in top management responsibilities
- …taking accountability for the management and delivery of quality on projects
- …ensuring quality management is promoted as integral at all levels and communicated to the supply chain
- …ensure people in quality management roles are competent and supported to perform their roles impartiality and independently

OVERVIEW

- **Customer focus**
- Shall demonstrate leadership and commitment by ensuring that
- …product and service conformity is measured
- …quality is prioritised when considering on time and on budget delivery
- …action is taken if planned results are not, or will not be, achieved through the project Lifecyle, by the organisation and its supply chain

OVERVIEW

- **Policy**
- No additional requirements, but –
- …the organisation shall communicate the quality policy to all relevant interested parties in project supply chains, to ensure alignment at all levels of projects the organisation is involved in or plans to be involved in

OVERVIEW

- **Roles, responsibilities and authorities**
- …top management shall ensure that a competent person is appointed as the management system representative with oversight of quality for projects
- …the management representative shall have responsibility and authority for the oversight of the requirements given in 5.2.1 and 5.2.2. (establishing and communicating the quality policy) on a project basis
- …the representative shall be supported to ensure that quality management of data is sufficient
- …top management shall clearly define governance and support arrangements

OVERVIEW

- **Roles, responsibilities and authorities**
- …top management shall ensure roles, responsibilities and authorities that are relevant to the project are identified and defined in accordance with the nature and complexity of the project
- …top management shall ensure the management representative has organisational freedom and unrestricted access to the project leadership to resolve project quality issues
- …shall ensure the management representative with oversight of quality has authority to pause operations in order for quality issues to be addressed

OVERVIEW

- **Planning**
- …risks and opportunities related to projects, the process of construction and subsequent use of the asset, the organisation as a whole, society the economy and the environment
- Shall maintain documented information on the potential impact on the organisation of project related risks and the processes and actions needed to address risks and opportunities
- Shall ensure plans are reviewed and updated as necessary

OVERVIEW

- **Planning**
- …shall establish objectives for each project to reflect contractual and other requirements including social, economic, and environmental commitments
- …objectives shall take into account scope, time, cost and project Lifecyle and where appropriate involve relevant interested parties

OVERVIEW

- **Changes**
- …shall assess the need for changes to the QMS related to projects
- …shall establish and implement processes to ensure changes do not conflict with the QMS
- …shall ensure changes are agreed by and communicated to all relevant interested parties
- …assess the impact of the change on risk, opportunities and associated actions

OVERVIEW

- **People**
- …shall ensure that people are competent to perform particular roles and responsibilities formally assigned to them (including project or contract specific roles and responsibilities)
- **Infrastructure**
- …shall determine, provide and maintain the physical and digital on and off site infrastructure to achieve project objectives (including sustainability)
- **Environment for operation of processes**
- …shall take action to support and promote ethical behaviour and social responsibility at all levels within the organisation and supply chain (e.g. modern slavery, anti bribery etc.)

OVERVIEW

- **Monitoring and measuring resources**

- …shall establish a process to ensure that people responsible for the conformity of products and service…

- Are competent
- Demonstrate the required behaviours
- Are available as planned
- Have the necessary capacity
- Have the necessary authority
- Are impartial and free from conflicts of interest

OVERVIEW

- **Measurement traceability**
- …shall ensure that equipment is calibrated and aligned
- Shall maintain documented information on equipment type, unique identification, location, calibration method, frequency and acceptance criteria
- Process for recall of equipment requiring calibration / verification
- Consequent remeasurement and or rework

OVERVIEW

- **Knowledge**
- …shall capture, analyse and learn from project knowledge
- …lessons learned shall be shared throughout the organisation and relevant interested parties
- …Information related to lessons learned shall be uniquely identifiable and dated
- …shall establish process to ensure it can access knowledge from professional bodies and other trusted sources

OVERVIEW

- **Competence**
- Shall ensure that people working on behalf of the organisation…
- …Are given appropriate authority to approve all aspects of operation as relevant to their role and are competent to do so
- …The organisation shall ensure external providers provide competent people to work on projects under it control
- …In determining competency requirements, shall consider relevant interested parties
- …Shall maintain documented information, including how the competence requirement(s) have been determined

OVERVIEW

- **Awareness**
- …contribution to product / service conformity
- …contribution to product safety
- …contribution to social economic and environmental commitments
- …the importance of ethical behaviour

OVERVIEW

- **Communication**
- Establish process to enable effective communication to all project functions
- Ensure effective and accessible induction of people
- Share knowledge
- Communicate changes

OVERVIEW

- **Documented information**
- Process to ensure it is aware of current statutory and regulatory requirements relating to documented information
- Creating and updating documented information shall be documented
- Suitable medium
- Suitable approval methods
- Changes communicated and all relevant parties using current documented information
- State reasons for retention duration and disposition

OVERVIEW

- **Operational planning & control**

- …shall determine sequence of activities and how these interact to assure and maintain the integrity of products, services and assets, considering risks and opportunities

The organization shall take into account:

a) potential impacts on the physical, economic and social environment, taking into account sustainability commitments;

b) practical aspects of manufacturing, assembly and commissioning of assets;

c) applicable certifications and accreditations of products, services and assets;

d) complexity of design;

e) ease of inspection, service and maintenance;

f) physical access throughout the project life cycle;

g) physical access in relation to the final product/asset;

h) reliability and availability;

i) suitability of components and materials used in the product;

j) suitability of the product in the finished asset;

k) development, selection and use of software, including embedded software;

l) potential obsolescence and when this is likely to occur, taking into account the life cycle of the final asset;

OVERVIEW

- **Operational planning & control**
- …shall determine sequence of activities and how these interact to assure and maintain the integrity of products, services and assets, considering risks and opportunities

m) aspects relating to handover, decommissioning, deconstruction or disassembly of the asset; and

n) aspects relating to reusing, recycling or appropriate disposal of components.

The organization shall implement and maintain a process(es) to ensure documented information related to the life cycle of products, services and assets can be kept up to date by relevant interested parties (see 8.6 for further requirements relating to handover of the asset).

OVERVIEW

- **Requirement for products and services**

- …shall maintain process for effective communication

- ...shall consider factors such as –

- Political, economic, environmental, social, technological
- Capability and capacity
- Applicable requirements for fire and structural safety
- Digital capability
- Supply chain capacity and capability
- Design requirements
- Innovation
- Infosec
- Feedback

OVERVIEW

- **Review of requirements**

- …shall consider

- Customer requirements
- Contractual requirements
- Project life cycle stages
- Lifecyle of the asset
- Buildability
- Intended use and limitations
- Planned or foreseeable changes to statutory / regulatory requirements
- Implication of changes to requirement from those previous expressed

- Shall maintain documented information as evidence of communication to resolve differing requirements and decisions reached

OVERVIEW

- **Changes to requirements**
- …defined change management process
- …change traceability and authorisation
- …change competence
- …changes to risks / opportunities

- Shall maintain documented information of changes and agreement of same

OVERVIEW

- **Design and development**
- Shall include processes at organisation and project level, taking into account specific requirement for each project
- Lifecycle considerations
- Compatibility
- Consequence of obsolescence
- Product safety
- …As examples

OVERVIEW

- **Externally provided processes, products and services**
- …shall ensure appropriate criteria for identification, approval and reapproval
- …shall verify requirements have been met
- Process for -
- Responsibility and authority for approval
- Maintaining relevant documented information
- Evaluating client preferred providers
- Review of performance
- Approval changes
- Actions if requirements are not met

OVERVIEW

- **Externally provided processes, products and services**

Shall require and validate that external providers apply appropriate controls to external providers in their own supply chains and verify that requirement are met throughout the supply chain

Maintain documented information of these required and information related to approval criteria available to relevant interested parties

Define responsibilities within the supply chain

Ensure appropriate controls are defined for each stage of the project lifecycle

Retain documented information to allow recall, replacement or rework as appropriate

Delegated verification activities – scope and required shall be defined and documented

OVERVIEW

- **Information for external providers**

- Relevant technical data
- D&D control
- Special requirements, critical process, key characteristics
- Test, inspection, verification
- Ethical behaviour and sustainability commitments
- Health, safety and wellbeing of workers
- Safety

OVERVIEW

- **Control of production and service provision**

- …shall establish criteria for inspection and testing

- Workmanship
- Changes
- Accountabilities
- Control of critical processes / characteristics
- Security (people, equipment, assets, information)

ID & traceability

Determine and address the risks arising when traceability is lost or obscured

OVERVIEW

- **Property belonging to customers or external providers**
- …methods used to preserve products and constituent parts
- …storage areas
- …access routes
- …type and frequency of assessment
- …identification and traceability marks

OVERVIEW

- **Post delivery activities**
- …shall consider collection and analysis of operational data that meets pre-determined information requirements (e.g. asset performance, reliability, lessons learned)
- …shall take appropriate action when issues are detected post delivery
- …documented information to ensure customer has up to date and accurate information on handover
- …shall ensure continuing access to relevant information post delivery (to include what has been supplied and safe maintenance & operation of that which has been supplied

OVERVIEW

- **Post delivery activities / handover**
- …shall maintain relevant documented information related to the changes made through the life cycle of the project
- E.g. agreed requirements, design, material specifications, handover to asset/facilities managers etc.
- …shall define the criteria for handover (including phased handover)
- E.g. bringing assets into use, maintenance, insurance, post delivery, commissioning operations use instructions

OVERVIEW

- **Control of non-conforming outputs**

- The process shall include

- …defining roles & responsibilities
- …controlling the effect on other processes/products/services

- Where the root cause is identified as design, the issue shall be reported to the relevant design team

- Nonconformities requiring a concession or design change shall be notified to the relevant design authority

OVERVIEW

- **Performance evaluation**

- …shall ensure that all aspects of the organisation, including projects, are taken into account.

- ..shall consider (as appropriate)
- Plans for T&I
- Competence
- Schedules
- Budgets
- Project performance
- (as examples)

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OVERVIEW

- **Analysis and evaluation**
- …shall develop and implement plans for improvement, including satisfaction
- …shall ensure that the project lifecycle is taken into account

OVERVIEW

- **Internal audit**
- …shall ensure that ongoing projects are included in the programme
- …a risk based audit programme for projects to be developed
- …and retained as documented information
- …shall ensure that auditors are competent

OVERVIEW

- **Management review**
- Shall ensure that reviews are
- …incorporated into reporting and evaluation requirements
- …incorporate review of key interfaces with IP
- …are consistent with social, economic and environmental commitments

OVERVIEW

- **Management review**

- Inputs to consider trends in -

- Time, cost, quality
- Capacity, capability
- Ongoing assessment of risks and opportunities
- Social, economic and environmental impacts

- Outputs to be communicated to relevant IP taking into account contractual and other requirements

OVERVIEW

- **Improvement**
- …shall determine and select OFI during the lifecycle of projects
- …OFI at project level shall be consistent throughout the organisation
- …shall consider sustainability commitment when determining OFI
- …shall identify OFI through engaging with IP

OVERVIEW

- **NC/CA**
- Determine the difference between QMS and product / service NCs
- Guidance to people under the QMS on the difference
- Work with appropriate IP on the actions
- Shall communicate with relevant IP on the output and actions taken on project NCs
- Documented information shall include the effectiveness of corrective actions

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OVERVIEW

- **Improvement**
- …improvement shall be implemented during the Lifecyle of projects
- …communicate to relevant IP

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POTENTIAL BENEFITS

POTENTIAL BENEFITS

- 9001 can be considered ‘generic’
- 99001 clarifies and specifies some of the key requirements of ISO 9001 for parties involved in the built environment sector, spanning the whole life cycle of a built asset
- Further supports the commitment to a superior level of service
- The additional requirements provided by BS 99001 will assist key personnel to focus on delivering quality service and product that will align with expectations and empower key roles within projects to make critical decisions that will prevent harm, prevent losses and protect long-term interests and reputations
- The ultimate goal is to raise the level of quality in the sector
- ‘Quality’ in this context taken to mean more than ever before, covering compliance, risks, protecting business and lives

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NEXT STEPS…

NEXT STEPS…

- Review current system and arrangements
- Go beyond ‘quality’ and factor in sustainability, H&S, information management and design processes
- Can be considered as part of the management review / opportunities for improvement process
- Focus on leadership roles, project governance, disciplined and project interface arrangements
- A review of performance related activities and mechanisms to consider 99001
- Common terms of reference for risk management, functions and disciplines
- A move from trying to determine which processes are the most important to assessing where risks and opportunities lie
- Multi-disciplinary review of the requirements against exiting arrangements
- Approach 99001 as not ‘more paperwork’ but increasing efficiency

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Q&A

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TAKE THE NEXT STEP

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THANK YOU

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