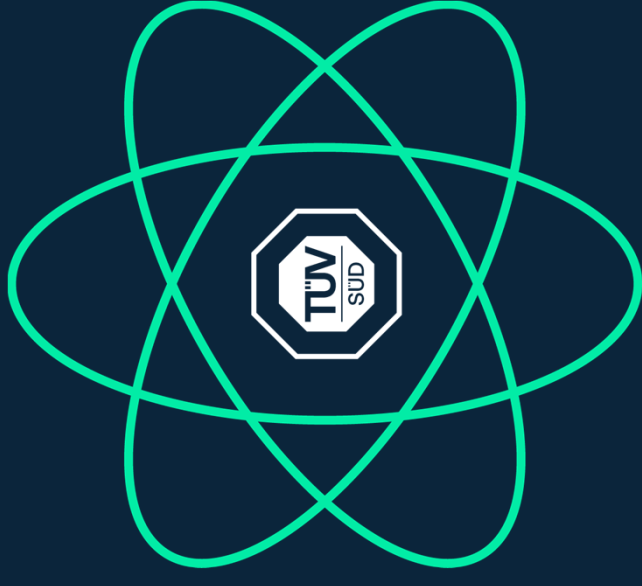


ISO 19443 Standard

TÜV SÜD





Agenda



01 ISO 19443 Standard & Benefits to Suppliers

02 Crucial Requirements from ISO 19443

03 Implementation of ISO 19443 & TÜV SÜD Services

04 Overview of Audits and Certification Process



Agenda



01 ISO 19443 Standard & Benefits to Suppliers

02 Crucial Requirements from ISO 19443

03 Implementation of ISO 19443 & TÜV SÜD Services

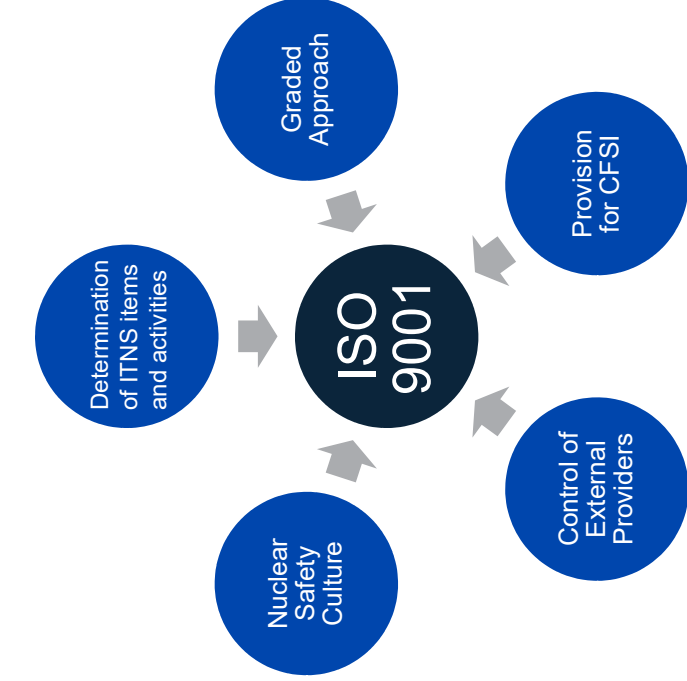
04 Overview of Audits and Certification Process

ISO 19443

Quality Management Standard for the Nuclear Supply Chain



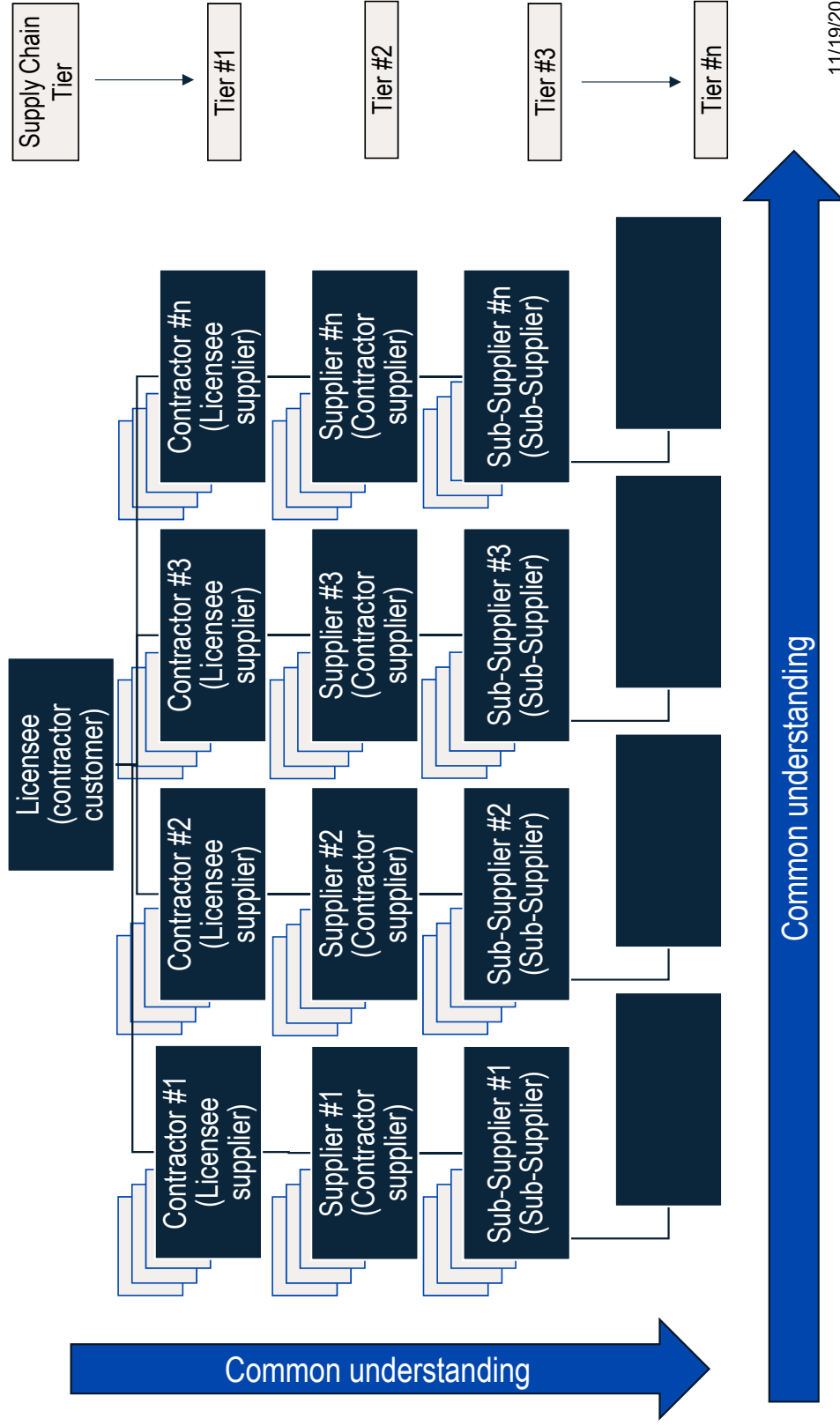
ISO 19443 “Quality management systems - Specific requirements for the application of ISO 9001:2015 by organizations in the supply chain of the nuclear energy sector supplying products and services important to nuclear safety (ITNS)” - May 2018



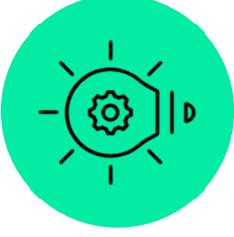
ISO 19443

- ☉ Improve understanding of quality requirements for nuclear needs throughout the supply chain.
- ☉ Standardize the requirements, harmonize the quality and safety culture internationally.
- ☉ Facilitate acceptance by regulatory bodies.
- ☉ Long term sustainable relationship between licensee and supplier.

Benefits to Suppliers



Benefits to Suppliers



- Common understanding and acceptance between customer (licensee/operator) and supply chain to improve the effectiveness of supply chain.
- Fulfilling tender requirements for new build projects, increasing acceptance for tenders.
- Access to international markets, internal recognition.
- Time efficient, more effective customer audits.
- Acceptance by safety authorities.
- Acceptance by regulatory bodies.
- Improved safety culture, consistent quality and customer satisfaction.





Agenda



01 ISO 19443 Standard & Benefits to Suppliers

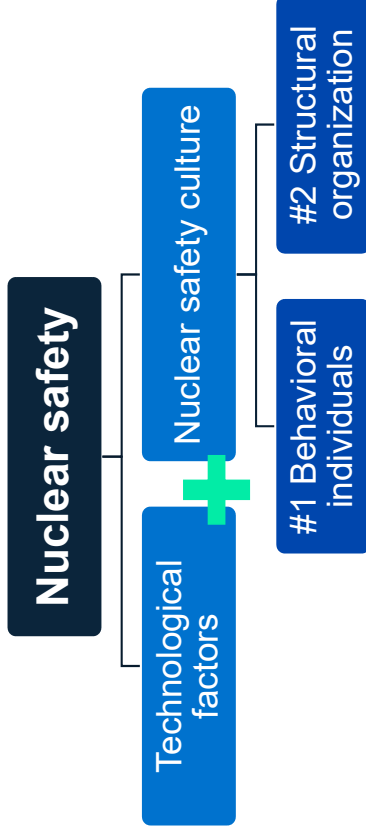
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03 Implementation of ISO 19443 & TÜV SÜD Services

04 Overview of Audits and Certification Process

Nuclear Safety Culture

- **Nuclear safety:** Achievement of proper operating conditions, prevention of accidents and mitigation of accident consequences, resulting in protection of workers, the public and the environment from undue radiation risks.



Nuclear safety culture contributes to nuclear safety.

Safety culture is characterized by two components and an optimal interaction between individuals and organisation to ensure nuclear safety.

Sources: IAEA safety series No. 57-INSAG-4, 1991 „Safety Culture-A report by the international nuclear safety advisory group“
INPO „Principles for a Strong Nuclear Safety Culture“





Nuclear Safety Culture Impact for Suppliers



All activities involved in the supply of **ITNS products or services** can and do influence nuclear safety

- Management: **leadership, decision-making** and creating a respectful work environment
- Expected behavior: **questioning attitude**, adherence to procedures, transparency in reporting issues and events

Any supplier involved in the supply of ITNS products or services is a key partner in ensuring that appropriate level of nuclear safety is achieved.

Determination of ITNS items and activities

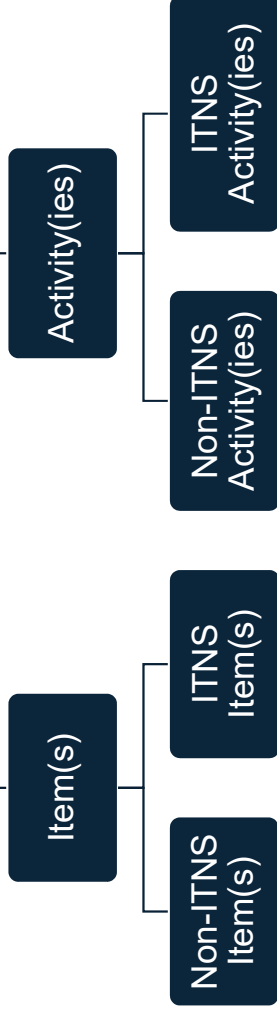


Products or services, whose failure could result in undue radiation exposure of people or the environment are **important to nuclear safety (ITNS)**

Licensee / Tier 1
Contractor



ITNS product/service
as specified by the
customer



Impact on
the three
safety
functions

- Control of reactivity
- Cooling of the fuel
- Confinement of radioactive material

GRADED APPROACH



Agenda



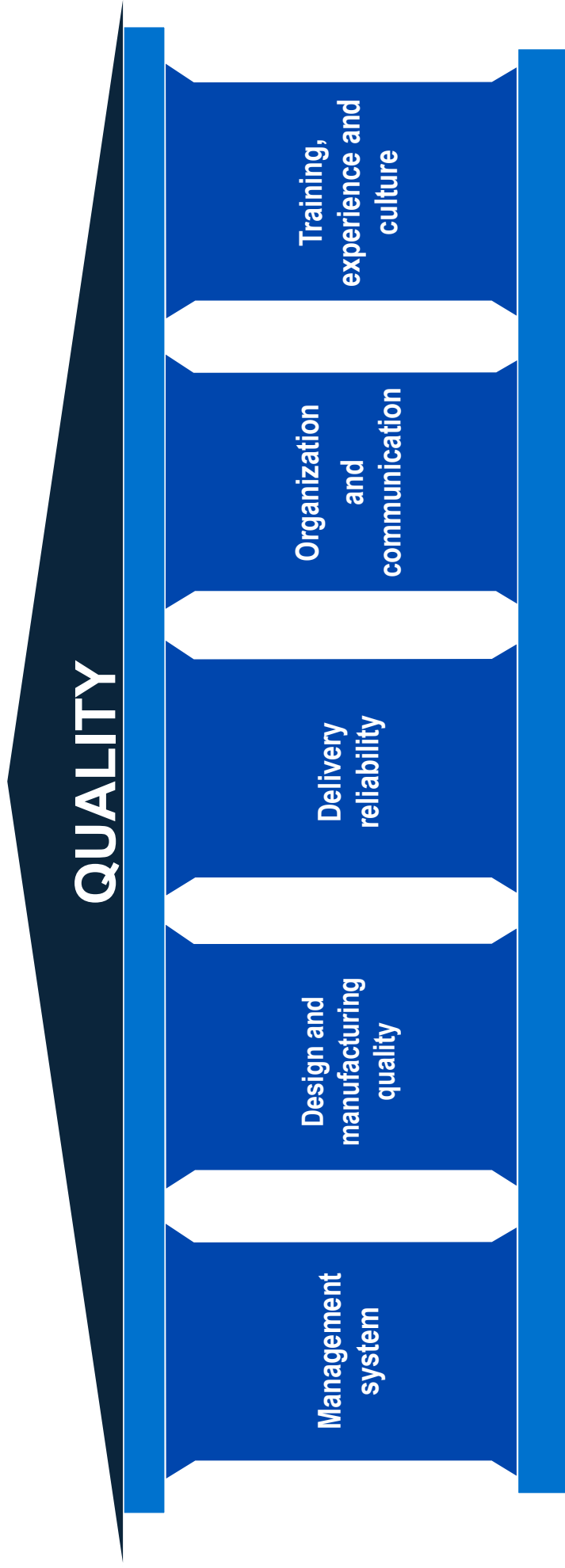
01 ISO 19443 Standard & Benefits to Suppliers

02 Crucial Requirements from ISO 19443

03 Implementation of ISO 19443 & TÜV SÜD Services

04 Overview of Audits and Certification Process

Integrating the requirements ISO 19443 into the existing management system





Agenda



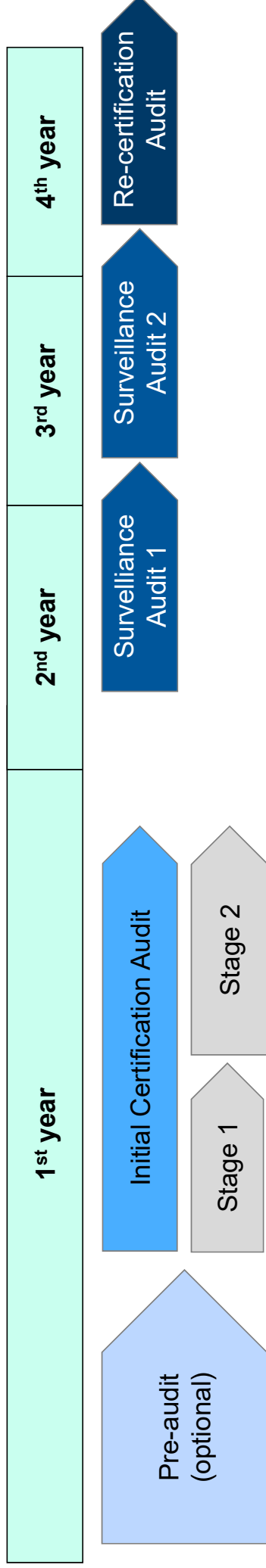
01 ISO 19443 Standard & Benefits to Suppliers

02 Crucial Requirements from ISO 19443

03 Implementation of ISO 19443 & TÜV SÜD Services

04 Overview of Audits and Certification Process

Steps of the Certification Process



Initial Certification Audit

- Preparation
- Stage 1 & 2 audits
- Report
- Follow-up
- Certificate preparation

Surveillance Audits

- Preparation
- Audit
- Report
- Follow-up

Re-certification Audit

- Preparation
- Audit
- Report
- Follow-up
- Renewal of certification

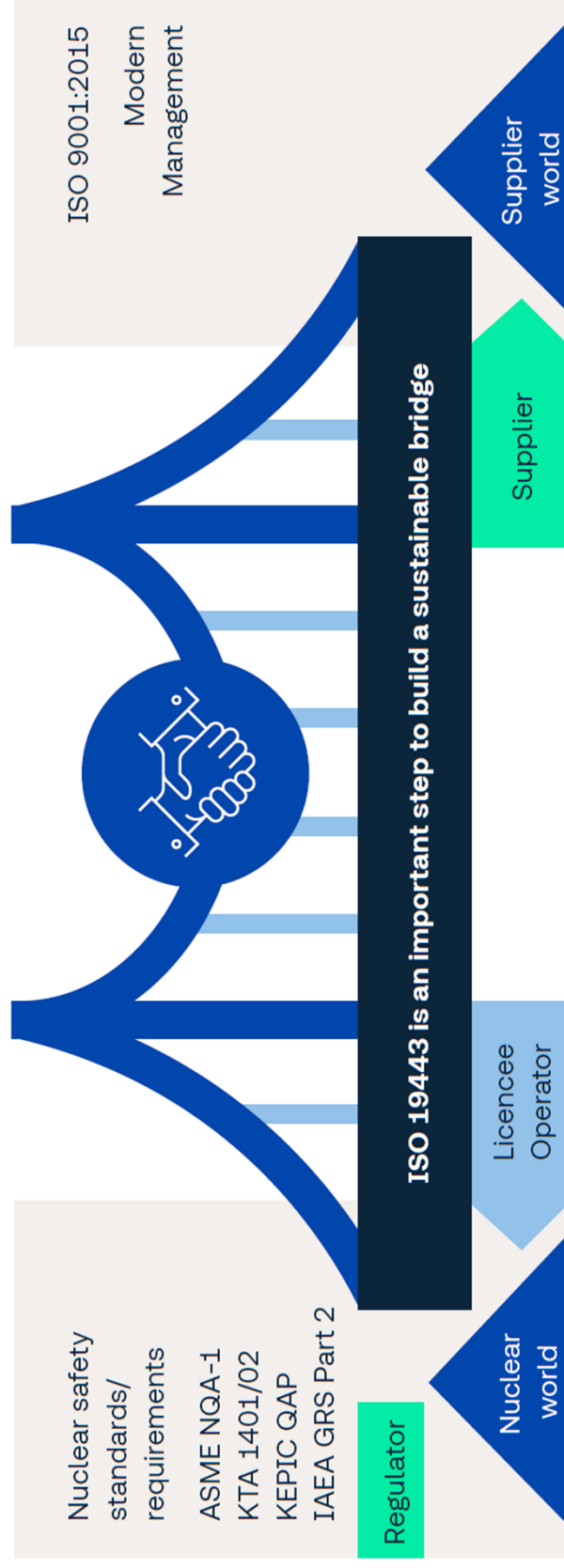
ISO 19443 Audit Duration



- If the entire organization is involved in nuclear specific activities, the entire organization will be certified according to ISO 19443.
- If the nuclear specific activities are only the part of a broader organization, only this part can go under ISO 19443 certification (clear separation is necessary).
- For organizations with multiple sites a Multi-Site sampling is possible for Annual Surveillance Audits under certain conditions.

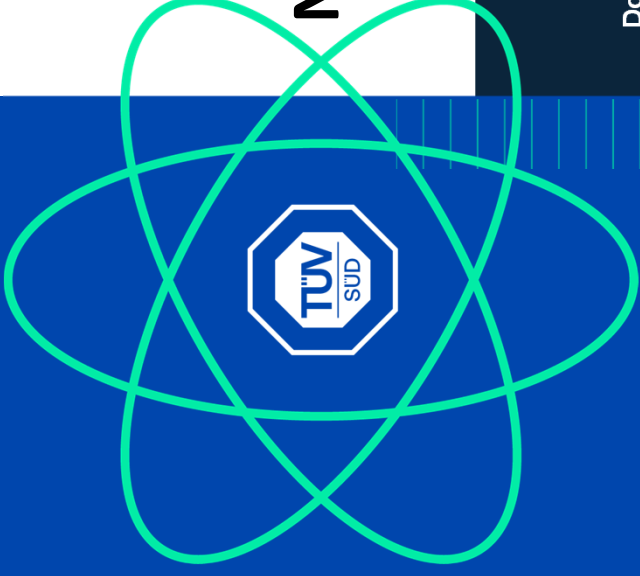
Number of Employees	ISO 19443			ISO 19443		
	Initial	Annual Surveillance	Recertification	Initial	Annual Surveillance	Recertification
6-10	2,5	1,0	2,0	2,5	1,0	1,5
11-15	3,0	1,5	2,5	2,5	1,0	2,0
16-25	3,5	1,5	3,0	3,0	1,5	2,5
26-45	5,0	2,0	4,0	4,5	2,0	3,5
46-65	6,0	2,5	4,5	5,0	2,0	4,0
66-85	7,0	3,0	5,5	6,0	2,5	4,5
86-100	8,0	3,0	6,0	7,0	3,0	5,0
101-125	8,5	3,5	6,5	7,5	3,0	5,5
126-175	9,5	4,0	7,0	8,0	3,5	6,0
176-275	10,5	4,0	8,0	9,0	3,5	6,5
276-425	12,0	5,0	9,0	10,0	4,5	7,5
426-625	13,0	5,5	9,5	11,0	4,5	8,0
626-875	14,0	5,5	10,5	12,0	5,0	8,5
876-1 000	15,0	6,0	11,0	12,5	5,0	9,0
1 001-1 175	16,0	6,5	12,0	13,5	5,5	10,0
1 176-1 550	17,0	7,0	12,5	14,5	6,0	11,0
1 551-2 025	18,0	7,0	13,5	15,0	6,0	11,5
2 026-2 675	19,0	7,5	14,0	16,0	6,5	12,0

VISION of ISO 19443 in SUMMARY



**LONG – TERM STRONG PARTNERSHIPS WITHIN THE NUCLEAR SUPPLY CHAIN
FOR CONSISTENT HIGH QUALITY AND SAFETY**

Thank you for your attention



NuPower Days

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