

Nuclear Supply Chain Management Workshop, 5-6 November 2018, Paris, France
Session 5- November 6th, 1:00 PM

Standard Development Organization (SDO) Expert views on benefits of harmonised assessment of nuclear supply chain

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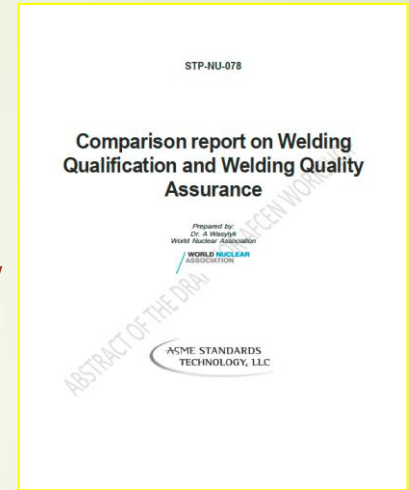
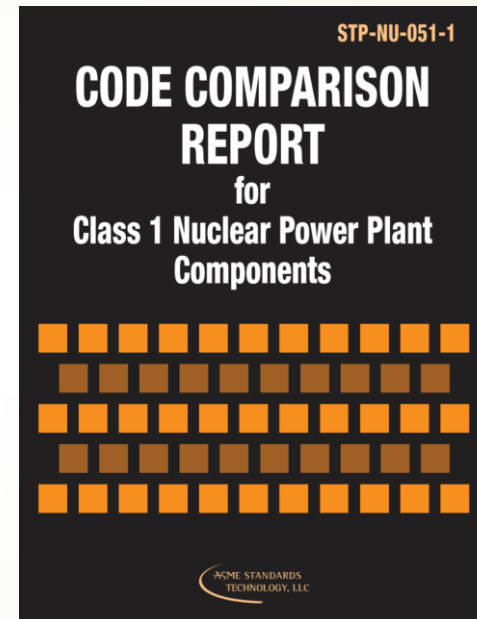
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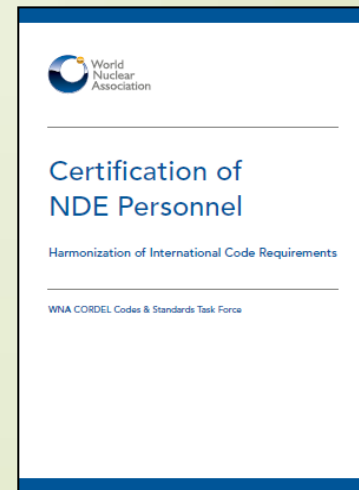
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Code Comparison Report of SDO: Overview of Quality Aspects

Background Information on ASME' code
 Background Information on AFCEN' code
 Background Information on JSME' code
 Background Information on KEA' code
 Background Information on CSA' code
 Background information on NIKIET' code



Quality management aspects?



Overview of Quality Management requirements for the supply chain in Codes (2011)

- ▶ ASME uses NQA-1; ASME requirements are compliance QA
- ▶ AFCEN/ RCC-M uses ISO-9001 and IAEA 50 C/SG, and/or GS R 3 requirements. It's a system approach
- ▶ Generally speaking, the Japanese QA requirements have their basis in ISO 9001-2000 and are performance based
- ▶ KEPIC-MNA basically includes the contents of ASME Section III NCA
- ▶ Quality Aspects CSA N285.0 cites the Section III Quality Assurance program for construction of new components
- ▶ In 2011 in Russia, 16 systems of mandatory certification have been created and are operated. These systems were organized in accordance with Russia law, "About certification of production and services." These systems of mandatory certification were developed by "Rostekhnadzor," "Rosatom," and organizations that were granted accreditation permissions. (...)

3 options

- a product approach as we have with NQA 1 of ASME
- a system approach as we have with ISO 9001+supplementary requirements coming from IAEA recommendation's (GS R 3 :2006); case of AFCEN codes
- a regulatory approach as we have in Russia, ... but also in China, India, UK, Finland, ... based on IAEA recommendation objectives adapted to local experiences, practices and licencing process of suppliers, domestic or abroad.

2018 : changes in the latest years

- Reference to ISO 17025 for accreditation of Laboratories test programs (ASME 2017, RCC M 2016)
- Development of commercial grade dedication
- Emergence of new standards:
 - Reference to ISO 3824 for quality Management of Welding (RCC M)
 - Asme Non Destructive Examination, (ANDE) certification : performance based program
 - Preparation with TK 322 of a new set of nuclear standard in Russia
- **Three majors reference document to consider:**
- a new IAEA recommendation : GS R Part II : “Leadership and management for Safety “ 2016,
- a new issue of NQA 1 standard in 2017 “Nuclear Quality Assurance: Quality Assurance Requirements for Nuclear Facility Applications””,
- a new ISO Standards 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”

Few words of conclusion

- ▶ SDO could work for harmonization of supply chain requirements, but:
 - ▶ It cannot be the imposition of only one code
 - ▶ It must make possible 2 approaches: product compliance and system based performance
 - ▶ It must be adapted to industrial practices, whatever is the local regulation
 - ▶ It must be recognised by the Safety Authorities, or avoid overlap of standards and regulatory requirements.

Thank you for your attention

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