IAEA activities in the area of supply chain

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Current Supply Chain and Procurement Trends & Challenges

- Nuclear industry falters in some traditional nuclear countries
- Globalization trend – long supply chains
- Ambitious localization wishes from newcomers
- Differing nuclear regulatory requirements & standards
- Supply of services (on-site/off-site) is also important and not free from problems
- Technical challenges – e.g. digitalization, CFSIs, ...?
- Challenges with people – nurturing nuclear quality culture

- “How to keep order books full / how to be certain to get quality products and services at reasonable price”
Why is it so difficult to achieve Quality in supply chain?

1) Inadequate understanding of the concepts of quality, quality assurance and quality product/service

2) Amount of interfaces

3) Sometimes customers and suppliers are not capable to find a win-win solution for their differing expectations

4) Humans make it or break it
Safety Standards Related to Procurement and Supply Chain

- IAEA MS standards provide requirements and guidance related to procurement.
  - GSR Part 2 Req’t 11: “Management of the supply chain”.
  - GS-G-3.1 5.50 & 51 “Purchasing”.
  - GS-G-3.5 5.33 to 5.37 “Purchasing”
Some IAEA NE Series publications

• Development & Implementation of a Process Based Management System (NG-T-1.3, 2015)
• Procurement Engineering and Supply Chain Guidelines in Support of Operation & Maintenance of Nuclear Facilities (NG-T-3.21, 2016; contains procurement guidance, including proactive actions for new NPP contracts)
• Managing Counterfeit and Fraudulent Items in the Nuclear Industry (new version 2018 or 2019)
• Industrial Involvement to Support a National Nuclear Power Programme, NG-T-3.4 (2016)
• Developing a draft IAEA Technical Document on inventory control of spare parts and obsolescence management for operating nuclear power plants
• Developing a publication on asset management
Add-on: Recent Web tools for better supply chain management

E-learning on procurement for newcomers

Nuclear Contracting Toolkit

- A web-based toolkit to assist in nuclear bidding and contracting processes;

Link here (procurement) and here (localization & industrial involvement)
Quality and Management System Aspects of Nuclear Procurement Engineering and Supply Chains, PUI Project

Peaceful Uses Initiative Extrabudgetary Support, Project Implementation Plan 2018-2019

Objective: Provide information and guidance to Member States regarding good practices for management of procurement and supply chain activities related to the construction, operation and maintenance of nuclear facilities.

Outcomes: Improved understanding in the areas of supply chain qualification and management, including oversight and assessment methods.

Planned Outputs:
1) New guidance document on supply chain qualification methods, with supporting web-based tools (the latter first with the regulations and standards landscape) including service supply;
2) New training course on supply chain oversight, including identification of technological challenges such as unidentified content and CFSIs; and
3) Member State participation at relevant Technical Meetings, workshops or conferences.
FINALLY…

• **Supply chain is part of your whole system** and thus cannot be totally left on its own
• **Informed customer(s) need to anticipate things before they happen (analyse risks)**

In an ideal world:

• **Agree on a common regulation, management system and quality requirements** for operating organizations and suppliers?
• **Have a vibrant organizational culture** oriented towards quality, sustainability and safety – it begins with individuals
• **Share supplier audit results** among operating organizations within a country, a region, or globally?
• **Share information** on lessons learned (incl. CFSIs and other discovered pathogens) within and outside of the industry?
GOOD PRACTICES

• There are different regulations and owners – this is not going to change in short term – understand and plan early on how to analyse gaps in practice (and ask those who are more experienced)

• **Customer role and oversight responsibility** (pre-qualifying, assessing, auditing, contracting, witnessing, controlling, approving, …) – no standard, IT system or third party takes that role away “Trust but verify”

• **Qualification of suppliers** (meeting face-to-face and in their premises) may always be necessary rather than just relying on a certificate

• **Traceability of in the design and supply chain of products and services** becoming more and more important – suppliers role to pass the requirements on and exercise oversight of sub-suppliers

• The only way to make the amount of oversight work reasonable in supply chain is **use of graded approach**

• It is not just about the management system or quality (management or assurance) standards – also **the engineering standards** may have relevant requirements

• **Industry** initiated accreditation programme and any cooperation sound good ideas – it is about the industry to work together!
FORTHCOMING IAEA MEETINGS

**TM** on Quality Assurance and Quality Control Activities in Nuclear Power Plants: Lessons Learned and Good Practices, Vienna 12-15 Nov

Technical Meeting on Supply Chain Management and Oversight of Service Suppliers, In Paris/France or in VIC/Vienna, 2019
Thank you!

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