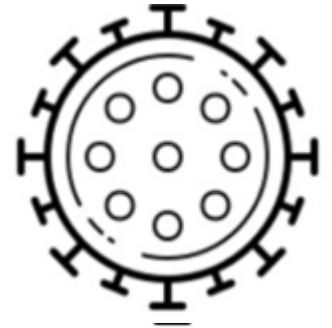




Nuclear Power & Engineering Webinars: COVID-19 and the Nuclear Supply Chain – What have we learned?



**September 9, 2021
14:45 to ~16:00 CEST**



I am your Moderator:

Dr. Pekka T. Pyy
Senior Expert (Organisation and Management Systems)
IAEA Nuclear Energy, Division of Nuclear Power



IAEA

International Atomic Energy Agency

By attending this webinar, you will:

- Recognize the importance of the nuclear supply chain and how it has impacted by the COVID19 pandemic during the past 18 months,
- Learn about key challenges and how they have been and are being managed, and
- Obtain lessons learned and good practices from the speakers' examples related supply chain influence on to, e.g. nuclear power plant operations, outages and nuclear projects during the pandemic



The operation, safety and security of nuclear and radiation facilities and activities during the COVID-19 Pandemic, Report by the Director General, GOV/INF/2020/8, 4 June 2020

“The COVID-19 pandemic is a common concern. Response actions have been implemented by operating organizations and regulatory bodies in Member States to ensure safety, security and reliable generation of electricity, production of isotopes or supply of other relevant products and services to the extent possible. Supply chains, however, must continue to be monitored to ensure that latent risks from broader industrial shutdowns are properly managed to ensure future nuclear installations safety, security and reliability.”





IAEA

International Atomic Energy Agency



Marc Tannenbaum
Senior Technical
Executive
EPRI, USA



Jaana Isotalo
Senior Vice President
HR & Communication
TVO, Finland



Leonid Letchford
Head, Quality
management
department
Rosatom, Russia



Stuart Allen
Principal Inspector
& Supply Chain
Lead
ONR, UK

Marc Tannenbaum, Electric Power Research Institute

Marc is a senior technical executive at the Electric Power Research Institute (EPRI) where he is responsible for procurement engineering and supply chain projects including commercial grade item dedication, reverse engineering, obsolescence management, and quality of procured items. He is also responsible for EPRI's Joint Utility Task Group (JUTG) on procurement engineering.



Lessons-Learned during COVID-19

Marc H. Tannenbaum
Senior Technical Executive

IAEA Webinar
September 9, 2021



www.epri.com

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Current COVID-19 Status

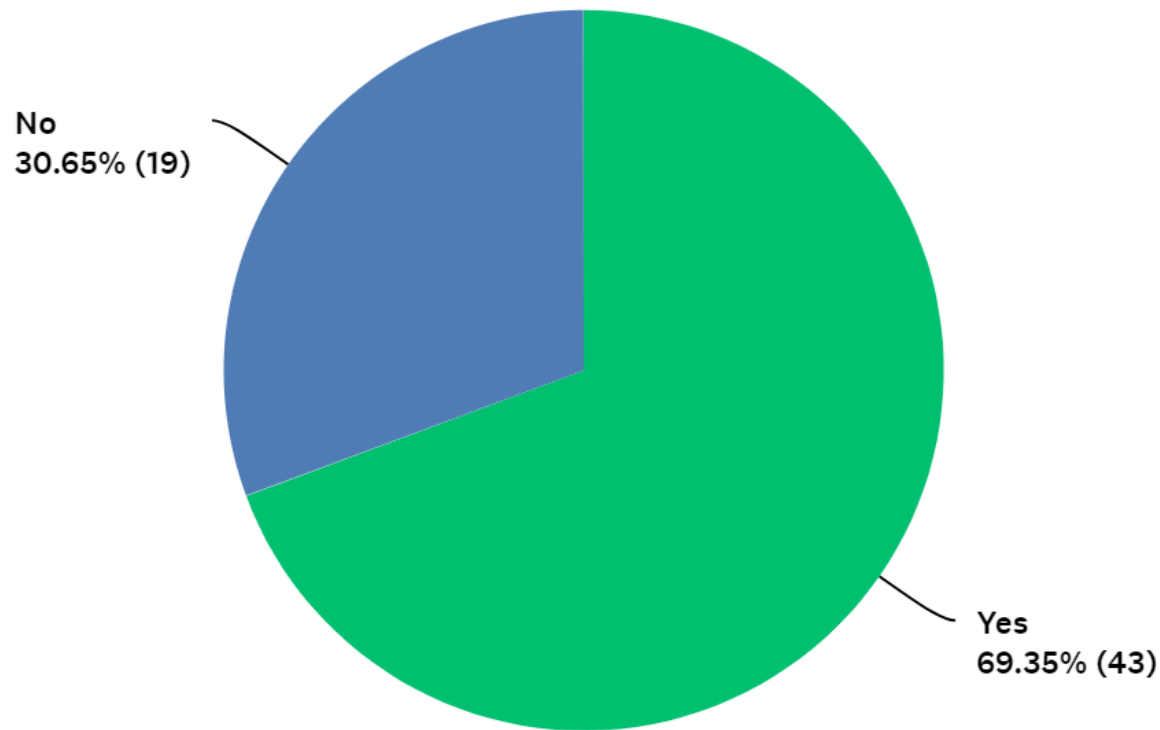
Delta variant has resulted in North American utilities reinstating mask wearing indoors at their facilities regardless of vaccination status (may not be required when alone in offices)

Some are considering reinstating testing requirements

Some have returned to the office, some have not, some are planning for permanent hybrid work arrangements

All appear to have stable sources of supply for personal protective equipment (PPE), test kits, and other pandemic-related items

Have you made any changes due to the pandemic that are beneficial and will be kept after the pandemic is over?



Enhanced Remote Work and Communication

Remote Work

- Permanent hybrid arrangements – two or three two days per week in the office, balance remote
- Increased productivity noted for many staff roles
- Saves time and is more efficient
- Significantly improved Procurement Engineering work production/backlog reduction
- Increased flexibility from a personal perspective

Remote communication

- Daily touch points between procurement engineers has enhanced teamwork
- Communication is more effective
- Improved digital communication tools
- Improved strategic priorities
- Some meetings are more practical to have online with the collaboration/screen-share functions built into the programs
- Improved use applications such as Teams to share documents and drawings
- Increased options for online training and attending conferences virtually when not practical to attend in person
- Time saved by corporate management by not travelling to all plants in the fleet

Other beneficial changes



Increased agility in the way work gets done



Increased use of paperless processes



Digital stamping of documents is saving time



Digitization of radiography



Improved IT security, software and procedures

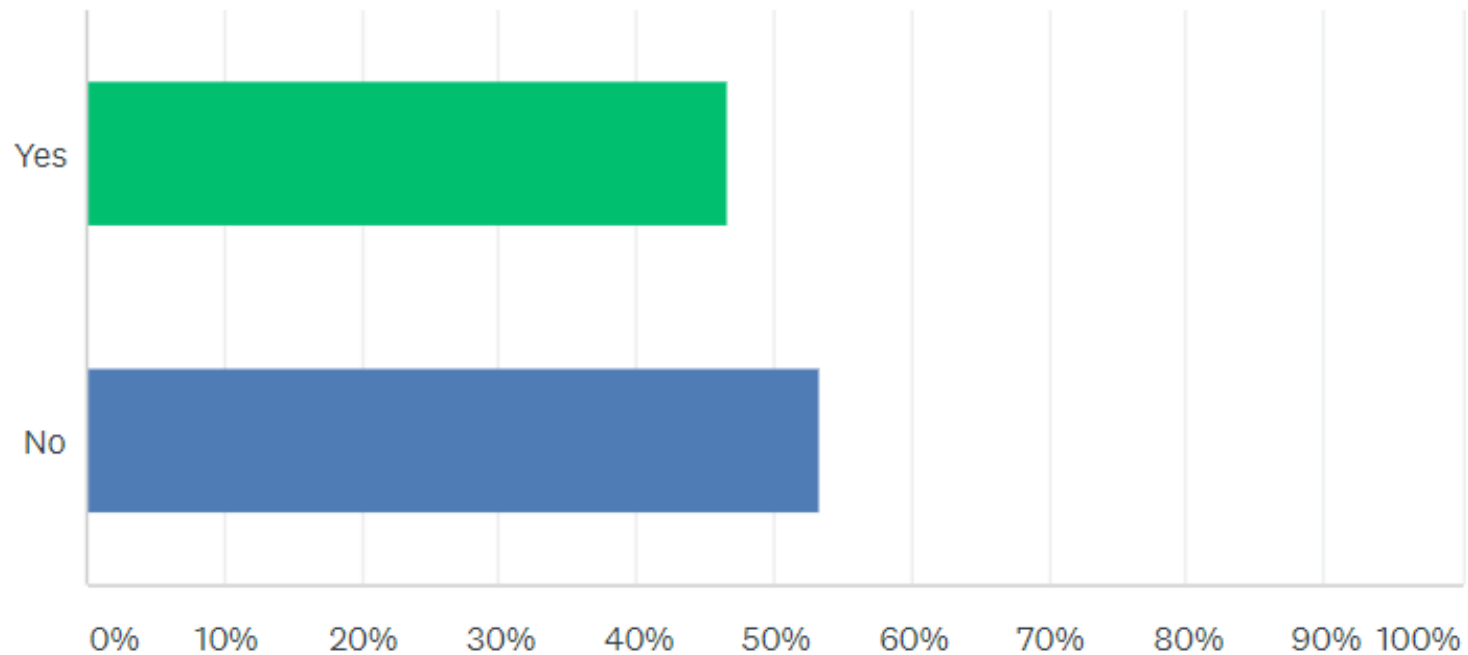


Better risk management

Split our test lab to avoid one case of COVID taking out our entire testing capabilities

Able to quickly implement CDC guidelines as they emerge

Are you having issues qualifying suppliers due to the pandemic?



Remote Supplier Source Verification and Assessment is possible

Remote Source Verification
during a Pandemic or Similar
State of Emergency, Screening
Criteria and Process Guidance

EPRI 3002019436-A

Published April 4, 2020

*“-A” version published October
2020*

(includes NRC safety evaluation report)

- Screening criteria to determine eligibility for remote source verification
- Process for establishing objectives, primary plan, and contingency plans
- Discussion on use of

Remote Assessment
Techniques: Planning and
Conducting Audits and Surveys
Using Remote Techniques
During Exigent Conditions

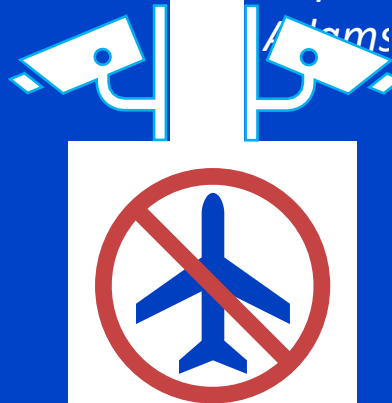
EPRI 3003030796

Published April 15, 2021

*NRC issued a Safety Evaluation June 22
that accepts use of the EPRI guidance as
a way of meeting regulatory*

requirements during a pandemic (NRC

- Fully Remote (all team members are remote – evaluation per guidance concludes on-site presence is not required)
- Provisional Remote (all team members are remote – evaluation per guidance concludes on-site presence is required)
- Hybrid (> 1 team member on-site)



Remote assessment and source verification



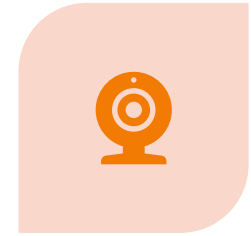
IMPLEMENTED THE EPRI DOCUMENT FOR REMOTE SURVEILLANCE AND PLANNING TO IMPLEMENT THE EPRI DOCUMENT FOR REMOTE AUDITING



INCREASED PLANNING AND DISCUSSION WITH VENDORS PRIOR TO AUDITS AND SURVEYS MAY BE HELPFUL IN NON-PANDEMIC CONDITIONS



REMOTE INSPECTIONS CAN BE A RESOURCE SAVER, PARTICULARLY WHEN SCOPE IS LIMITED



SUCCESSFUL REMOTE SURVEILLANCE, SUCH AS WITNESSING PUMP TESTING AND ASSEMBLY VIA LIVE VIDEO STREAM



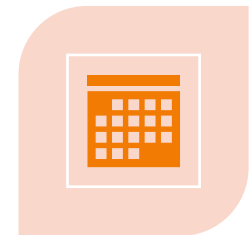
WE NOW HAVE SIGNIFICANTLY ENHANCED REMOTE WITNESSING CAPABILITIES



INCREASED USE OF ONLINE REVIEW CAN ENHANCE EFFICIENCY OF SUPPLIER ASSESSMENTS



USE OF REMOTE TECHNIQUES FOR INTERNAL AUDITS AS WELL AS EXTERNAL ASSESSMENTS



ACTIVE PRIORITIZATION AND RESCHEDULING OF SUPPLIER AUDITS TO BENEFIT MOST WHEN TRAVEL IS POSSIBLE

Tips and Tricks for remote work

Over-communication is important – make use of video and teleconferencing tools

Hold daily staff alignment meetings. Supervisor to worker and supervisor to leadership meetings help ensure challenges and priorities are understood for the day

Establish a separate work location when working at home and mirror the equipment provided at the company office such as dual monitors

Develop personal start/stop times and consistent workday hours and patterns. Know when to “turn work off”

Take breaks every 2 hours

Check communications (email) often, but maximize productive time by limiting the amount of time spent responding to phone calls / emails

Stay logged in to instant messenger service all day and use end-of-day check-ins to help stay in touch

Plan the work and prepare documents and communicate from your remote (home) office – focus on submitting work for approvals when in the company office

Take advantage of Acrobat Pro’s (or similar software’s) digital signature feature

Together...Shaping the Future of Energy™



Jaana Isotalo

- Senior Vice President, HR & Communication, Teollisuuden Voima Oyj (TVO), Finland
- 20 years of experience in Nuclear industry (incl. final disposal organization)
- Dozens of international missions (IAEA, WANO etc.)
- Former IAEA staff member (NPES)
- Member of several nuclear related national and international working groups, boards and general assemblies
- Member of several (non-nuclear) companies executive boards
- Active citizen (Women in Nuclear, JCI, etc.)



Lessons learned from COVID-19 pandemic – CASE TVO

IAEA webinar on Covid-19 and the nuclear supply chain
2021-09-09



MAIN MEASURES AGAINST COVID-19

- The TVO Group's strategy based on a several-tier contingency plan
- The TVO Group's strategy aims to guarantee nuclear safety and the safety and health of people
- The measures updated and specified based on the epidemiological situation and the official guidelines of the Finnish Government

CURRENT COVID-19 STATUS

- Delta variant has resulted in Finnish utilities reinstating mask wearing indoors at their facilities regardless of vaccination status
- Remote work / work at the site / hybrid work arrangements





VEDÄ DRAG

Posiva

ODOTA TÄSSÄ
WAIT HERE



10-14 day quarantine, telecommuting, locking the access pass after 4 days, testing, face masks and respirators, take away etc..

Safety distance, temperature measurements, extensive cleaning and disinfection measurements, access restrictions

Lessons learned for future outages:
-Remote work opportunities
-Increased use of paperless processes
-Better risk management
-Logistics
-Development of ELearning opportunities



QUICK GUIDE
ANNUAL OUTAGES 2020
Successful outage with good energy



KEY FOR SUCCESS: COMMUNICATION AND COORDINATION

- COVID-19 Emergency Preparedness Organization
- Extensive internal and external co-operation
- COVID-19 hotline 24/7
- Clear, updated and simple instructions
- Several channels for sharing information
 - Intranet & external webpage
 - SMS service
 - On site screens





NEW WAYS FOR WORKING

- Not only technological change but also change in leadership and management!
 - Directors and managers are visible for staff members (video updates)
 - Cooperation with occupational health care
 - Take time also for informal meetings and get-togethers (with special arrangements)

LEADERSHIP IS NOT ONLY ABOUT WORK

- How ready nuclear industry is for the new leadership expectations?
- What are the long term impacts of COVID-19?

Thank you!



JAANA ISOTALO

SENIOR VICE PRESIDENT (HR & COMMUNICATION)

jaana.isotalo@tvo.fi | www.tvo.fi

Tel. | +358 50 327 6609

Teollisuuden Voima Oyj | Olkiluoto, 27160 EURAJOKI



Mr. Leonid Letchford

Since 2016: Head of Rosatom Quality management department

2011-2016: Supplier quality assurance director at Sukhoi Civil Aircraft

2008-2011 Supplier quality assurance director at GAZ Group

2001-2011: Purchasing and quality management positions at FIAT Group



Professional interests: IT, Digital transformation, Supply chain management, Quality management

Education: Master's in mechanical engineering, Postgraduate diploma in quality management studies



ROSATOM

COVID-19 and the Nuclear Supply Chain – What have we learned?

IAEA Nuclear Supply Chain Advanced Webinar #3

9 September, 2021

Leonid Letchford

Head of Quality Management Department

Challenges and victories

NEW LAUNCHES:

- Launch of a power unit with VVER-1200 reactor at the Belorussian NPP
- In Russia, second unit of Leningrad NPP-2 also began operation with VVER-1200 reactor
- In 2020 the world's first floating nuclear thermal power plant “Akademik Lomonosov” in Chukotka region was put in operation
- An agreement was signed for construction of low-power nuclear plant in Yakutia.
- First Wind power plant of Rosatom was put in operation
- New nuclear-powered icebreaker “Arctica” took its maiden voyage



Against COVID-19

Coronavirus cases in ROSATOM:

- ~ 50k recovered
- ~ 1,5k active cases

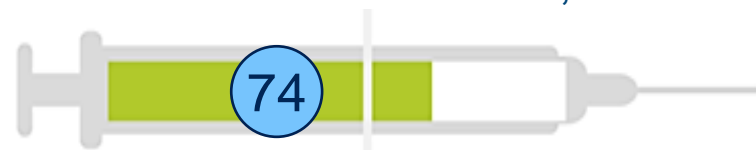


COVID-19
hotline

More than 25 000 remote
workplaces



Vaccinated in ROSATOM, %



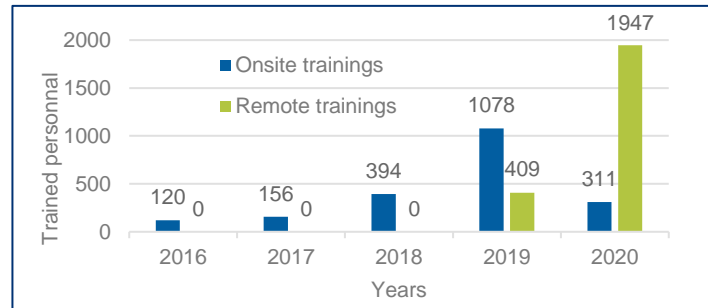
Rosatom researches in the midst of the fight against COVID-19 were used. Several tens of millions of medical masks have been sterilized using radiation technologies. Sarov nuclear center created the device “Tianox” for the treatment of patients with nitrogen monoxide obtained from the air. It allows to abandon the use of cylinders and significantly increase the availability of this method of treatment

Remote work

Remote education



РЕКОРД mobile
Education
★★★★☆ 16



Remote desktop



Remote communication



Atom Space
Business
★★★★☆ 14



IVA VCS
Online Videoconference Se...
★★★★☆ 35

Participating
in video events



Remote assessment

Supplier audits

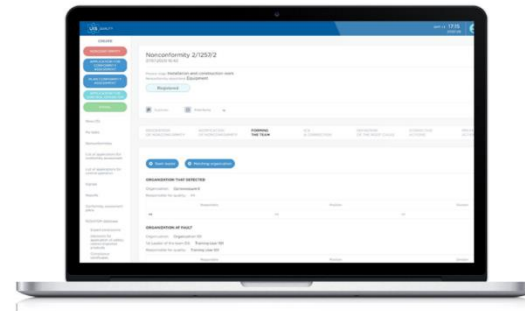
Incoming inspections

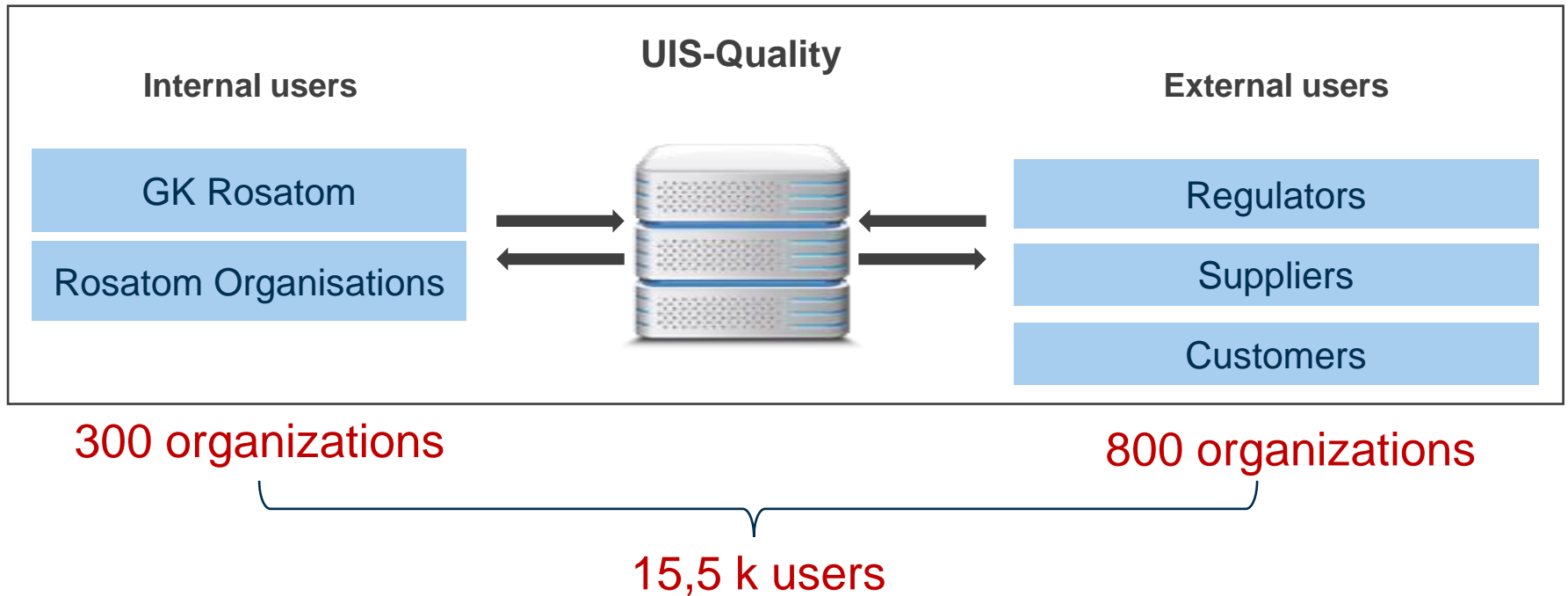
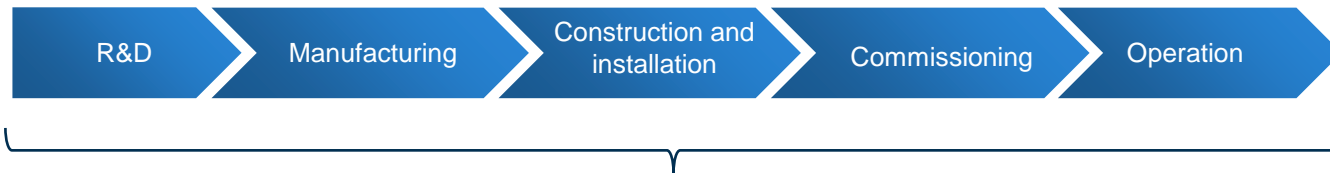
Conformity assessments

Surveillance

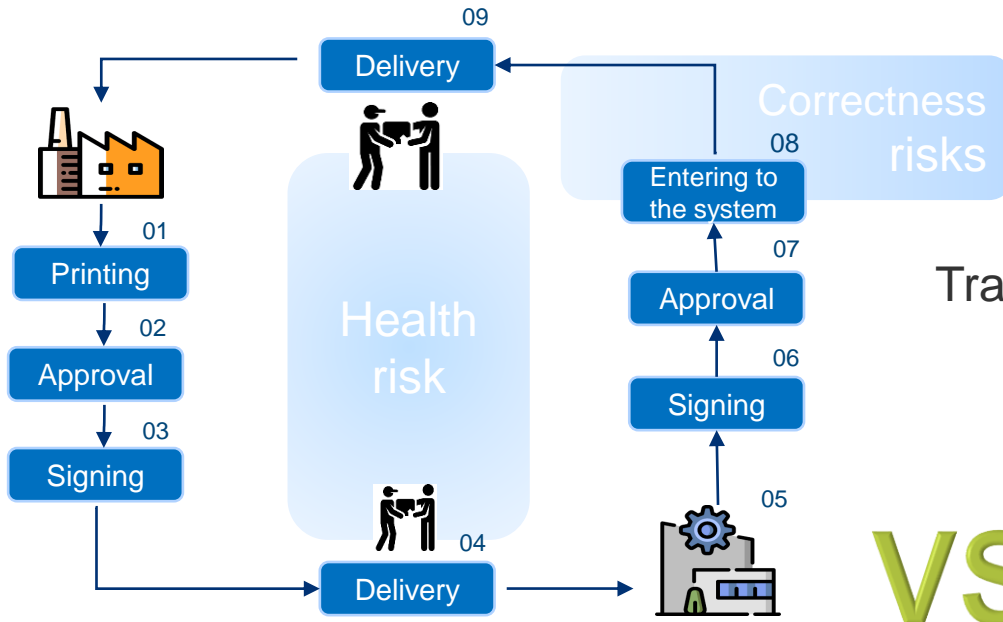


UIS-Quality





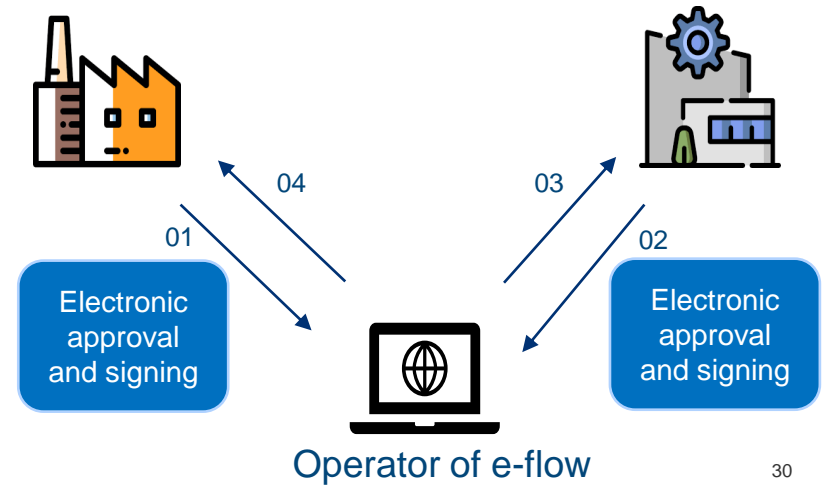
Paperless workflow



Traditional document flow

VS

New paperless flow (e-flow) with e-signature



Supplier audits



Launch

Procedure

- Rules and regulations for remote assessment

Training

- Additional web training for auditors has been organized

Realization

- Pilot audits have been conducted

Procedure

Self-assessment before the audit, by filling the checklist

Analysis of the audit checklist and submitted documents

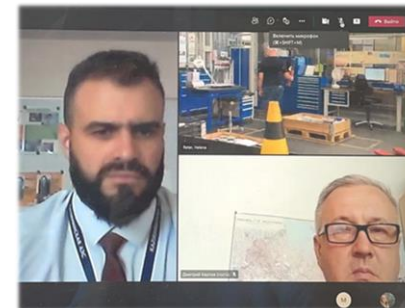
Video communication with the auditee

Audit Report



6.3 Mitarbeiter / Man-Power	Actual Manpower / Number of employees	Audit Manpower / Number of employees
Produktionsbereich / Production	100	100
Wartung / Maintenance	10	10
Engineering / R&D	10	10
Administrative / Administration	10	10
Quality Management / Quality Management	10	10
HR / HR	10	10
Finance / Finance	10	10
IT / IT	10	10
Other / Other	10	10

7.3 Factory Layout - see next page



Remote product evaluation



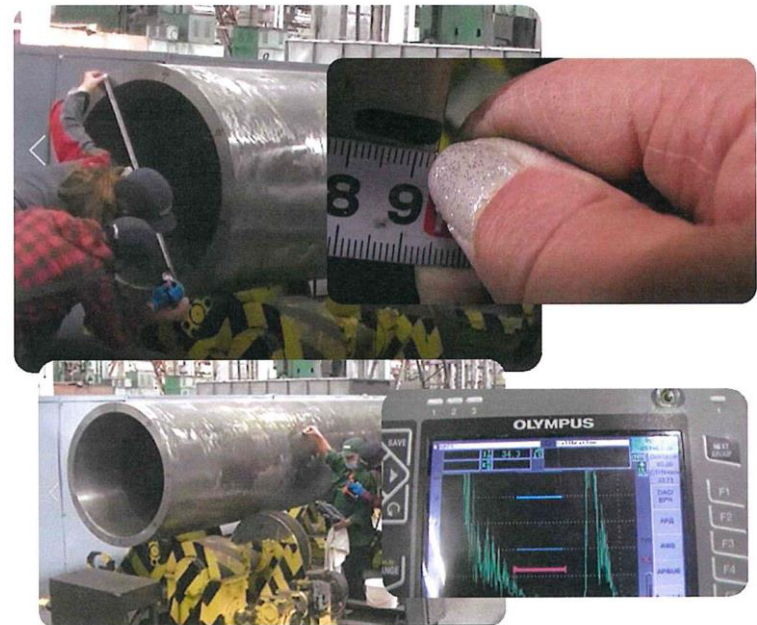
Pilot project at “Turbine Technology” AAEM



More than 20 events were held

Completion of key events on time for Tianwan NPP.

Money saved:
> 5 000 000 €.



Thank you for your attention

Leonid LETCHFORD

Head of Quality management department

Tel.: +7 (495) 969 29 39, ext. 3561

E-mail: LNLetchford@rosatom.ru

www.rosatom.com

31.08.2021



Stuart Allen, ONR

Stuart is the ONR's Supply Chain specialism lead. He has worked in the UK nuclear industry for over 30 years, and prior to joining ONR in 2013, he held a variety of senior licensee roles across the generation and decommissioning sectors.

In ONR he has established the Supply Chain professional discipline and led ONR's enhanced licensee and stakeholder engagements both nationally and internationally.

He is the Chairperson of the Multinational Design Evaluation Programme - Vendor Inspection Cooperation Working Group, an international cohort of supply chain regulation specialists whose main objectives are to cooperate on supply chain regulatory activities and share related experiences.





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International Atomic Energy Agency

QUESTIONS AND ANSWERS SESSION



Marc Tannenbaum
Senior Technical
Executive
EPRI, USA



Jaana Isotalo
Senior Vice President
HR & Communication
TVO, Finland



Leonid Letchford
Head, Quality
management
department
Rosatom, Russia



Stuart Allen
Principal Inspector
& Supply Chain
Lead
ONR, UK

EXAMPLES ON IAEA COVID-19 RELATED RESOURCES

COVID-19 WEBPAGE:

<https://www.iaea.org/topics/covid-19>

COVID-19 WEBINARS:

<https://www.iaea.org/topics/health/infectious-diseases/covid-19/webinars>

COVID-19 OPEX NETWORK:

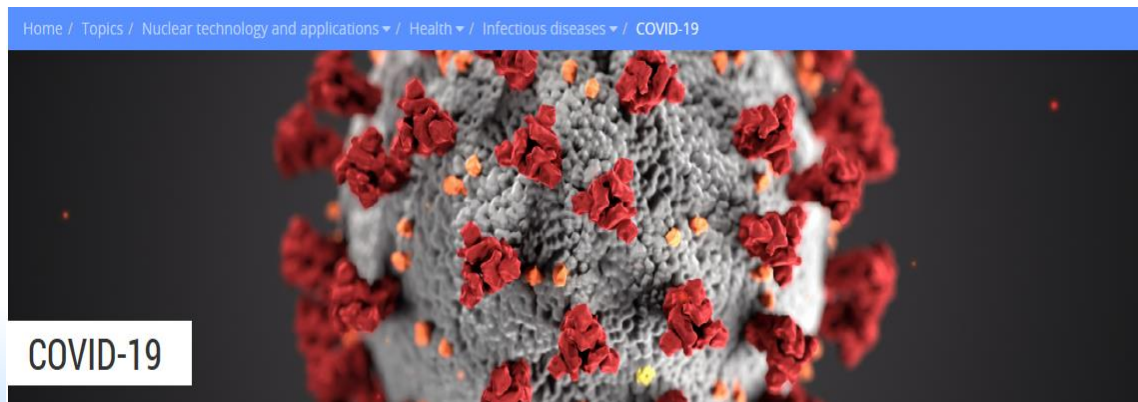
<https://www.iaea.org/resources/databases/covid-19-npp-opex>

Report by the Director General, The operation, safety and security of nuclear and radiation facilities and activities during the COVID-19 Pandemic, GOV/INF/2020/8, 4 June 2020:

<https://www.iaea.org/sites/default/files/20/06/govinf2020-8.pdf>

Progress update II:

[gc65-inf7-8-9_0.pdf \(iaea.org\)](#)



Nuclear Supply Chain Introductory Webinars



- Covid-19 and Its Impact on the Nuclear Power Supply Chain (9 July)
- Nuclear Supply Chain Management – The Global View (3 December)
- Requirements to the Supplier – Why are they important and where do they come from? (16 December)
- How to Find Good Suppliers – and how to know if they are good for you (14 January)
- Supply Chain Management Strategy – How to simplify the complex? (28 January)
- Supervising the Supply Process – What do you need to do? (11 February)
- Non-Conformances – What are they and how to manage them? (25 February)
- Delivery Process Final Stages – What do you have to Remember? (18 March)

Nuclear Supply Chain Advanced Webinars



- Counterfeit, Fraudulent, and Suspect Items – What do you need to know? (6 May 2021)
- Use of Commercial Grade Items - When and how? (9 June in cooperation with NNF21)
- COVID-19 and the Nuclear Supply Chain – What have learned? (9 September in cooperation with FORATOM)
- Obsolescence and inventory – Are there good practices?
- Innovations (such as Advanced Manufacturing) – Solution or threat?
- Remote and Hybrid Verification – What have we learned?
- Graded Approach – What are its secrets?
- Supply of service – How is it specific?



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International Atomic Energy Agency

Thank you all for your participation!

Stay healthy!

MSN.Contact-Point@iaea.org

IAEA Nuclear Supply Chain and

Covid-19 related activities



*IAEA DG Grossi: “The COVID-19 pandemic is a common concern. Response actions have been implemented by operating organizations and regulatory bodies in Member States to ensure safety, security and reliable generation of electricity, production of isotopes or supply of other relevant products and services to the extent possible. **Supply chains**, however, must continue to be monitored to ensure that latent risks from broader industrial shutdowns are properly managed to ensure future nuclear installations safety, security and reliability.”*

The COVID-19 NPP OPEX Network



- Provides a limited access platform for peer-to-peer sharing of COVID-19 related mitigating measures and impact on nuclear power plant performance
- The areas include: operation, maintenance as well as the implementation of refuelling and maintenance outages.
- Intended users include plant operators and related organizations.
- Number of Entries to the COVID OPEX Network – 26 from 9 Member States and 4 International Organizations
- Number of PRIS (<https://pris.iaea.org/PRIS/home.aspx>) data responses: 76 from 27 Member States
- Weekly (bi-weekly) reports – restricted distribution

Summary of the Covid-19 experience



- The Agency has received reports of impact on plant operation from fourteen Member States and examples of the impact included modifications to shift arrangements, training and access restrictions.
- Organizations implemented predetermined actions from already prepared pandemic plans designed to ensure safety, security and continuity of business, and adapted them as the pandemic progressed.
- No Member State reported the enforced shut down of any nuclear power reactors resulting from the effects of COVID-19 on their workforce or essential services such as supply chains.
- In some cases, economic slowdowns led to decreased energy demand leading to the operators to reduce power or even shutdown.
- Pandemic mitigation plans at some facilities result in a need for more authorized or licensed personnel. This need is being satisfied by newly trained as well as previously qualified staff, including recent retirees and instructors. However, this approach in itself is facing challenges in maintaining the required quality and quantity of training in the context of other restrictions limiting the ability to assemble employees.

Summary of the Covid-19 experience



- The IAEA received reports of outage impacts at NPPs in 26 of the 30 Member States with operating NPPs. In some cases, outage scopes were reduced by eliminating non-critical work to minimise external staff brought on-site.
- In other cases, outages were extended to allow work to proceed at a slow pace that accommodated physical distancing constraints. In still other cases entire outages were deferred to next year. The full impact will play out over at least the next year as future outage plans are revised to complete deferred work.
- Some Member States reported that work management practices were adapted by reviewing maintenance and surveillance tests to identify which activities could be postponed without any impact on regulatory requirements, safety or reliability. This assessment involved reviewing required materials and spare parts to ensure critical item availability and evaluating upcoming outage plans to minimise access of contractors.
- Support staff adapted to remote working through maximised use of IT platforms and distance collaboration tools. Some facilities have decided to reduce, postpone or cancel work of contractors on the site during the COVID-19 pandemic.

Summary of the Covid-19 experience



- Only vital refurbishment projects were carried out sometimes with schedule changes. The pandemic's broad impact on the global economy and industrial activity will continue to challenge the global supply chain for months or years to come. That impact could threaten NPP performance over the interim- to long-term, for example, delaying long lead time items for new build or major refurbishment projects.
- Newbuild projects affected in many ways and cases, but the exact impact is difficult to evaluate - pandemic impacted resources being applied to construct new plants at least in Belarus, United Arab Emirates, Turkey and Bangladesh, but did not stop the construction activities. The impact on schedules continues to be assessed (and e.g. remote auditing and inspections piloted)
- Owners and operators have been nimble in adapting to the changing situations - Ongoing and future challenges include the implementation of planned maintenance activities to ensure interim- to long-term reliability.
- Current mitigation actions minimise the site presence of external staff by deferring online and outage work that is not necessary to ensure safety. This work is being rescheduled, but uncertainties regarding how the pandemic might progress are posing a challenge for many Member States.

FINALLY

- Little or no impact through manufacturing bottlenecks reported – this may however still happen as all the parts of the supply chain have been affected (demand, supply, sub-supply)
- Decisions made by governments and companies have direct and indirect repercussions to organizations in the nuclear and radiological field, for example in the area of human resources.
- Decisions in one country could have affected facilities in other countries, for example through introducing supply chain difficulties in large scale projects such as outage management, major refurbishment or new plant construction.
- Special skillsets workers' (like testing, inspection, installation and commissioning of special equipment, etc.) mobility has been assured in some cases by e.g. special governmental permissions and using private transport (like charter flights) – what will happen when certificates expire (extended on which conditions/remote audits/hybrid audits?)?
- How to use knowledge obtained during this pandemic to plan robust actions for the potential coming large disturbances? IT role? New ways to work together? Need cultural changes?

Management of the nuclear supply chain



Management systems

Nuclear operators and managers depend on chains of suppliers of both products and services to be able to produce nuclear energy. These suppliers provide products and services in all phases of a reactor's life cycle: design, construction, commissioning, operation and decommissioning.

Effective and efficient oversight of the global nuclear supply chain is crucial in both nuclear new build and operating nuclear facilities.

The successful implementation of management of quality, as a part of a power plant's management system, including quality assurance and quality control, is essential in providing confidence in the nuclear industry. A high degree of reliability and integrity is required of products and services. Failure of structures, systems or components to perform their intended function, or resolve their poor performance, could adversely affect the economy as well as safety and confidence in nuclear energy.

The IAEA supports the development of proactive management systems of supply chains, well-planned procurement by the owners and operators, quality assurance/quality control systems and aims to facilitate co-operation in the nuclear industry in these areas.

This includes supporting Member States and nuclear operating organizations in dealing with supply chain challenges. In recent years, both the construction and operation of nuclear power plants have experienced difficulties related to their supply chains. There have been project delays and even temporary shutdowns of reactors due to detection of counterfeit items, obsolescence of original technology and licensing to incorporate a greater amount of digital instrumentation and control technologies. At the same time, new technologies such as advanced manufacturing and remote inspection provide avenues for

News



New Toolkit for Nuclear Supply Chain Management











Nuclear Power Operators Use Remote Assessments to Overcome Pandemic Mobility Restrictions

[More news →](#)

Access

Management System Network

Related resources

-  Nuclear Supply Chain Webinar Series
-  COVID-19
-  Energy
-  Capacity building supporting long-range sustainable nuclear energy system planning
-  Division of Nuclear Power
-  Nuclear Power Engineering Section
-  Department of Nuclear Energy Webinars
-  IAEA Department of Nuclear Energy

Management System Network(MSN) of Excellence

Home > MSN

MSN

Events

MSN Calendar

MSN Newsletters

CG Acceptance Publication

2019 Pilot Course on Nuclear Supply Chain Management and Procurement - Course Materials

Evaluation of Management Systems

The Nuclear Supply Chain Toolkit

The Nuclear Regulations and Standards Toolkit (under construction)

Recent

Management System Network of Excellence (MSN) ⓘ



The IAEA developed a dedicated Management System Network of Excellence (MSN) to facilitate and encourage enhanced co-operation and the exchange of knowledge and experience on management systems and safety culture in the nuclear industry and related disciplines throughout the world. The MSN is one of the networks of CONNECT. CONNECT is a web-based platform hosted by the IAEA on behalf of its Member States that will provide a gateway for interconnecting IAEA networks, increasing the participation of individuals and organizations involved in them, and making available additional sources of information that complement existing training workshops and meetings.

Amongst the features provided by CONNECT the MSN will provide the following features related to management systems and safety culture:

- Overview of important meetings
- Discussion forums on both common and special topics
- Expert search function; find the person who can help you with your problems
- Library of documents, presentations, videos, software tools, glossaries, and other resources
- E-Learning: nuclear education and training, on demand video, and archived presentations and seminars
- Resources, including calendar of meetings and events, training courses, webinars, and online meeting workspaces

For further information or questions please contact MSN.Contact-Point@iaea.org

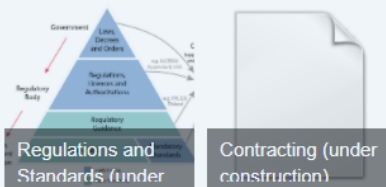
For additional information, please visit:

[IAEA NSNI Meetings and Workshops on the Topics of Management, Leadership and Culture for Safety](#)

[Human and Organizational Factors](#)

These sites are an information hub where presentations and relevant information from held events in the area is made publicly available to be shared and spread among stakeholders.

Toolkits



Let's Interact – **POLL TIME !**



What would you see as the best ways to improve the situation with supply chain management in case of a new pandemic or other type of large disturbance?

- Remote (hybrid) evaluations/audits/inspections
- Shortening the supply chain (more local suppliers of products and services including using own staff where possible)
- IT solutions (paperless processes, remote audit & oversight of the delivery process, use of blockchain, etc)
- Additive manufacturing (e.g. in 3D printing centres)
- Change in business processes (plan for disturbances)
- Cultural change in ways to work together (better leadership of remote teams etc.)
- No changes are necessary
- Something else (please, add your candidate in chat and the post Webinar questionnaire)

Check all the alternatives that apply.

Please act now so we may all see the results in almost real time!

Let's Interact – **POLL TIME !**



What is your organization's experience with (nuclear) supply chain during the COVID-19 pandemic?

- ❑ We have experienced shortage or difficulty to get safety related products (e.g. components, protective equipment) needed
- ❑ We have experienced shortage or difficulty to get non-safety related products (e.g. components) needed
- ❑ We have experienced difficulty to get suppliers of services or technical support (incl. audit and inspection providers) to our site
- ❑ We have experienced increase in price of products or services
- ❑ We proactively ordered products or made other arrangements to avoid any shortages
- ❑ We proactively have taken responsibility to produce services with our own staff or taken other arrangements
- ❑ We had to shut down or reduce production due to the pandemic
- ❑ We really have not seen any difference during the pandemic

Check all the alternatives that apply.

Please act now so we may all see the results in almost real time!