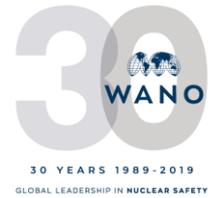




30 YEARS 1989-2019

GLOBAL LEADERSHIP IN **NUCLEAR SAFETY**

WANO'S CONTRIBUTION TO SAFE NUCLEAR POWER DEVELOPMENT



Tom Mitchell

WANO Chairman

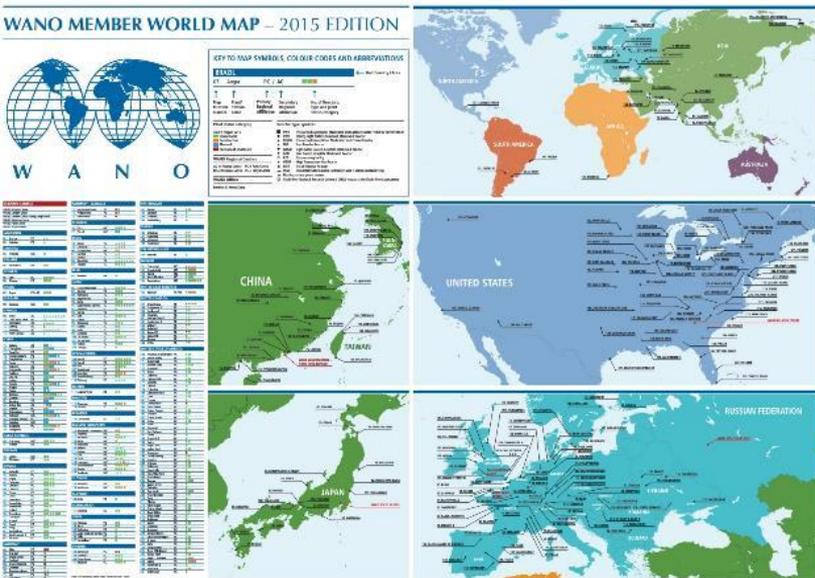
65th Anniversary of Nuclear Power, Obninsk, Russia

Wednesday 26 June 2019

DISTRIBUTION CLASSIFICATION :

GENERAL

WANO Heritage/Membership



- WANO was established in Moscow in 1989 and it brought together the world's commercial nuclear power operators.
- WANO's focus since has been to achieve one goal: excellence in nuclear safety.
- Membership is voluntary and every commercial nuclear power plant across the globe is a member.
 - Operating companies
 - Owners
 - Others with significant impact on nuclear safety
- More than 120 members work together to achieve the best possible safety standards.

WANO Member World Map is available at www.wano.info

To maximise the safety and reliability of nuclear power plants worldwide by working together to assess, benchmark and improve performance through mutual support, exchange of information, and emulation of best practices.

OUR MISSION



WANO

GLOBAL LEADERSHIP IN NUCLEAR SAFETY

Post Fukushima Commission (PFC)



- After Fukushima, there was a collective resolve among our members to learn lessons from the accident to improve overall safety further.
- WANO established the post Fukushima commission in 2011 and identified 12 key post-Fukushima projects for members to implement to enhance safety/performance.
- Many recommended improvements were complex and challenging, and required a significant investment of time and resources to roll out and complete.
- By overseeing the delivery of the projects, WANO improved its capabilities and significantly drove forward safe nuclear power development.

Progress after Fukushima

- ◇ WANO and its members delivered 12 post-Fukushima projects for over 460 commercial power plants worldwide to enhance safety.
- ◇ These projects included improving areas such as: emergency preparedness, peer review frequency and equivalency, corporate peer reviews and onsite fuel storage.
- ◇ A key improvement was to increase the frequency of peer reviews to once every four years, with a follow-up at the two-year point; by receiving a more regular evaluation of performance, members are more likely to achieve a more sustainable uplift in safety levels.



Peter Prozesky, Chief Executive Officer at WANO

“These 12 projects have been successfully delivered by WANO and its worldwide membership. The lessons learned from Fukushima have resulted in our members collectively implementing a total of approximately 6,000 safety enhancement activities worldwide. Overall the margin of nuclear safety has been improved since Fukushima.”

The Link between Leadership and Safety



- WANO is working with its members to further develop leadership at the mid-to senior management level.
- These managers at nuclear power plants play a vital part in delivering excellence and a strong nuclear safety culture, due to their positional influence throughout the organisation.
- **Effective leadership capability and application** is the single most important factor in overall station performance.
- WANO encourages members to use WANO's leadership training documents and materials as benchmarks in leadership development.

Support for New Units/Entrants

- WANO contributes to safe nuclear power development by providing:
 - New Unit Assistance (NUA)
 - Pre-Startup Peer Reviews (PSURs)
 - Leadership training
 - Access to construction Operating Experience (OE)
 - Participation in working groups and workshops
 - Member Support Missions
- Typically WANO conducts about 45 NUA activities per year.



Support for New Units/Entrants



- WANO provides a Pre Start Up Peer Review (PSUR) to every new unit before initial criticality.
- There is some similarity to IAEA pre-OSART, but PSUR is less focused on engineering/regulatory issues.
- PSURs are more focused on **operational readiness, safe start-up and reliable initial operation** and WANO Performance Objectives and Criteria (PO&C) are used as the criteria.
- Since 2016, WANO has completed 150 NUA missions for members and also organised workshops and seminars, an industry working group and hosted a conference on new unit assistance.
- WANO has conducted NUA in Belarus, China, Finland, France, Hungary, India, Pakistan, Russia, Slovakia, United Arab Emirates, and the United Kingdom.

After 30 Years, What's Next?

- ◇ WANO was created to contribute to safe nuclear power development and implementation - WANO has refined its tools to do both more effectively and efficiently.
- ◇ Going forward, it is important that each WANO member has a clear understanding of the performance of each unit in the industry against **WANO Performance Objectives and Criteria.**
- ◇ We must ensure that **WANO peer reviews and plant monitoring** efforts are accurate and timely.
- ◇ WANO needs to provide more focus on **helping members address gaps between peer reviews.**



THANK YOU FOR LISTENING

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Public

wano.info

WANO Members

members.wano.org