

**Remarks by Tom Mitchell Chair, WANO**

**June 26th, 2019**

**On the Occasion of the 65th Anniversary of Nuclear Power**

**Obninsk Russia**

**“WANO’s Contribution to Safe Nuclear Power Development”**

**HOLDING SLIDE: 30 YEARS OF WANO (LOGO)**

*Short speech to audience before starting presentation*

*Good afternoon, ladies and gentlemen. Before I begin my presentation, I wanted to let you know how honoured I am to attend this event here today. As we know, those pioneering scientists and technicians at Obninsk played a key inspirational role in the development of commercial nuclear power 65 years ago. It is a testimony to them to see how far the nuclear industry has come – nuclear power now contributes around 11 percent of the world’s electricity. On behalf of WANO, I am delighted that we can celebrate this key milestone here in Obninsk with you and also mark both our 30th year and the Nuclear Society of*

*Russia's. It is appropriate that we are here as WANO was first established in Moscow 30 years ago, and our colleagues here have contributed so much towards our global mission to maximize nuclear safety.*

*I also wanted to share with you the fact that I have had the pleasure of visiting Russia several times in my career. The only time in my life that I have been above the Arctic Circle was a peer review visit to Kola Station: it was very beautiful during the short summer! I also remember the last WANO Biennial General Meeting held in Moscow where we celebrated the 25<sup>th</sup> Anniversary of WANO. Dinner at the Kremlin was a fitting way to mark that occasion with appropriate style. It is good to be back in Russia and thank you inviting me to this important occasion.*

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## **INTRODUCTORY SLIDE: WANO'S CONTRIBUTION TO SAFE NUCLEAR POWER DEVELOPMENT**

While it is not WANO's role to advocate for nuclear energy, every credible study that I have seen recognizes that the increased use of nuclear energy is the only feasible way to achieve rapid de-carbonization of the scale needed to mitigate global climate change and to provide large scale carbon-free energy to growing economies. We cannot as a society afford to lose the option of nuclear energy because of another serious event or accident.

In my 42-year nuclear career, there have been three major core-damaging accidents at commercial nuclear power plants: TMI, Chernobyl, and Fukushima.

The impact of these accidents on the industry has been extraordinary in terms of damage to reputation, weakened growth, and spiralling costs.

### **SLIDE 1 – WANO’S HERITAGE/MEMBERSHIP**

So what is WANO’s contribution to nuclear safety? WANO was formed by the world’s nuclear power operators in Moscow 30 years ago, with one goal – to achieve excellence in nuclear safety. It was a momentous event – the coming together of the world’s operators regardless of geography or political affiliation – to maximise safety. Since then, despite Fukushima, the overall margin of safety and performance of the world’s plants has improved. In WANO’s early years, we had agreement between our members that limited activities to the sharing of operating experience and information on events. Since then the collaboration and information sharing between our members has improved significantly. However my message to our members and all those here today is that we should always seek to improve nuclear safety and performance.

### **SLIDE 2 – OUR MISSION**

Each WANO member is ultimately accountable for nuclear safety at their units. However, WANO, as outlined in our mission statement, has a key role too “...by working together to assess, benchmark, and improve performance at nuclear power plants across the world.” So we have a shared responsibility with our members to maximise safety and reliability at all member plants.

### **SLIDE 3 – POST FUKUSHIMA COMMISSION**

Fukushima showed us that there is more work to do, and there is no doubt that we can and must improve further. After Fukushima there was there was a collective resolve by WANO and our members to learn lessons from the accident and improve safety. Furthermore, improving WANO’s value and effectiveness for members was the mindset when in

April 2011 a post-Fukushima Commission was established. I was honoured to Chair that Commission for the nuclear industry.

The changes recommended by the Commission and implemented by WANO have greatly strengthened WANO's capabilities and thereby WANO's contribution to safe nuclear power development.

We recognize and appreciate the support of Moscow Centre Members, our Moscow Centre staff – and indeed many of you here today - in this effort.

**For existing NPPs:**

#### **SLIDE 4 - PROGRESS AFTER FUKUSHIMA**

Specifically, in 2011, WANO identified 12 key post-Fukushima projects to implement in more than 460 commercial power plants worldwide to enhance safety. Many recommended improvements were complex and challenging, and required a significant investment of time and resources to roll out and complete.

WANO and its members focused on the following 12 areas; emergency preparedness, emergency support plan, severe accident management, early event notification, onsite fuel storage, design safety fundamentals, peer review frequency and equivalency, corporate peer reviews, WANO

assessment, transparency and visibility and WANO internal assessment.

As Peter Prozesky, CEO of WANO has commented: “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 from the levels experienced before Fukushima.”

#### **SLIDE 5 – THE LINK BETWEEN LEADERSHIP AND SAFETY**

Another key area in which WANO is working with its members is 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.

In my experience as Station Director at two large NPPs and Chief Nuclear Officer at Ontario Power Generation in Canada, effective leadership capability and application is the single most important factor in overall station performance; WANO will continue to encourage Members to use WANO’s leadership training documents and materials as benchmarks in leadership development.

**For new members/units:**

## **SLIDE 7 – 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; and Member Support Missions.

Typically WANO conducts about 45 NUA activities per year in areas such as Nuclear Safety Culture; Operator Fundamentals, Crew Performance and Teamwork; Organisational Effectiveness and Oversight; Operational Decision Making; Training Programme Effectiveness; Significant Operating Experience Reports (SOER) and Emergency Planning Management and Leadership.

## **SLIDE 8 – SUPPORT FOR NEW UNITS/ENTRANTS**

Also, WANO provides a 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. WANO Performance Objectives and Criteria (PO&C) are used as the criteria.

Overall since it was established in 2016, WANO has completed about 150 missions under the NUA programme for its members. WANO has also organised workshops and seminars, established an industry working group and hosted a conference on new unit assistance. NUA missions

have been conducted in Belarus , China , Finland , France , Hungary , India , Pakistan , Russia , Slovakia , United Arab Emirates , and the United Kingdom.

### **The Implications for WANO Going Forward:**

#### **SLIDE 9 – AFTER 30 YEARS: WHAT’S NEXT?**

This year we are proud at WANO to celebrate our 30<sup>th</sup> Anniversary of service to our Members in their quest for excellence in nuclear safety. Our mission to maximize nuclear safety has been the overriding goal since the world’s nuclear operators signed the WANO Charter to form WANO at its first meeting in Moscow in 1989. And we acknowledge the achievements made in nuclear power development that started here 65 years ago.

WANO was created to contribute to safe nuclear power development and implementation and has developed and refined the tools to do so both more effectively and efficiently.

Going forward we believe that it is important that each WANO Member have a clear understanding of the performance of each unit in the industry to WANO Performance Objectives and Criteria; that WANO peer reviews and plant monitoring efforts are accurate and timely. And that WANO needs to provide more focus on helping Members address gaps between peer reviews. In my view Moscow Centre is a leader in providing on site and direct support to its members in this way.

So as WANO reflects on the past during this 30<sup>th</sup> anniversary year, we must also look to the future and re-affirm our commitment to WANO's mission – achievement of an improved level of nuclear safety performance worldwide that reduces the risk of another severe event. In this way the work set in motion here 65 years ago will continue to prosper and grow for the benefit of mankind.