

WANO Overview

- ❑ In 1979, the accident at Three Mile Island occurred; in Dec 1979 INPO (US) was formed,
- ❑ In 1986, the accident at Chernobyl occurred; in May 1989 WANO was formed,
- ❑ In March 2011, the accident of Fukushima occurred; in Oct 2011 WANO was renewed.
- ❑ The world's nuclear operators realized that an event at one plant would impact every plant.
- ❑ Four Regional Centres, and London office :
 - ❑ Atlanta, Moscow, Paris and Tokyo
 - ❑ London Office & Hong Kong Office (Sept 2012)
- ❑ Today every operator of a commercial nuclear plant is a member of WANO :
~ 130 members, 220 nuclear plants or reprocessing facilities affiliated to 1, 2 or more regional centres.



WANO Programs and Peer Reviews

WANO's activities are concentrated in four main programs:

1. **Peer Reviews**
2. **Operating Experience**
3. **Professional and Technical Development**
4. **Technical Support and Exchange**

The programs work together to drive continuous performance improvement

Peer Reviews help members compare their operational performance against standards of excellence through an in-depth, objective review of their operations by an independent team:

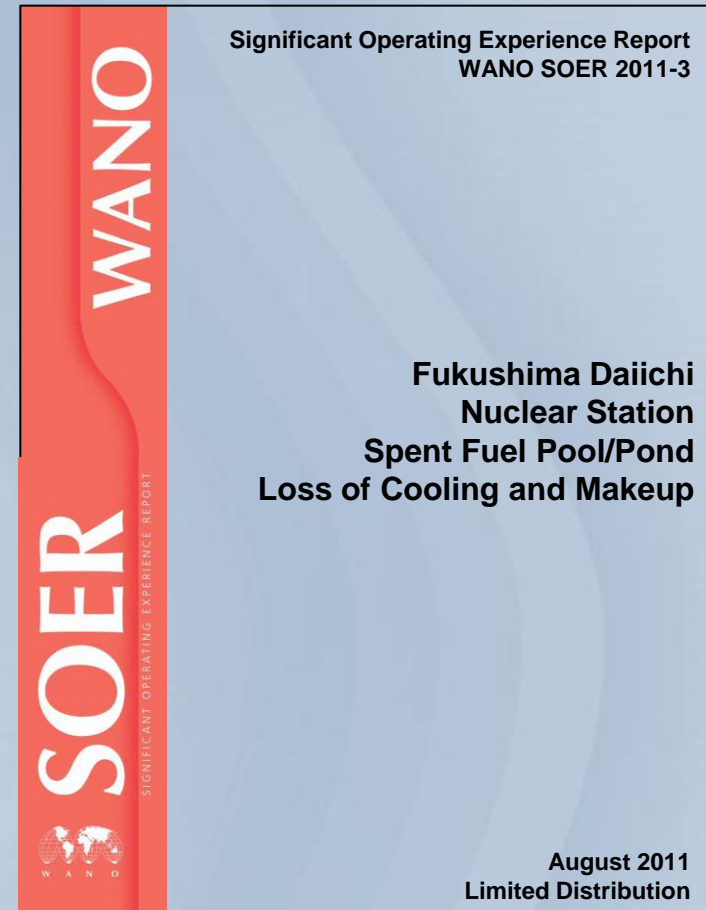
- **Station peer reviews**
- **Follow-up Peer Reviews**
- **Corporate Peer Reviews**
- **Pre-Start up Peer Reviews**



Operating Experience - Lessons learned from Fukushima

- ❑ Using of Operational Experience is a proven method to improve plant performance by applying the applicable lessons learned from past events.
- ❑ SOERs are written to address significant events or trends, including required corrective actions for WANO members
- ❑ WANO expects all its members to implement all SOER recommendations
- ❑ Compliance with all the recommendations is checked during Peer Reviews

- ❑ **SOER 2013-2 Post-Fukushima Daiichi Nuclear Accident Lessons Learned**
- ❑ **SOER 2011-4 Near-Term Actions to Address an Extended Loss of All AC Power**
- ❑ **SOER 2011-3 Fukushima Daiichi Spent Fuel Pool**
- ❑ **SOER 2011-2 Fukushima Daiichi Fuel Damage caused by Earthquake and Tsunami**



WANO after Fukushima

5 STRATEGIC ORIENTATIONS TO STRENGTHEN WANO AND ITS FOCUS ON NUCLEAR SAFETY:

- 1. To expand the scope of WANO's activities,**
- 2. To develop a worldwide integrated event response strategy,**
- 3. To improve WANO's credibility including important changes to WANO's peer review process,**
- 4. To improve visibility outside and transparency inside operators' community,**
- 5. To improve internal consistency (quality of assessments).**

The five recommendations have been transformed to WANO projects which shall be completed and implemented by 2015.

WANO after Fukushima

► Scope Expansion to address:

- Emergency preparedness fundamentals,
- Severe Accident Management, including procedures, training and readiness,
- Fuel pool and fuel storage cooling and contingencies,
- Multiple unit impacts and considerations for mitigation,
- Design safety fundamentals and continuous design improvement processes

► Implementation of a “Nuclear Safety Performance Assessment” process

► Special attention towards and stronger support to “plants of focus”

WANO after Fukushima

► Assessment program reinforced

From : 1 site Peer Review every 6 years
To : 1 site Peer Review every 4 years,
1 Corporate Peer Review every 6 years,
Systematic Pre-Start-up Peer Reviews,
Shutdown & restart reviews on-going in Japan.

A stronger follow-up Peer Review with a mandatory action plan update

Stronger focus of peer reviews on areas related to nuclear safety.

► Insist on stronger commitment by member CEOs and CNOs

► Conduct periodic internal peer reviews of WANO