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Operating Experience - Sharing and Learning

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Good morning.

In the next few minutes, I'll be talking to you about the WANO Operating Experience Programme.

I'll begin by giving you an overview of event reporting. Then I'll go on to present the OE programme products. I will conclude my talk by highlighting what we are focusing on now.

The Operating Experience Programme is at the heart of WANO. The programme was established in 1989. Over the years a strong network has been created with an average number 180 events being reported per year. The initiative to improve event reporting, launched back in 2002, has brought its own rewards and the number of reports has nearly doubled. This is great news. It shows a real willingness to share event information throughout the industry. But this substantial increase can't hide the fact that some important events pass by without being reported to WANO. WANO is working with individual members to improve things.

But how do we use this information?

In 1997, an internal WANO review indicated that members were not able to screen and study a hundred-odd reports for applicability to their operations, especially the smaller single-station utilities. Let's not forget a language barrier. As a result, the Operating Experience Central Team (OECT) was established. The OECT develops two major products: Significant Operating Experience Reports (SOERs) and Significant Event Reports (SERs). SOERs contain recommendations that are expected to be implemented. Implementation of the recommendations is evaluated during WANO peer reviews. Eight WANO SOERs have been issued to date.

WANO Significant Event Reports (SERs) represent another source of experience. SERs are written for events that are complex or have important underlying causes. SERs focus on the programmatic and management issues that led to the events. WANO members are expected to review the lessons learned from those events in the light of their own procedures and practices. Twenty-five SERs have been published to date.

At some point it became apparent that a new OE product was needed to inform members sooner when we see emerging trends in events.

In 2002, WANO 'Hot Topics!' were introduced to provide information about significant performance issues such as operational decision-making, electrical safety, radiological protection and foreign material exclusion.

Eleven 'Hot Topics' are on our web site to date.

To shorten the distance between WANO and people in the field, Just-in-Time OE briefings were introduced some years ago. More than 170 JITs present brief examples of problems and mistakes encountered in actual cases, and contain points to consider that should help avoid such pitfalls. These two-page documents are organised into topic areas so that plant personnel can review industry OE as part of work preparation and pre-job briefings of operators, maintenance workers, engineers, planners and for training needs. This is where the tyres meet the road!

Now I'd like you to look at these charts. The first one clearly indicates that our industry has made tangible progress in improving performance. Although the best plants may be near the limit of what can be done, the second chart shows that over the past few years there have been unplanned energy losses due to forced shutdowns or outage extensions as a result of equipment failures.

These years have brought events we should have foreseen, but we didn't. Pipe ruptures due to flow-accelerated corrosion, intake structure blockage, failure of electrical breakers, transformers and generators... We've been through all this before and we are going through it all again.

The analysis of recent events and peer review results pointed to the three key issues that need to be addressed.

The first one is inadequate equipment monitoring and ineffective supervision and oversight of plant personnel and contractors.

The next area is control of modifications. Errors associated with modifications contributed to over 60 recent events. Insufficient knowledge and skills with new technology, over-reliance on vendor expertise and inadequate scope of post-modification testing were the most common weaknesses.

The last bullet on the slide refers to error prevention. Over the past five years, more than 50 percent of events reported to WANO were related to human performance, namely - insufficient use of error-prevention tools.

To sum up, the WANO OE programme is more than just event reporting. Reporting alone solves nothing. More analysis is needed to diagnose performance issues. But regardless of how brilliant the analysis may be, it's the implementation of preventive actions that makes the difference.

And the challenge is to communicate applicable OE information at every level of a plant organisation. Only then lessons learned at one nuclear power plant can be effectively incorporated into operational practices at all other WANO members.

Quite frankly, we are not there yet. But I know we have the capability to do that.

Thank you for your attention.