

Actions of Nuclear Safety Oversight Office

-Nuclear Safety Reform Plan Progress Report (1st Quarter, 2015) -

1. Recent Status of Activities

- The focus at Fukushima Daiichi has been work control. A lot of good work has been done by the site management. The Site Superintendent has instituted a comprehensive program to verify that his expectations are being implemented. However, further improvements are still required.
- Only limited assessment at Fukushima Daini has covered industrial safety. A good spirit and determination was evident. There was still room for improvement in the work practices and behaviors and management is dealing with the observations.
- The focus of assessment at Kashiwazaki-Kariwa has been on emergency preparedness and operator training. Performance is good and all recommendations are being implemented.
- The Corporate Assessments Team has focused on the implementation of the Nuclear Safety Reform Plan as an indicator for nuclear safety culture and safety governance. A marked improvement has been seen in the implementation of the Nuclear Safety Reform Plan, the self-assessment process (management reviews) and the consideration of operating experience although there is still room for improvement.

2. Chief of Nuclear Safety Oversight (CNSO) Perspective

There are still operating problems at Fukushima Daiichi requiring careful management. Verification that all the rules and actions are being implemented is key to success. The reactors are currently stable (subcritical) and cooling is becoming managed. Containment of the radioactivity is the big issue for the current state. Looking forward however these risk states may change as work proceeds. As Fukushima Daiichi comes out of the crisis situation there is a need to take a more strategic view of the nuclear safety requirements in order to meet the risk minimization requirements of the revised Road Map.

At Fukushima Daini all the fuel has been removed from the reactors and the safety of the site in cold shutdown is being adequately managed.

For Kashiwazaki-Kariwa the above assessments and the results from previous

assessments continue to show that safety standards are acceptable.

Although the Nuclear Safety Reform Plan, WANO-CPR and corporate culture and governance are now being led more effectively, there is still a need to verify that the messages are being effectively communicated by middle management and implemented at the working level.

2.1 Improvements

In previous reports to the Board NSOO has identified several broad Areas For Improvement (AFI). NSOO is able to acknowledge significant improvements in many of these areas including;

- Leadership for safety
 - The safety focus and leadership from the Board, executive, Site Superintendents and General Managers has improved. NSOO will now focus on the leadership (for safety) of middle managers.
- Renewed emphasis on safety rather than schedule
 - This major concern of the CNSO has been alleviated by recent leadership behavior, the new TEPCO safety policy statement, and the focus of the revised Road Map.
- Recognition that TEPCO bears a primary responsibility for the safety of its contractors on nuclear sites
 - The recent management behavior and the new clause in the company policy setting out TEPCO's responsibility are encouraging.
- Management self-assessment of safety performance
 - There have been significant improvements in the safety analysis carried out in the management reviews. NSOO will conduct a review of the totality of assessment meetings to determine to what extent they meet best practice and the safety assessment requirements of the WANO PO&Cs.
- Radiation dose management
 - The ALARA process at Fukushima Daiichi is impressive and a credit to the Fukushima Daiichi management. However, further work is required on reducing dose budgets still further, dose management at the work place and education of management and workers regarding ALARA and the risks of working with radiation.
- Key Performance Indicators (KPI)
 - KPIs have been created for safety performance and for implementation of the Nuclear Safety Reform Plan. In some areas the KPIs are still immature and

NSOO will observe and stimulate their development and use in Continuous Assessment.

- Safety Management System
 - CNSO is also encouraged by the initiative to create Corporate Functional Area Managers (CFAM) which will in time lead to improvements in the Safety Management Systems and safety standards across all functional areas.

2.2 10 Actions from the Board

The above improvements are recognized in NSOO's assessment of the status of the 10 actions placed on the executive by the Board in March 2014. Of the 10 actions NSOO considers that;

- 2 actions may soon be considered as closed, with further monitoring and improvement becoming normal management business.
- 7 actions are nearing completion and closing actions have been discussed and agreed with the relevant leaders.
- Only 1 action is still significantly delayed and that relates to the training and certifying of the contractor work team leaders.

2.3 Management Reviews

As stated above, self-assessment of nuclear safety performance is very important and much improved in the recent rounds of Management Reviews. In these reviews the management have highlighted and set actions and programs for improvement in important areas of safety.

NSOO will pay particular attention to areas such as;

- Resource and Competence Management – CNSO believes that the high overtime is hiding significant under-resourcing and that there is a requirement to assess the minimum nuclear safety related manning requirements (a Nuclear Baseline).
- Governance – where and how safety related decisions are taken. Currently, the CDO is revising the roles that various councils play in decision-making.
- Learning – particularly how OE and learning messages sent out from management are implemented and how the management verify to their own satisfaction that such messages are implemented.
- Nuclear Safety Culture and the implementation of the Traits

2.4 CNSO's Areas For Improvement

The CNSO has the role to encourage, educate and thereby improve safety standards. The areas on which he has significant concern and has been encouraging improvement are;

- The understanding amongst TEPCO managers and contractors concerning the deleterious health effects of radiation – there is a pervading belief that as long as we work within the international dose limits (to people) there is no health effect.
- The standard of nuclear risk assessment in TEPCO – Thinking of work or design in a risk framework should be automatic in TEPCO.
 - The licensing PRA assessment at Kashiwazaki-Kariwa is good, although at the site we are not yet able to optimize our performance and maintenance using PRA. A program is being started to encourage risk informed decision making and thinking.
 - CNSO believes there is a shortage of resource and capability in nuclear risk assessment at Fukushima Daiichi and in the Decommissioning Business. The current revision of the Road Map puts emphasis on safety first, risk management and the need to do work in a safe, reliable and cautious manner after meticulous preparation. There needs to be a strategy to develop the analytical and management capability to meet these stringent demands.

3. Nuclear Safety Oversight Office Performance

3.1 NSOO Key Performance Indicators

The most important KPI for NSOO is to what degree recommendations from NSOO have been implemented by company executives. NSOO has made 90 recommendations and 12 more this quarter, out of which 34 have been completed, 42 have been agreed upon and are being implemented, and 2 have yet to be implemented.

	Status as of the end of FY2014 Q4		Status as of the end of FY2015 Q1		
	Prior to Q3	Q4 new recommend ations	Prior to Q3	Q4 recommend ations	Q1 new recommend ations
Recommendati ons that have been completed	23	-	34	-	-
Recommendati ons that are being implemented	48	1	41	1	12
Recommendati ons for which no action has been taken	6		2	-	
Total	78		90		

3.2 Benchmarking

NSOO will continue to leverage overseas mentors in order to receive assessment team support. And, we will continue benchmarking with the monitoring functions of other operators.

- In March we attended a WANO oversight conference in Paris.
- In April we visited INPO in the US
- In April we visited the Hatch NPS in the US
- In July we visited Palo Verde in the US

Much has been learned from all of these activities.

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