

# International Conference on Human and Organizational Aspects of Assuring Nuclear Safety –Exploring 30 Years of Safety Culture



Contribution ID: 27

Type: **Keynote Presentation**

## Leadership Actions to Improve Nuclear Safety Culture

*Friday, 26 February 2016 09:50 (40 minutes)*

### Synopsis

The challenge many leaders face is how to effectively implement and then utilize the results of Safety Culture surveys. Bruce Power has recently successfully implemented changes to the Safety Culture survey process including how corrective actions were identified and implemented. The actions taken in response to the latest survey have proven effective with step change performance noted.

Nuclear Safety is a core value for Bruce Power. Nuclear Safety at Bruce Power is based on the following four pillars: reactor safety, industrial safety, radiological safety and environmental safety.

Processes and practices are in place to achieve a healthy Nuclear Safety Culture within Bruce Power such that nuclear safety is the overriding priority. This governance is based on industry leading practices which monitors, assesses and takes actions to drive continual improvements in the Nuclear Safety Culture within Bruce Power.

An important aspect of determining the status of the Nuclear Safety Culture within Bruce Power is effective leadership oversight which sets standards and behaviour expectations for all staff and uses a variety of day to day controls to monitor the operations of the facilities as well as to reinforce the behaviours associated with the expectations of a healthy Nuclear Safety Culture. Evaluation processes identify Nuclear Safety Culture weaknesses and monitor the effectiveness of actions taken. A variety of communications and leadership awareness activities have been implemented to enhance leaders' and employees' knowledge of the framework. An integral part of Bruce Power's nuclear safety oversight is a Nuclear Safety Culture assessment which is conducted periodically. Numerous changes were implemented prior to the last safety culture assessment to improve the number and quality of respondents. The assessment has been conducted in the past at the facility level, however Bruce Power decided in 2013 that greater information on the character of the Nuclear Safety Culture would be beneficial and decided to conduct an assessment across the entire organization as part of the corporate assessment. The assessment team consisted of experienced individuals led by a senior manager and supported by an external consultant with expertise in assessing Nuclear Safety Cultures at nuclear facilities. The assessment techniques and process included:

- Nuclear Safety Culture Staff Survey
- Individual interviews conducted with Bruce Power staff throughout the different levels of the organization.
- Focus group interviews conducted with staff from selected departments within Bruce Power.
- Insights from the Nuclear Safety Culture Monitoring process.

The report generated from the analysis of the data provided the character of the Nuclear Safety Culture and trends at the facilities and across the organization. A thorough review of the results were conducted with a cross departmental team that included individual contributors, supervisors and managers. An executive committee chaired by the Chief Nuclear Officer provided oversight for the entire process. Bruce Power established a number of corrective actions to address the three main focus areas identified as part of the Safety Culture Survey assessment:

- Improve Equipment Health
- Improve the Corrective Action Program

- Improve first line manager communications

A key success factor was the establishment of sponsorship and site wide initiatives to respond to each of the three focus areas. Another success factor was the decision to focus on the top three issues. Oversight on the progress against these actions was also undertaken at the Corporate Corrective Action Review Board (CARB) each quarter, whose purpose is to provide Senior Management Review and oversight of significant corporate level events; ensuring that the causes of these events have been identified and that timely and effective corrective actions have been put in place. The Corporate CARB ensured the proper focus is maintained on Public, Plant and Personnel Safety as well as Generation, Business Plan and Safety Culture.”

This integrated framework, which was developed using the experience of external expertise and international industry standards provides a valid characterization of the Nuclear Safety Culture and drives continual improvement such that Bruce Power maintains a healthy Nuclear Safety Culture. The value of these new methodologies has been validated through various measures, metrics and surveys.

## **Country or International Agency**

Canada

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**Session Classification:** CP: The Future Is In Our Hands