

From GOOD to GREAT

COG workshop emphasizes a common approach for nuclear safety culture amongst operators and suppliers

Ontario Power Generation's Darlington Refurbishment has entered execution phase and Bruce Power is further into preparation mode for its own Major Components Replacement project, including the recent opening of its Centre for Project Excellence.

But if there is one priority overriding schedules, costs and facilities in the minds of the utilities' leaders, it is safety culture excellence. At a time when collaboration between utilities and suppliers is more critical to project and operation success than ever before, they are hoping to inculcate a safety culture mentality in both their own organizations and industry-wide.

"We see it time and again: companies that place emphasis on safety and quality are also the most cost effective," says CANDU Owners Group (COG) president Fred Dermar. "More than ever we need the highest standard of both safety and quality in our work. There is just so much riding on it, both for the people who rely on clean electricity produced safely and for the sustainability of the industry."

To help achieve a standard of excellence in safety culture industry-wide, COG is facilitating efforts with the supplier community to help the industry develop the systems, mindset and behaviours for alignment and achievement.

One of these initiatives, the **COG Refurbishment Forum, Nuclear Safety Culture Workshop** was held at the Darlington Energy Complex in July. Participants included representatives from COG, OPG, Bruce Power, CNL, the Organization of Canadian Nuclear Industries (OCI) and participants from the

supplier community including large companies such as BWXT, Hatch and Kinectrics and smaller members of the supply chain such as Promation Nuclear and Topax Protective Packaging.

"It is not enough to know what safety culture is or even to understand how it works," says Dermar. "There is a depth of leadership and internalization required across every organization, from every leader and ultimately with every worker who is part of refurbishment, operation or supply chain. Our success with the refurbishment projects and into continued operation depends upon that industry-wide commitment," says Dermar.

Among speakers at the conference were Bruce Power Chief Nuclear Officer Len Clewett, and OPG Deputy Chief Nuclear Officer Sean Granville who each shared their own insights. Senior managers from both operators as well as Westinghouse Electric shared operating experience and Dr. Mark Fleming the CN Professor of Safety Culture also provided insights from the experiences of other industries including shipping and oil and gas.

"Safety culture is not a concept unique to the nuclear industry though as operators, we have embraced and developed it for a long time," says COG Project Manager Ian Trotman, who facilitates the collaboration between the operators and suppliers.

"There is no such thing as done when it comes to safety culture. With these workshops and other activities, we are continuing to cultivate the expectation and expertise to achieve



Speakers at the COG Refurbishment Safety Culture workshop provided a diversity of perspectives and advice for building safety culture within organizations.

FRONT ROW: L-R: Bill Owens, Aileen Sullivan, Tim Teather and Len Clewett

BACK ROW L-R: Kathryn Harrison, Ed Wills, Mark Fleming and Ian Trotman

excellence and we are taking the knowledge deeper into the nuclear community.”

Trotman adds, “The supplier community also has a valuable perspective of its own to share. The point of these workshops is to foster an understanding of expectations, share experience and learn from each other.” 

Nuclear Safety Culture Defined

The core values and behaviours resulting from a collective commitment by leaders and individuals to emphasize safety over competing goals to ensure protection of people and the environment.

INPO, Traits of a healthy safety culture

Seen and heard at the COG Refurbishment Safety Culture Workshop

Sean Granville

Deputy Chief Nuclear Officer, OPG

Advice for all workers:

Recognize:

- You work in a nuclear power plant: your work and the technology is special and unique;
- You must follow procedures and plans to do your job safely;
- You need to stand by the quality of your work;
- We want you to bring your concerns forward and ask your supervisor for help;
- Take care of yourself and your co-workers;
- Use your event-free tools to help you through difficult situations.

Len Clewett,

EVP and CNO, Bruce Power

Expectations for suppliers:

- Commitment to safety;
- Excellent quality management;
- Robust human performance program and ownership;
- Healthy safety culture;
- Learning organization.

Aileen Sullivan

Director Fleet Performance Improvement, OPG:

Everyone can impact nuclear safety.

Experience has shown that leaders in organizations foster a healthy safety culture by:

- Reinforcing it;
- Measuring it frequently;
- Communicating what it looks like and helping people understand their own role in contributing to it;
- Recognizing safety culture is not all or nothing: it moves along a continuum that allows room for discussion, questions and reporting of errors and mistakes to allow learning.

Ed Wills

Director Global Nuclear Safety,
Westinghouse Electric

**Nuclear Safety Culture Message –
Is it simple and is it relatable?**

What we will change:

- Demand integrity in the workplace
- Lead with safety
- Treat all workers with respect

How we will change:

- Leadership alignment
- Common approach
- Relentless implementation

Tim Teather

Performance Improvement Manager, Bruce Power

Four managed defences for nuclear safety:

- **Cultural:** Values and beliefs;
- **Engineered:** Physical barriers;
- **Administrative:** Procedures, training, processes and policies that keep activities safe and predictable;
- **Oversight:** Assessing team performance and consistently addressing problems and vulnerabilities.

Mark Fleming

CN Professor of Safety Culture,
St. Mary's University

Safety requires communication.

- A safety management system is not effective unless it is accompanied by a good safety culture;
- Stay alert to potential risk factors that could increase the risk of major disaster;
- You need to win hearts and minds to improve safety;
- A proactive approach involves self assessment and feedback on the less visible elements of the safety management system.