

January 11, 2013



**MR. M. DALLAIRE**

Director General Regulatory Policy Directorate  
Canadian Nuclear Safety Commission  
280 Slater Street Ottawa, Ontario K1P 5S9

Dear Mr. Dallaire:

**Feedback on comments received about DIS-12-07, *Safety Culture for Nuclear Licensees***

As the submissions from many of the industry stakeholders appear to be substantively similar in content, the Society will make a few general observations derived from trends noted in the whole body of submitted comments, rather than identifying and singling out the comments of any one stakeholder.

While all of the stakeholders who submitted comments wholeheartedly agreed with the CNSC's affirmation of the importance of a healthy Nuclear Safety Culture, many seemed to take exception to the regulator's suggested schedule for self-assessments at two to three year intervals. These stakeholders preferred that formal self-assessments be repeated at intervals from every 3-5 years, or even longer if additional mechanisms for self-assessment are in place. The main rationale for the need for this lengthy interval between assessments seems to be the notion that culture changes slowly.

The Society believes the timeframe for repeated assessments suggested by the CNSC is acceptable. The Society acknowledges that culture does indeed change slowly, and for this very reason it is important to ensure that incremental changes are consistent and in the right direction. Given a ship that all parties agree is slow to turn, we do not see the wisdom in waiting as many as five years to find that the ship has not been sailing in the right direction. Of course, it would not be reasonable to expect large changes or uniform progress given shorter measurement intervals, but even small uneven changes can give us some confidence that we are on the right track, as long as we see that they are directionally appropriate to our long term goals. Conversely, a lack of any change over multiple shorter measurement intervals or any sign of directionally inappropriate change should be an early red flag for further attention and corrective action in the short term.

The Society is of the opinion that the definition in Section 4 of the CNSC discussion paper allows for more useful operationalization of safety culture as it applies to every level of an organization. The INPO definition preferred by industry stakeholders works well at a higher level of abstraction, but is more difficult to operationalize and measure on the ground. The greatest strength of the INPO definition is its simple, powerful and explicit statement of the need to: “...*emphasize safety over competing goals to ensure protection of people and the environment.*” The Society believes that this overriding primacy of safety must be incorporated into the CNSC’s suggested definition from Section 4 of the discussion paper.

A common theme detected in stakeholder comments about the discussion paper was the aversion to prescribed approaches and methodological standardization. The general claim would appear to be that Nuclear Safety Culture is so unique to a work environment and there can be no universal way for a regulatory body to oversee it. Given that the CNSC is seeking to implement requirements across all manner of licensees, it is true that what might be quite appropriate and relevant for a nuclear generating station might be entirely inappropriate for a uranium mine.

However, while it is certainly advisable to avoid an overly prescriptive, tightly standardized “one size fits all” approach across such a broad range of industry, the Society is of the opinion that, at least in the instance of nuclear generating stations, management structures, operations, work environments and existing approaches to nuclear safety culture are similar enough that relatively standardized methodologies would not be inappropriate or overly inhibiting. The uncanny similarity in the positions independently expressed by different generating industry stakeholders would suggest that they are not so unique as to defy a standardized approach.

Regarding the lack of integration between the proposed CNSC framework and the INPO framework used by WANO, the Society is not convinced that this need hamper efforts to improve safety culture. Some of the comments seem to suggest that adoption of certain frameworks or assessment methodologies preclude or “stifle” the development and adoption of others. Rather, for the most part, the “frameworks” describe what some aspects of a healthy safety culture looks like, not how to get there. As such, licensees who feel that the assessment methodologies prescribed by the CNSC are inadequate to their needs are still free to innovate toward additional improvements and complimentary approaches.

The Society agrees with industry stakeholders that the CNSC approach to assessment team composition is overly narrow, and as such is likely to deprive the team of a broader range of engineering and operational expertise in exchange for a greater depth of behavioural and human factors expertise. While it is entirely reasonable that the team leader should be a specialist, it is not necessary that all team members have an equivalent background. Team members who do not possess a background in human factors could be provided with some fundamental training before engaging in assessment activities.

Multiple industry stakeholders suggest that the composition of the assessment team should be sufficiently flexible as to allow for, “...*the essential voice and participation of site/facility managers, workers [emphasis added], and others.*”. The Society fundamentally agrees with this position, but is of the opinion that the participation of “workers” on the team should be mandatory and formalized through the inclusion of an appropriately qualified union appointee to the committee. Conceptually, this would be no different than the internal responsibility system for conventional occupational health and safety, which in the context of a unionized workplace requires by legislation an independent voice for worker concerns as expressed through duly elected/appointed union representatives.

Finally the Society is in agreement with comments that safety culture is an inherently qualitative phenomenon and as such it is difficult to empirically measure in a direct way. However, the Society does not agree with a position that, because of these difficulties in direct measurement, we must default to the acceptance of management “insights” about safety culture as an acceptable and sufficient product of nuclear safety culture self-assessment.

The ultimate reason that we are striving to improve nuclear safety culture is not to generate improved insights for their own sake, but rather to use those insights to generate improved safety related behaviour, and as a result improved nuclear safety. While safety culture itself cannot be easily quantified and used as a baseline against which to measure improvements, a variety of behaviours, which are the concrete expression of those cultural attitudes, can and should be operationalized, measured and tracked over time.

The Society would be pleased to participate in further consultations on this issue, should the CNSC determine that this would be helpful. If you require further information or have questions regarding this submission, please contact Mike Belmore, External Relations Officer [belmorem@thesociety.ca](mailto:belmorem@thesociety.ca)

## About the Society of Energy Professionals

The Society of Energy Professionals (the Society) represents more than 8,300 employees working for 13 employers in the electricity industry in Ontario, including Ontario Power Generation, Hydro One, Bruce Power, Nuclear Waste Management Organization, AMEC-Nuclear Safety Solutions, the Independent Electricity System Operator, and the Ontario Energy Board, among others. Approximately 3,500 Society members are employed in nuclear generation at the nuclear division of Ontario Power Generation (OPG) and at Bruce Power.

Our members are employed as first-line managers and supervisors, professional engineers, scientists, information systems professionals, economists, auditors and accountants, as well as many other professional, administrative, and associated occupations. Society members provide technical expertise in areas of conventional health and safety, radiation safety, emergency preparedness and environment. Society represented safety sensitive occupations include ergonomists, safety specialists, industrial hygienists, safety officers, health physicists, emergency managers, environmental scientists and environmental engineers.