**Canadian Nuclear Society**
**Société Nucléaire Canadienne**
**Ottawa Branch**

# Nuclear Hydrogen Production: Safety Issues in a Nuclear/Thermochemical Context

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by
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Significant efforts are now underway in Canada and internationally, to develop technologies for utilization of nuclear heat and electricity in hydrogen production (NHP) - via thermochemical processes, and via electrolysis of water and steam (HTE). Colocation of such processes with a nuclear power plant is unprecedented, and therefore requires a proactive analysis of safety issues. This is especially the case given the intrinsic nature of hydrogen and the corrosive nature of chemicals proposed as intermediaries in hydrogen production. This presentation will discuss the safety events of interest in the context of co-located hydrogen production, their expected frequency, and possible measures for risk mitigation. While thermalhydraulic considerations motivate *proximate* siting of the thermochemical plant with the nuclear plant, quantitative risk analysis provides estimates of a 'minimum distance'. This and related safety issues suggested by the analysis will be discussed in the presentation.

Date: **Thursday, January 24**
Time: 12:00 noon. ***NOTE: A light lunch will be provided, free.***
Location Air Force Mess (Astra Lounge, Main Floor)
158 Gloucester St. (between Bank and O'Connor)

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**- ALL WELCOME -**