**PROJECT OBJECTIVES:**
- To evaluate the suitability of fracture toughness parameters developed for macro-specimens for characterizing micro-specimens.

**Motivation:**
- Results from macro-specimens will be used to assess the influence of specimen geometry (including notch acuity).
- Correlation between macro- and micro-specimen needs to be determined to assess influence of specimen size.
- Assessing the usefulness of micro-specimens is the goal since they are ideal for providing localised measurements of fracture toughness.

**EXPECTED OUTCOMES:**
- An assessment of elastic-plastic fracture parameters for characterizing the fracture toughness of micro-sized specimens.

**FEDERAL STAKEHOLDERS:** CNSC

**WORK COMPLETED:**
- Finite element modeling to evaluate the effect of specimen geometry/size on plastic zone size and fracture parameters

**CONTINUING WORK:**
- Conduct fracture toughness tests on macro-scale specimen
- Develop, machine and test micro-scale specimens