



Deformation Technology Calandria Tube Burst Test and Creep Rupture Testing Laboratory

CNL's Deformation Technology Calandria Tube Burst Test (DTCTBT) and Creep Rupture Testing (CRT) Laboratory is located at the Chalk River Laboratories. The DTCTBT and CRT Laboratory performs burst and creep rupture tests on inactive CANDU® reactor calandria tube materials.

The DTCTBT and CRT Laboratory utilizes water up to 208°C and up to 25 MPa within its testing parameters. This Laboratory can monitor pressure, temperature, and axial loads, with strain-gauge bolts as well as circumferential swelling during testing. The Laboratory has recently developed a novel welded sealing system that enables the testing of seamless and seam welded calandria tube materials of various dimensions.

CNL has other experimental capabilities which work in concert with the DTCTBT and CRT Laboratory. One such capability is the micro-structural characterization of calandria tubing that can be utilized as part of any testing done by the DTCTBT and CRT Laboratory.

The Deformation Technology Calandria Tube Burst Test and Creep Rupture Testing Laboratory would welcome partnerships with manufacturers of calandria tubing to test their components in order to meet design targets for CANDU reactors. In partnership with industry, these test facilities are ideal to assess safety requirements for calandria tubes.

