



Digital Radiography and Computer Tomography Facility

CNL's Digital Radiography and Computer Tomography Facility (DRCTF) is located at its Chalk River Laboratories (CRL). The DRCTF is used for non destructive examinations (NDE) of radioactive and non-radioactive materials and components.

The DRCTF is capable of performing digital radiography and NDE of different materials and components. It also designs computer modeling of radiography experiments, and creates advanced digital image processing of radiography images. The DRCTF has several exposure devices with different isotope sources, such as Iridium (Ir-192), Cobalt (Co-60), Caesium (Cs-137) and Selenium (Se-75). Two x-ray tube sources, one stationary and one portable, are available for use within the DRCTF, as are two digital radiography detection systems, a flat panel detector FS-33, and computed radiography system DR-1400.

Staff in the DRCTF have RT Level 2 Canadian General Standards Board certification. The DRCTF is also responsible for computer modeling of the radiography experiments and for application of advanced digital image processing techniques. CNL has a number of facilities, which complement the work performed in the DRCTF. Once such complementary facility is the Neutron Scattering and Neutron Reflectometry Facility also located at CRL.

There are currently two ongoing collaborations involving this facility: a partnership with Japan's National Institute for Material Science on "Industrial Radiography and X-Ray physics", and a partnership with ALFT (Advanced Laser and Fusion Technology), in Ottawa, on the development of advanced applications for soft x-ray sources.

The Digital Radiography and Computer Tomography facility would welcome new partnerships in industry or with universities.

