



## Applications

- > Prototyping, design and evaluation of changes to:
  - > MCR layout
  - > Stand-to-operate panels
  - > HMIs
  - > Control logic
  - > Digital instrumentation and control (I&C) platforms
  - > Annunciation
  - > Surveillance testing
  - > Operating procedures
- > Training material
  - > Human factors usability testing

## Benefits

- > Low-risk path confirms faithful reproduction of desired behaviour prior to implementation in the plant
- > Demonstrates design correctness for proposed new features
- > Allows evaluation/testing in an isolated or integrated setting



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**SNC • LAVALIN**

# Main Control Room Mock-up

Nuclear

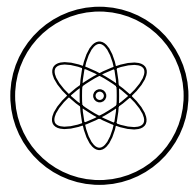




## SNC-Lavalin—Reliable, Proven

Being able to provide safe and reliable solutions through superior technology is vital in the nuclear industry. With more than a century of experience in the power sector, and over 60 years invested in the nuclear industry, SNC-Lavalin develops nuclear projects, products and services tailored to our clients' needs. Safety, quality, innovation and excellence in project execution are the values we live by every day.

Our Nuclear team strives to “think like an operator,” offering cost-effective and reliable solutions to nuclear spare parts and obsolescence issues.



Nuclear

## A Unique Facility

Backed by more than 60 years of CANDU® technology expertise, SNC-Lavalin understands the difficulty in booking time in busy utility training facilities. Our full-scale main control room (MCR) mock-up is one of only three engineering simulators in North America. It's a solution to utility simulator availability. Reliable, economical and available when you need it—our MCR mock-up delivers additional support to meet your Engineering, Training, Procedure and Operations group needs.

## State-of-the-art, Full-scope Training Simulator

Full-scope training simulators for a given plant are in continuous use by utilities' training programs. Getting time in a full-scope training simulator to evaluate changes to control programs, human-system interfaces and operating procedures can be difficult. High demand for training and limited access to these facilities for other activities can sometimes prove to be inconvenient and difficult.

Our state-of-the-art, full-scale, fully functional virtual control room is located in Mississauga, Ontario, and is readily available during normal business hours for your engineering, training and procedure validation purposes. With the only full-scale CANDU MCR mock-up outside of a utility in Canada, we provide the solution to your utility's busy simulator schedules. Engineering, Training, Procedures and Operations groups can all benefit from time in our MCR mock-up. Its virtual control room supports the reconfiguration of stand-to-operate panel human system.

## MCR Mock-up Features

- > Full scale:
  - > 19 stand-to-operate panel bays, each consisting of four large touch enabled video display units (VDU) driven by a PC
  - > Two 100" video display units
  - > Two 42" video display units
  - > Four consoles of various sizes
  - > More than 10 24" touch-screen enabled PC-based workstations
  - > One colour laser-jet printer
  - > Separate instructor area with PCs for the simulator, the instructor station, and a human machine interface (HMI) station
  - > Whiteboards
- > Flexible:
  - > Mobile panel bays mean layout can be modified to suit different sites
  - > Unlike hardwired controls, our soft control panels are easily configurable and provide low cost prototyping
- > Compatible:
  - > Our MCR is compatible with any client-supplied Windows-based simulator software to meet specific client needs