Overview of Containment

Lawrence Dickson, Program Manager
Fission Product and Containment Behavior
Fuel & Fuel Channel Safety Branch
Presentation to U.S. Nuclear Regulatory Commission Staff









R&D Program on Containment Behavior

- AECL has a comprehensive R&D program to acquire understanding of key phenomena and to develop tools for accident analysis since early 1970s. Areas of research include:
 - Hydrogen Distribution
 - Hydrogen Combustion
 - Hydrogen Mitigation
 - Containment Thermal Hydraulic Response



Goals of R&D Program

- Acquire fundamental understanding of key containment thermal hydraulic and hydrogen combustion phenomena relevant to postulated CANDU reactor accident scenarios
- Develop computer models for predicting containment thermal hydraulics, gas distribution and combustion pressure



Containment Research Facilities

- Large Scale Vented Combustion Test Facility
- Containment Test Facility
- Diffusion Flame Facility
- Large Scale Containment Facility
- Recombiner Development Laboratory



