

DEPARTMENT OF NUCLEAR TECHNOLOGY, FACULTY OF ENGINEERING CHULALONGKORN UNIVERSITY

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THAI - CANADIAN NUCLEAR HUMAN RESOURCES DEVELOPMENT LINKAGE PROJECT

TRAINING PROGRAM

NUCLEAR REACTOR CONTAINMENT DESIGN

SPONSORED BY:

ATOMIC ENERGY OF CANADA LIMITED

CANADIAN INTERNATIONAL DEVELOPMENT AGENCY

ELECTRICITY GENERATING AUTHORITY OF THAILAND

OFFICE OF ATOMIC ENERGY FOR PEACE

NUCLEAR REACTOR CONTAINMENT DESIGN

Lecture notes and text prepared by

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COURSE OBJECTIVES

At the successful completion of this course the participants will be able to describe:

- Objectives of containment
- Requirements for containment design
- Methods by which containment designs achieve these objectives
- Components of a containment system
- Influence of hydrogen, radionuclides and core meltdown on containment design
- Approximate magnitudes of containment parameters
- Trends in containment design
- Specific containment designs
- A detailed realization of one specific containment design, the CANDU
- Thermodynamics of steam-air mixtures
- Mathematical techniques, simple and advanced, for modelling containment features

Course material consists of overheads, text for the mathematical modelling section of the course, problem assignments, and selected reprints.

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