Abbreviations

ACNS Advisory Committee on Nuclear Safety (Canada, historical)

ACR Advanced CANDU Reactor

ACRS Advisory Committee on Reactor Safeguards (USA)

AEC Atomic Energy Commission (USA)
AECA Atomic Energy Control Act (Canada)
AECB Atomic Energy Control Board (Canada)
AECL Atomic Energy of Canada Limited

AESOP Atomic Energy Simulation of Optimization (computer code)

ALARA As Low as Reasonably Achievable
ALARP As Low as Reasonably Practical (UK)
AOO Anticipated Operational Occurrence
ASDV Atmospheric Steam Discharge Valve
ASLB Atomic Safety and Licensing Board (USA)

ASSERT Advanced Solution of Subchannel Equations in Reactor Thermalhydraulics (computer

code)

ASTM American Society for and Testing Materials

BDBA Beyond Design Basis Accident
BDBA Beyond Design Basis Accident

BEAU Best Estimate with Analysis of Uncertainties

BECS Boiler Emergency Cooling System

BLC Boiler Level Control
BLW Boiling Light Water

BPC Boiler Pressure Controller
BSL Basic Safety Limit (UK)
BSO Basic Safety Objective (UK)
BWR Boiling Water Reactor

C/S Containment and Surveillance

CANDU CANada Deuterium Uranium – the generic name for Canadian heavy water power

reactors

CATHENA Canadian algorithm for thermal hydraulic network analysis (computer code)

CCP Critical Channel Power

CEAA Canadian Environmental Assessment Act

CFR Code of Federal Regulations (USA)

CHF Critical Heat Flux

CNSC Canadian Nuclear Safety Commission

CPR Critical Power Ratio
CRL Chalk River Laboratories

CRT Cathode Ray Tube

CSA Canadian Standards Association
CSDV Condenser Steam Discharge Valve

CSNI Canadian Standards for the Nuclear Industry; also Committee on the Safety of Nuclear

Installations

DBA Design Basis Accident

DBE Design Base Earthquake

DCC Digital Control Computer

2 The Essential CANDU

DF-ET Drift Flux-Equal Temperature
DF-UT Drift Flux-Unequal Temperature
DIV Design Information Verification
DNB Departure from Nucleate Boiling
DSA Deterministic Safety Analysis
EA Environment Agency (UK)
ECC Emergency Core Cooling

ECI Emergency Coolant Injection (a subsystem of ECC)

EFPH Effective Full Power Hours

EIS Environmental Impact Statement

ENSREG European Nuclear Safety Regulators Group

EPR European Pressurized Reactor

EU European Union

EVET Equal Velocity Equal Temperature
EVUT Equal Velocity-Unequal Temperature

EWS Emergency Water Supply

FBR Feed, Bleed and Relief; also Fast Breeder Reactor

FMEA Failure Modes and Effects Analysis

FP Full Power

GAI Generic Action Item
GAR Global Assessment Report

GCR Gar Cooled Reactor

GDA Generic Design Assessment (UK)
GDC General Design Criteria (US)
HEM Homogeneous Equilibrium Model

HPECC High-Pressure ECC

HSE Health and Safety Executive (UK)
HTS Heat-Transport System (see also RCS)

HWP Heavy Water Plant

HYDNA Hydraulic Network Analysis (extinct computer code)

I&C Instrumentation and Control

IAEA International Atomic Energy Agency
IBIF Intermittent Buoyancy Induced Flow

ICRP International Commission on Radiological Protection

IIP Integrated Implementation PlanINES International Nuclear Event ScaleINPO Institute of Nuclear Power Operations

INSAG International Nuclear Safety Advisory Group (IAEA)

IRRS Integrated Regulatory Review Service (IAEA)

LBLOCA Large Break Loss of Coolant Accident

LGR Liquid Graphite Reactor

LLOCA Large Loss-of-Coolant Accident
LMFBR Liquid Metal Fast Breeder Reactor

LNT Linear No Threshold (dose response hypothesis)

LOC Loss of Coolant

LOC/LOECC Loss of Coolant with Coincident Loss of Emergency Core Cooling

LOCA Loss of Coolant Accident

Abbreviations 3

LOP Loss of Pumping
LOR Loss of Regulation
LPECC Low-Pressure ECC
LWR Light-Water Reactor
MBA Material Balance Area

MCCR Ministry of Consumer and Commercial Relations

MCR Main Control Room

MCS Maintenance Cooling System

MDEP Multinational Design Evaluation Programme

milli-k Unit of reactivity for reactor physics

MPECC Medium-Pressure ECC

MPMO Major Projects Management Office

MSSV Main Steam Safety Valve
MUF Material Unaccounted For

MWe Megawatt electric

NDPB Non Departmental Public Body (UK)

NISA Nuclear and Industrial Safety Agency (Japan)

NPD Nuclear Power Demonstration

NPP Nuclear Power Plant

NPSH Net Positive Suction Head

NRA Nuclear Regulation Authority (Japan)

NRU National Research Universal

NRU National Research Universal (reactor)

NRX National Research Experimental Research Reactor

NUCIRC Nuclear Circuits (computer code)

OECD Organization for Economic Co-operation & Development

OH Ontario Hydro (now OPG)

ONR Office for Nuclear Regulation (UK)

OPG Ontario Power Generation

PNGSA Pickering Nuclear Generating Station A

PHTS Primary Heat Transport System

PHW Pressurized Heavy Water

PHWR Pressurized Heavy Water Reactor (CANDU)
PRESCON2 Pressure Containment (computer code)

PRV Pressure-Relief Valve

PSA Probabilistic Safety Analysis
PSR Periodic Safety Review
PWR Pressurized-Water Reactor

QA Quality Assurance

R&D Research and Development
R&M Reliability and Maintainability
RAMA Reactor Analysis Implicit Algorithm

RB Reactor Building

RBMK Реактор Большой Мощности Канальный (High Power Channel-Type Reactor)

RCS Reactor Coolant System (see also HTS)

rem röentgen equivalent man (radiation dose)

RIDM Risk-Informed Decision Making

RIH Reactor Inlet Header ROH Reactor Outlet Header

ROP Regional Overpower (Protection System)

RSAC Reactor Safety Advisory Committee (Canada, historical)

RTD Resistance Temperature Detectors

S/C Suppression Chamber

SAM Severe Accident Management
SAPs Safety Assessment Principles (UK)

SCA Secondary Control Area

SCDF Severe Core-damage Frequency

SDM Safety Design Matrix SDS Shutdown System

SER State Evaluation Report

SFAIRP So Far As Is Reasonably Practicable (UK)

SG Steam Generator

SGHWR Steam Generating Heavy Water Reactor (United Kingdom)

SIR Safeguards Implementation Report

SIS Systems Important to Safety
SOE Safe Operating Envelope

SOPHT Simulation of Primary Heat Transport (computer code)

SOR Shut-Off Rod

SRP Staff Review Procedure (Canada)
SRP Standard Review Plan (US)

SRV Safety Relief Valve

SSC Systems, Structures and Components

STUK Säteilyturvakeskus (Radiation and Nuclear Safety Authority, Finland)

Sv Sievert, a unit of radiation dose TAG Technical Assessment Guide (UK)

TUEC Total Unit Energy Cost
TMI Three Mile Island

TOFFEA Two Fluid Flow Equation Analysis (computer code)

TOR Tolerability of Risk (UK)

TSO Technical Support Organization

USNRC United States Nuclear Regulatory Commission

UVUEUP Unequal Velocity, Unequal Energy, Unequal Pressure (thermalhydraulic model)

UVUT Unequal Velocity Unequal Temperature (thermalhydraulic model)

VB Vacuum Building VC Vacuum Chamber

WENRA Western European Nuclear Regulators' Association

WRE Whiteshell Research Establishment ZEEP Zero Energy Experimental Pile