

Acronyms and Abbreviations – A Partial List

Nuclear Power Plant Probabilistic Risk Assessment (PRA) and Risk-Informed Decision Making
(RIDM)

Massachusetts Institute of Technology

Independent Activities Period

January 16-23, 2019

ABS	antilock braking system
AC	alternating current
ACRS	Advisory Committee on Reactor Safeguards (NRC)
ADAMS	NRC Agencywide Documents and Management System
ADAPT	software tool for dynamic PRA (not defined as an acronym)
ADS/IDAC	Accident Dynamic Simulator/Information Decision Action Crew
AEC	U.S. Atomic Energy Commission
AFW	auxiliary feedwater
AI	artificial intelligence
ANS	American Nuclear Society
AOT	allowed outage time
AOV	air-operated valve
ASLB	Atomic Safety and Licensing Board (NRC)
ASME	American Society of Mechanical Engineers
ASP	accident sequence precursor
ATHEANA	A Technique for Human Event Analysis
ATWS	anticipated transient without scram
BAC	blood alcohol content
BEPU	best-estimate plus uncertainty
BFR	Binomial Failure Rate CCF model
BNL	Brookhaven National Laboratory
BWR	boiling water reactor
CAFTA	Computer Aided Fault Tree Analysis System
CBDT	Cause-Based Decision Tree
CCDF	complementary cumulative distribution function
CCDP	conditional core damage probability
CCF	common cause failure
CCFP	conditional containment failure probability
CCW	component cooling water
CDF	core damage frequency
	cumulative distribution function
CFAST	Consolidated Model of Fire and Smoke Transport
CFR	Code of Federal Regulations
CSN	Consejo de Seguridad Nuclear (Spain)
CSNI	Committee for the Safety of Nuclear Installations (OECD/NEA committee)
CSR	cable spreading room
DC	direct current
DDET	discrete dynamic event tree
DHS	U.S. Department of Homeland Security
DOE	U.S. Department of Energy
DPD	discrete probability distribution

DRM	deterministic reference model
ECCS	emergency core cooling system
EDF	Electricité de France (French utility)
EDG	emergency diesel generator
EFW	emergency feedwater
ENSI	Eidgenössisches Nuklearsicherheitsinspektorat (Swiss Federal Nuclear Safety Inspectorate)
EP&R	emergency preparedness and response
EPA	U.S. Environmental Protection Agency
EPRI	Electric Power Research Institute
EPS	Emergency Power System
EPZ	Emergency Planning Zone
ERM	enterprise risk management
ESD	event sequence diagram
ESF	engineered safety features
ESW	emergency service water
EU	European Union
F-V	Fussell-Vesely importance measure
FDS	Fire Dynamics Simulator
FLEX	diverse and flexible mitigation strategies
FMEA	Failure Modes and Effects Analysis
FMECA	Failure Modes and Effects and Criticality Analysis
FW	feedwater
GI	Generic Issue (NRC program)
GRS	Gesellschaft für Anlagen- und Reaktorsicherheit (German TSO)
HAMMLAB	HAlden huMan-Machine LABoratory (OECD/NEA/HRP)
HAZOPS	Hazard and Operability Study
HCR/ORE	Human Cognitive Reliability/Operator Reliability Experiment
HEAF	high energy arc fault
HEP	human error probability
HFE	human failure event
HPCI	high pressure coolant injection
HPI	high pressure injection
HQ	headquarters
HRA	human reliability analysis
HRP	Halden Reactor Project (OECD/NEA project)
HTGR	high-temperature gas reactor
HVAC	heating, ventilation and air conditioning
HX	heat exchanger
IAEA	International Atomic Energy Agency
IAI	Integrated ASP Index
ICDE	International Common Cause Data Exchange (OECD/NEA project)
IDHEAS	Integrated Human Event Analysis System
IDPSA	Integrated Deterministic-Probabilistic PSA
IEEE	Institute of Electrical and Electronics Engineers
INL	Idaho National Laboratory
IPE	Individual Plant Examination
IPEEE	Individual Plant Examination of External Events
IPPSS	Indian Point Probabilistic Safety Study
IPSN	Institut de Protection et de Sûreté Nucléaire (French TSO)
IREP	Interim Reliability Evaluation Program

ISA	integrated safety assessment
ISLOCA	interfacing systems LOCA
LAR	License Amendment Request
LER	Licensee Event Report
LERF	large early release frequency
LLOCA	large loss of coolant accident
LNT	linear no-threshold theory of radiation effects
LOCA	loss of coolant accident
LOFW	loss of feedwater
LOIA	loss of instrument air
LOOP	loss of offsite power (also LOSP)
LOPA	Layers of Protection Analysis
LOUHS	loss of ultimate heat sink
LPI	low pressure injection
LPSD	low power and shutdown
LRF	large release frequency
LWRS	Light Water Reactor Sustainability Program (DOE)
MAAP	Modular Accident Analysis Program
MACCS	MELCOR Accident Consequence Code System
MAPPS	Maintenance Personnel Performance Simulation
MCR	main control room
MCS	minimal cut set
MD	Management Directive (NRC)
MELCOR	software tool for severe accident analysis (not defined as an acronym)
MGL	Multiple Greek Letter CCF model
MGS	motor-generator set
MIT	Massachusetts Institute of Technology
MLD	master logic diagram
MOV	motor-operated valve
MS	main steam
NASA	National Aeronautics and Space Administration
NEA	Nuclear Energy Agency (OECD)
NEI	Nuclear Energy Institute
NFPA	National Fire Protection Association
NMSS	NRC Office of Nuclear Materials Safety and Safeguards
NOED	Notice of Enforcement Discretion
NPP	nuclear power plant
NRC	U.S. Nuclear Regulatory Commission
	National Research Council
NRO	NRC Office of New Reactors
NRR	NRC Office of Nuclear Reactor Regulation
NSIR	NRC Office of Nuclear Security and Incident Response
NUREG	designation for publications prepared by NRC staff
NUREG/BR	designation for brochures prepared by NRC staff
NUREG/CP	designation for conference proceedings prepared by NRC staff or contractors
NUREG/CR	designation for publications prepared by NRC contractors
NUREG/IA	designation for publications resulting from international agreements
NUREG/KM	designation for publications prepared by NRC staff for knowledge management
OCR	optical character recognition
OECD	Organization for Economic Cooperation and Development
OI	Office Instruction (NRC)

OMB	U.S. Office of Management and Budget
OPDE	Piping Failure Data Exchange (OECD/NEA project)
OpE	operational experience
OSU	Ohio State University
PAG	Protective Action Guide
pdf	probability density function
PHWR	pressurized heavy water reactor
PIF	performance influencing factor
POS	plant operational state
PRA	probabilistic risk assessment
PSA	probabilistic safety assessment
PSF	performance shaping factor
PTS	pressurized thermal shock
PWR	pressurized water reactor
QHO	quantitative health objective
QRA	quantitative risk assessment
R&D	research and development
RAVEN	Risk Analysis Virtual Environment
RAW	Risk Achievement Worth importance measure
RB	reactor building
RBMK	reactor bolshoy moshchnosty kanalny (graphite-moderated reactor)
RCIC	reactor core isolation cooling
RCP	reactor coolant pump
RCS	reactor coolant system
RES	NRC Office of Nuclear Regulatory Research
RG	Regulatory Guide (NRC)
RHR	residual heat removal
RHRSW	residual heat removal service water
RIDM	risk-informed decision making
RIR	risk increase ratio importance measure
RISMC	Risk-Informed Safety Margin Characterization pathway (DOE)
RMIEP	Risk Methods Integration and Evaluation Program
ROP	Reactor Oversight Process
RRR	risk reduction ratio importance measure
RRW	risk reduction worth importance measure
RSSMAP	Reactor Safety Study Methodology Application Program
SACADA	Scenario Authoring, Characterization, and Debrief Application
SAMA	Severe Accident Mitigation Alternative
SAPHIRE	Systems Analysis Programs for Hands-on Integrated Reliability Evaluation
SBO	station blackout
SCAIS	Simulation Codes System for ISA
SDP	Significance Determination Process
SECY	designation for NRC staff papers to the Commission
SEL	Seismic Equipment List
SFP	spent fuel pool
SG	steam generator
SGHWR	steam-generating heavy water reactor
SGTR	steam generator tube rupture
SI	safety injection
SLC	Standby Liquid Control
SLOCA	small loss of coolant accident

SNL	Sandia National Laboratories
SPAR	Standardized Plant Analysis Risk
SPAR-H	Standardized Plant Analysis Risk Human Reliability Analysis
SRF	safety relief valve
SSC	systems, structures, and components
SSHAC	Senior Seismic Hazard Analysis Committee
STI	surveillance test interval
STUK	Säteilyturvakeskus (Finland Radiation and Nuclear Safety Authority)
SWGR	switchgear
T/M	testing and maintenance
TB	turbine building
TEPCO	Tokyo Electric Power Company
THERP	Technique for Human Error Rate Prediction
TMI	Three Mile Island (NPP)
TSO	technical support organization
UCLA	University of California, Los Angeles
UCS	Union of Concerned Scientists
UKAEA	United Kingdom Atomic Energy Authority
UKHSE	United Kingdom Health and Safety Executive
UMD	University of Maryland
UPM	Universidad Politécnica de Madrid (Spain)
VVER	water-water energetic reactor
WASH	designation for AEC reports
WGRISK	Working Group on Risk Assessment (OECD/NEA/CSNI working group)
XFMR	transformer
XFR	transfer