

C. ACRONYMS

2-D	two-dimensional
3-D	three-dimensional
AABVS	auxiliary/annex building ventilation subsystem
ABB	Asea Brown Boveri Company
ABWR	advanced boiling-water reactor
ac/AC	alternating current
ACI	American Concrete Institute
ACRS	Advisory Committee on Reactor Safeguards
ADAMS	Agencywide Documents Access and Management System Public Electronic Reading Room
ADGFOSS	ancillary diesel generator fuel oil supply system
ADS	automatic depressurization system
ADS-4	automatic depressurization system-Stage 4
ADVs	atmospheric dump valves
AEOD	NRC Office for Analysis and Evaluation of Operational Data
AFW	auxiliary feedwater
AFWS	auxiliary feedwater system
AHUs	air handling units
AI	automatic isolation
AICC	adiabatic isochoric complete combustion
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
ALARA	as low as is reasonably achievable
ALWR	advanced light water reactor
AM	accident management
ANS	American Nuclear Society
ANSI	American National Standards Institute
AOO	anticipated operational occurrences
AOV	air operated valves
APEX	Advanced Plant Experiment
APWR	advanced pressurized water reactor
ARM	area radiation monitor
ART	adjusted reference temperature
ASB	Auxiliary Systems Branch
ASB	auxiliary/shield building
ASCE	American Society of Civil Engineers
ASHRAE	American Society of Heating, Refrigerating and Air Conditioning
ASIs	adverse systems interactions
ASME Code	American Society of Mechanical Engineers Boiler and Pressure Vessel Code
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
ATC	automatic turbine control
ATWS	anticipated transient without scram
AVT	all-volatile treatment

AWS	American Welding Society
B&W	Babcock and Wilcox
B&WOG	B&W Owner's Group
BAC	bounding analysis curve
BAT	boric acid tank
BE	best estimate
BOC	beginning-of-cycle
BTP	branch technical position
BWR	boiling water reactor
BWROG	Boiling Water Reactor Owners' Group
CAS	central alarm station
CAS	compressed and instrument air system
CASS	cast austenitic stainless steel
CAV	cumulative absolute velocity
CB	circuit breakers
CBP	computer-based procedures
CCF	common cause failure
CCFP	conditional containment failure probability
CCI	core-concrete interaction
CCS	component cooling water system
CCW	component cooling water
CDF	core damage frequency
CE	Combustion Engineering
CET	containment event tree
CF	chemistry factor
CFD	computational fluid dynamics
CFE	early containment failure
CFI	intermediate containment failure
CFL	late containment failure
CFR	<u>Code of Federal Regulations</u>
CFS	condensate and feedwater system
CHF	critical heat flux
CI	containment isolation
CIS	containment isolation system
CIV	containment isolation valves
CIWH	condensation induced water hammer
CMS	condenser air removal system
CMT	core makeup tank
COL	combined license
COLR	Core Operating Limits Report
COMMON Q	common qualified platform
COTS	commercial off-the-shelf
CP	construction permit
CPG	containment performance goal
CPS	condensate polishing system
CR	control room
CRDM	control rod drive mechanism
CRD	control rod drive
CRDS	control rod drive system

CREATCS	control room emergency air temperature control system
CREFS	control room emergency filtration system
CS	core support
CSF	critical safety function
CsI	cesium iodide
CST	condensate storage tank
CUF	cumulative usage factor
CV	check valve
C _v	Charpy V-notch
CVCS	chemical and volume control system
CVS	chemical and volume control system
CWS	circulating water system
D-RAP	design reliability assurance program
DAC	derived air concentration
DAC	design acceptance criteria
DAS	diverse actuation system
DBA	design-basis accident
DBPB	design basis pipe break
DBT	design basis tornado
dc/DC	direct current
DC	design certification
DCD	design control document
DCH	direct containment heating
DDS	data and display processing system
DECLG	double-ended cold leg guillotine
DEDVI	double-ended direct vessel injection
DEH	digital electrohydraulic
DEI	dose equivalent iodine
DF	decontamination factor
DG	diesel generator
DHR	decay heat removal
DID	defense-in-depth
DMIMS	digital metal impact monitoring system
DNB	departure from nucleate boiling
DNBR	departure from nucleate boiling ratio
DOFs	degrees of freedom
DOP	dioctyl-phthalate polydispersed
DOS	standby diesel and auxiliary boiler fuel oil system
DOT	Department of Transportation
DSER	draft safety evaluation report
DTS	demineralized water treatment system
DVI	direct vessel injection
DWS	demineralized water transfer and storage system
DWST	demineralized water storage tank
EAB	exclusion area boundary
ECC	equilibrium cycle core
ECCS	emergency core cooling system
EDI	electrodeionization
EDO	NRC Executive Director for Operations

EDS	non-class 1E dc and UPS system
EF	error factor
EFDS	equipment and floor drainage system
EFPY	effective full-power year
EFW	emergency feedwater
EFWS	emergency feedwater system
EHT	effluent holdup tanks
ELS	plant lighting system
EM	evaluation model
EMC	electromagnetic compatibility
EMI	electromagnetic interference
EOC	end-of-cycle
EOF	emergency operations facility
EOL	end of life
EOP	emergency operating procedures
EP	emergency planning
EPA	Environmental Protection Agency
EPRI/MRP	EPRI Materials Reliability Project
EPRI	Electric Power Research Institute
EQ	equipment qualification
EQDP	equipment qualification data package
ERDS	Emergency Response Data System
ERG	emergency response guidelines
ERI	Energy Research, Inc.
ERVC	external reactor vessel cooling
ESF	engineered safety feature
ESFA	engineered safety features actuation
ESFAS	engineered safety features actuation system
ESP	early site permit
ESW	essential service water
ET	eddy current testing
ETS	emergency trip system
FBACS	fuel building air cleanup system
FBTA	function-based task analysis
FCC	first cycle core
FCI	fuel-coolant interactions
FCU	fan coil unit
FDA	final design approval
FE	finite element
FEMA	Federal Emergency Management Agency
FHA	fuel-handling accident
FHAVS	fuel handling area ventilation subsystem
FIV	flow-induced vibration
FLB	feedwater line break
FME	foreign material exclusion
FMEA	failure modes and effects analysis
FN	ferrite number
FPDS	flat panel display system
FPS	fire protection system

FRS	floor response spectra
FSAR	final safety analysis report
FSER	final safety evaluation report
FV&V	final verification and validation
FWW	Fussell-Vesely worth
FW	feedwater
GALE	gaseous and liquid effluent
GDC	general design criteria/criterion
GE	General Electric
GL	generic letter
GRCAs	gray rod cluster assemblies
GSI	generic safety issue
GSS	turbine gland seal system
H2TS	hierarchical, two-tiered scaling
HAZ	heat-affected zone
HCF	high cycle fatigue
HCLPF	high confidence that the particular SSC will have a low probability of failure
HCMS	hydrogen concentration monitoring system
HCSD	hot/cold shutdown
HEDs	human engineering discrepancies
HEL	high-energy line
HELB	high-energy line break
HEM	homogenous equilibrium model
HEP	human error probability
HEPA	high-efficiency particulate air
HFE	human factors engineering
HFP	hot full-power
HFS	Human Factors Society
HIC	high-integrity containers
HICB	Instrumentation and Controls Branch
HLHS	heavy load handling system
HPCI	high-pressure coolant injection
HPI	high-pressure injection
HPME	high-pressure core melt ejection
HPSI	high-pressure safety-injection
HRA	human reliability analysis
HSI	human-system interface
HVAC	heating, ventilation, and air conditioning
HX	heat exchanger
HZP	hot zero-power
I/O	input/output
I&C	instrumentation and control
IAEA	International Atomic Energy Agency
IAS	instrument air system
IASCC	irradiation-assisted stress-corrosion cracking
IC	intact containment
ICC	inadequate core cooling
ICCDP	incremental conditional core damage probability
ICSB	Instrumentation and Control Systems Branch

IDS	Class 1E dc system
IEB	Inspection and Enforcement bulletin
IEC	International Electrotechnical Commission
IEEE	Institute of Electrical and Electronics Engineers
IFM	intermediate flow mixing
IHP	integrated head package
IIS	in-core instrumentation system
ILRT	integrated leak rate testing
IN	information notice
INEEL	Idaho National Engineering and Environmental Laboratory
INEL	Idaho National Engineering Laboratory
INPO	Institute of Nuclear Power Operations
INSAG	International Nuclear Safety Advisory Group
IPSAC	investment protection short-term availability controls
IRWST	in-containment refueling water storage tank
ISA	Instrument Society of America
ISI	inservice inspection
ISLOCA	intersystem loss-of-coolant accident
ISLOCA	interfacing systems loss-of-coolant
IST	inservice testing
ITAAC	inspection, test, analyses, and acceptance criteria
ITG	Issue Task Group
ITP	initial test program
LBB	leak-before-break
LBHSs	large-bore hydraulic snubbers
LBLOCA	large-break loss-of-accident accident
LCF	low cycle fatigue
LCO	limiting condition for operation
LCSs	local control stations
LDS	leakage detection system
LEFM	linear elastic fracture mechanics
LER	licensee event report
LERF	large early release fraction
LLHS	light load handling system
LLOCA	large LOCA
LMFW	loss of main feedwater
LOCA	loss-of-coolant accident
LOFT	loss-of-flow tests
LOFTRAN	transient and SGTR computer analysis code
LONF	loss of normal feedwater
LOOP	loss of offsite power
LP	low pressure
LPSI	low pressure safety injection
LPZ	low population zone
LRA	license renewal application
LRF	large release frequency
LST	large-scale tests
LTC	long-term cooling
LTOP	low-temperature overpressure protection

LWR	light water reactor
M-G	motor-generator
M-MIS	man-machine interface system
MAAP	Modular Accident Analysis Program
MCC	motor control center
MCR	main control room
MCRE	main control room envelope
MFCS	main feedwater control system
MFCV	main feedwater control valve
MFIV	main feedwater isolation valve
MFRV	main feedwater regulation valve
MFW	main feedwater
MFWS	main feedwater system
MIL	military
ML	mid-loop
MLOCA	medium LOCA
MOV	motor operated valve
MRP	Materials Reliability Program
MS	main steam
MS&FW	main steam and feedwater
MSGTR	multiple steam generator tube rupture
MSIV	main steam isolation valve
MSLB	main steamline break
MSSS	main steam supply system
MSSVs	main steam safety valves
MTC	moderator temperature coefficient
MUX	multiplexer
NACE	National Association of Corrosion Engineers
NCC	natural convection cooldown
NCIG	Nuclear Construction Issues Group
NDE	nondestructive examination
NDT	nil-ductility temperature
NEMA	National Electrical Manufacturers Association
NFPA	National Fire Protection Association
NI	nuclear island
Ni-Cr-Fe	nickel-chromium-iron
NOAA	National Oceanic and Atmospheric Administration
NOTRUMP	small break LOCA computer analysis code
NPP	nuclear power plant
NPS	nominal pipe size
NPSH	net positive suction head
NRC	U.S. Nuclear Regulatory Commission
NRCA	nonradiologically controlled area
NS	non-seismic
NSAL	Nuclear Service Advisory Letter
NSR	non-safety-related
NSSS	nuclear steam supply system
NUREG	NRC technical report designation (Nuclear Regulatory Commission)
O-RAP	operational reliability assurance process

OBE	operating-basis earthquake
OCS	operation and control centers system
ODCM	offsite dose calculation manual
OECD	Organization for Economic Cooperation and Development
OER	operating experience review
OL	operating license
OM	operation and maintenance
OPDMS	on-line power distribution monitoring system
OPS	onsite power systems
OSA	operational sequence analysis
OSC	operational support center
OSU	Oregon State University
P/T	pressure and temperature
P&ID	pipng & instrumentation diagram (AP600)
P&ID	pipng and instrumentation drawings
PAM	postaccident monitoring
PAR	passive autocatalytic recombiner
PASS	postaccident sampling system
PCA	primary coolant activity
PCCS	passive containment cooling system (AP600)
PCCWST	passive containment cooling water storage tank
PCP	process control program
PCS	passive containment cooling system (AP1000)
PCT	peak cladding temperature
PGA	peak ground acceleration
PGS	plant gas systems
PIRT	phenomena identification and ranking table
PIV	pressure isolation valve
PLC	programable logic controller
PLHR	peak linear heat rate
PLS	plant control system
PMF	probable maximum flood
PMP	probable maximum precipitation
PMS	protection and safety monitoring system
PORV	power-operated relief valve
POV	power-operated valve
PRA	probabilistic risk assessment
PREACS	pump room exhaust air cleanup system
PRHR HX	passive residual heat removal heat exchanger
PRHR	passive residual heat removal system
PSAI	plant specific action items
PSARV	pressurizer safety and relief valve
PSB	Power Systems Branch
PSD	power spectral density
PSDF	power spectral density function
PSI	preservice inspection
PSS	primary sampling system
PSV	pressurizer safety valve
PTLR	pressure-temperature limits report

PTS	pressurized thermal shock
PVRC	Pressure Vessel Research Council
PWHT	post weld heat treatment
PWR	pressurized water reactor
PWS	potable water system
PWSCC	primary water stress corrosion cracking
PXS	passive core cooling system
PZR	pressurizer
QA	quality assurance
QDPS	qualified data processing system
QG	NRC Quality Group
QMS	quality management system
RAI	request for additional information
RAMI	reliability, availability, maintainability, and inspection
RAP	reliability assurance program
RAT	reserve auxiliary transformer
RAW	risk achievement worth
RC	reactor coolant
RCA	radiologically controlled area
RCCA	rod cluster control assembly
RCDT	reactor coolant drain tank
RCL	reactor coolant loop
RCP	reactor coolant pump
RCPB	reactor coolant pressure boundary
RCs	release categories
RCS	reactor coolant system
rem	roentgen equivalent man (unit of radiation exposure)
RES	NRC Office of Nuclear Regulatory Research
RETS	radiological effluent technical specifications
RFA	robust fuel assemblies
RFI	radio frequency interference
RG	regulatory guide
RH	relative humidity
RHR	residual heat removal
RMI	reflective metallic insulation
RMS	radiation monitoring system
RNS	normal residual heat removal system
RO	reactor operator
RO	reverse osmosis
ROAAM	Risk Oriented Accident Analysis Methodology
ROSA	Rig of Safety Assessment
RPS	reactor protection system
RPV	reactor pressure vessel
RRW	risk reduction worth
RSB	Reactor Systems Branch
RSR	remote shutdown room
RSS	remote shutdown station
RSW	remote shutdown workstation
RT	reactor trip

RTD	resistance temperature detector
RTDP	revised thermal design procedure
RTNSS	regulatory treatment of non-safety systems
RTP	rated thermal power
RTS	reactor trip system
RV	reactor vessel
RVH	reactor vessel head
RVHV	reactor vessel head vent
RVLIS	reactor vessel level indication system
RWS	raw water system
RWST	refueling water storage tanks
SACF	single active component failure
SAFDL	specified acceptable fuel design limit
SAM	seismic anchor motions
SAMDA	severe accident mitigation design alternative
SAT	systematic approach to training
SBLOCA	small-break loss-of-coolant accident
SBO	station blackout
SC	seismic category
SCC	stress-corrosion cracking
SCMP	software configuration management plan
SEA	Science and Engineering Associates, Inc.
SECY	Office of the Secretary of the Commission
SER	safety evaluation report
SFCV	startup feedwater control valve
SFD	severe fuel damage
SFIV	startup feedwater isolation valve
SFP	spent fuel pool
SFPCPS	spent fuel pool cooling and purification system
SFS	startup feedwater system
SFS	spent fuel pool cooling system
SFW	startup feedwater
SG	steam generator
S/G	steam generator
SGBS	steam generator blowdown system
SGD	subgroup design
SGS	steam generator system
SGSV	steam generator safety valve
SGTR	steam generator tube rupture
SLB	steam line break
SMA	seismic margin analysis
SMACNA	Sheet Metal and Air Conditioning Contractors' National Association
SMS	special monitoring system
SOERs	Significant Operating Event Reports
SOMP	software operation and maintenance plan
SPDS	safety parameter display system
SPES	Simulatore per Esperienze di Sicurezza
SPLB	NRC Plant Systems Branch
SPM	software program manual

SQAP	software quality assurance plan
SR	safety-related
SR	surveillance requirement
SRM	staff requirements memorandum
SRO	senior reactor operator
SROA	safety-related operator action
SRP	Standard Review Plan
SRSS	square root of the sum of squares
SRST	spent resin storage tank
SRV	safety relief valve
SRXB	Reactor Systems Branch
SS	shift supervisor
SSAR	standard safety analysis report (AP600)
SSCs	structures, systems and components
SSDs	System Specification Documents (AP600)
SSE	safe-shutdown earthquake
SSI	soil-structure interaction
SSP	software safety plan
SSS	secondary sampling system
SST	small scale test
STA	shift-technical advisor
STD	standard
STS	standard technical specification
SUFS	startup feedwater system
SUFWS	startup feedwater system
SVVP	software verification and validation plan
SWMS	solid waste management system
SWS	service water system
T-H	thermal-hydraulic
TASCS	thermal stratification, cycling and striping
Tavg	average temperature
TCS	turbine building closed cooling system
TDS	turbine island vents, drains, and relief system
TEDE	total effective dose equivalent
TGSCC	transgranular stress corrosion cracking
THD	total harmonic distortion
the Code	ASME Boiler and Pressure Vessel Code
THERP	technique for human error rate prediction
TID	total integrated dose
TMI	Three Mile Island
TS	technical specifications
TSC	technical support center
TSP	trisodium phosphate
UAT	unit auxiliary transformers
UBC	Uniform Building Code
UCSB	University of California, Santa Barbara
UET	unfavorable exposure time
UHS	ultimate heat sink
UPS	uninterruptable power supply

URD	Utility Requirements Document
URS	ultimate rupture strength
USE	upper-shelf energy
USI	unresolved safety issues
UT	ultrasonic testing
V&V	verification and validation
VAPORE	valve and pressure operating related experiments
VAS	radiologically controlled area ventilation system
VBS	nuclear island nonradioactive ventilation system
VCS	containment recirculation cooling system
VDU	video display unit
VES	main control room emergency habitability system
VFS	containment air filtration system
VHP	vessel head penetration
VHS	health physics and hot machine shop HVAC system
VRS	radwaste building HVAC system
VTS	turbine building ventilation system
VWS	central chilled water system
VXS	annex/auxiliary buildings non-radioactive HVAC system
VYS	plant hot water heating system
VZS	diesel generator DG building heating and ventilation system
<u>W</u> CAP	Westinghouse Commercial Atomic Power (report)
<u>W</u> COBRA/TRAC	Westinghouse large break LOCA and long term cooling computer analysis code
WDT	water distribution tests
WG	water gauge
<u>W</u> GOTHIC	Westinghouse-GOTHIC analysis code
WGS	gaseous radwaste system
WLS	liquid radwaste system
WOG	Westinghouse Owners Group
WRC	Welding Research Council
WRS	radioactive waste drain system
WSS	solid radwaste system
WWS	waste water system
ZOS	onsite standby power system
ZPA	zero period acceleration