

## ABBREVIATIONS

A&NS	alert and notification system
A2LA	American Association for Laboratory Accreditation
ac	alternating current
ACES	Automated Coastal Engineering System
ACI	American Concrete Institute
ACP	access control point
ACRS	Advisory Committee on Reactor Safeguards
ADAMS	Agencywide Documents Access and Management System
ADB	ancillary diesel building
ADG	ancillary diesel generator
ADS	automatic depressurization system
AEA	Atomic Energy Act
AEOF	Alternate EOF
AF	amplitude function
AFT	as-found tolerance
AFU	air filtration unit AHEx
ALARA	as low as reasonably achievable
ANI	American Nuclear Insurers
ANS	American Nuclear Society
ANSI	American National Standards Institute
ANSS	Advanced National Seismic System
AOO	anticipated operational occurrence
AOV	air-operated valve
API	American Petroleum Institute
AREOR	Annual Radiological Environmental Operating Report
ASHRAE	American Society of Heating, Refrigerating, and Air-Conditioning Engineers
ASME	American Society of Mechanical Engineers
ASCE	American Society of Civil Engineers
ASCE/SEI	American Society of Civil Engineers/Structural Engineering Institute
ASR	alkali-silica reactivity
ASTM	American Society of Testing and Materials
ATWS	anticipated transient without scram
B&V	Black & Veatch
BDBE	beyond-design-basis event
BE	best estimate
BL	bulletin
BPV	Boiler and Pressure Vessel
BPVC	Boiler and Pressure Vessel Code
BRE	bullet resisting enclosure
BTP	branch technical position
Btu	British thermal unit
BWR	boiling-water reactor
C	Celsius
cc	Cubic-centimeters

CAM	continuous air monitor
CAV	cumulative absolute velocity
CB	control building
CD-144	card deck-144 (format used in NCDC meteorological data)
CDA	critical digital asset
CDF	core damage frequency
CDI	conceptual design information
CEM	Coastal Engineering Manual
CENA	central and eastern North America
CEUS	central and eastern United States
CEUSSC	Central and Eastern United States Seismic Source Characterization
CF	chemistry factor
cfm	cubic feet per minute
CFR	Code of Federal Regulations
CHS	Charleston
CHV	Charlevoix
CIRC	circulating water system
CLSM	controlled low-strength material
cm	centimeter(s)
CMZ	Commerce fault zone
COCORP	Consortium for Continental Reflection Profiling
COL	combined license
COLA	combined license application
COOP	Cooperative Observation Program
CP	construction permit
CPS	condensate purification system
CPTs	cone penetrometer tests
CR	Coefficient Ratio-(SER Chapter 2)
CR	control room
CRD	control rod drive
CRHA	control room habitability area
CSTS	condensate storage and transfer system
CSAT	Cyber Security Assessment Team
CSDRS	certified seismic design response spectra
CSF	condensate storage facility
CSIRT	Cyber Security Incident Response Team
CSP	cyber security plan
CST	condensate storage tank
CVAP	Comprehensive Vibration Assessment Program
CVSZ	Central Virginia Seismic Zone
CWS	circulating water system
DAC	design acceptance criteria
DAW	dry active waste
DB	dry bulb
DBA	design-basis accident
DBE	design-basis event
DBT	design-basis threat
DBT	design basis tornado

DC	design certification
dc	direct current
DCA	Design certification application
DCD	design control document
DCF	damping correction factor
DCIS	distributed control and information system
DCR	design certification rule
DCRA	Design Centered Review Approach
DEM	digital elevation model
DG	diesel generator
DM	direct method
DMME	Virginia Department of Mines, Minerals and Energy
DOE	Department of Energy
Dominion	Dominion Virginia Power
DOT	Department of Transportation
DPV	depressurization valve
D-RAP	design reliability assurance program
DTE	Detroit Edison Company
DTPG	defined test plan group
DZO	depleted zinc oxide
EAB	exclusion area boundary
EAC	emergency alternating current
EAL	emergency action level
EAS	emergency alert system
ECC-AM	Extended Continental Crust – Atlantic Margin
ECCS	emergency core cooling system
ECGH	East Continent Gravity High
ECL	effluent concentration limit
ECRS	east continent rift system
ED	emergency director
EERI	Earthquake Engineering Research Institute
EDG	emergency diesel generator
EF	Enrico Fermi
ELAP	extended loss of alternating current power
EMD	emergency management division
EMDG	extensive damage mitigation guideline
EMI	electromagnetic interference
EMS	emergency medical service
ENS	emergency notification system
EOC	emergency operations center
EOF	emergency operations facility
EOL	end of life
EOP	emergency operating procedure
EP	emergency planning
EP	Emergency Preparedness
EPA	Environmental Protection Agency
EPAAct	Energy Policy Act of 2005
EPG	emergency procedure guideline

EPIP Emergency Plan Implementing Procedure  
 EPRI Electric Power Research Institute  
 EPZ emergency planning zone  
 EQ environmental qualification  
 EQD environmental qualification document  
 EQMEL Environmental Qualification Master Equipment List  
 ER environmental report  
 ERDS emergency response data system  
 ERF emergency response facility  
 ERO emergency response organization  
 ESBWR economic simplified boiling-water reactor  
 ESF engineered safety feature  
 ESP early site permit  
 ESP-003 North Anna 3 Early Site Permit  
 ETE evacuation time estimate  
 ETS emergency telecommunications system  
 ETSZ Giles County Seismic Zone and Eastern Tennessee Seismic Zone

F Fahrenheit  
 FAC flow-accelerated corrosion  
 FAPCS fuel and auxiliary pools cooling system  
 FATT fracture appearance transition temperatures  
 FB fuel building  
 FDA Final Design Approval  
 FE finite element  
 FEA finite element analysis  
 FEIS Final Environmental Impact Statement  
 FEM finite element model  
 FEMA Federal Emergency Management Agency  
 FERC Federal Energy Regulatory Commission  
 FFD fitness for duty  
 FFS free flow speed  
 FHA fire hazards analysis  
 FHA fuel handling accident  
 FIRS foundation input response spectra  
 FIV flow-induced vibration  
 FLEX diverse and flexible coping strategy  
 FNPP Fermi Nuclear Power Plant  
 FPS fire protection system  
 FPWS fire protection water system  
 FR Federal Register  
 FRMAC Federal Radiological Monitoring and Assessment Center  
 FRPP fiberglass reinforced polyester pipe  
 FRS floor response spectra  
 FS factor of safety  
 FSAR final safety analysis report  
 FSER final safety evaluation report  
 ft feet/foot  
 FTS Federal Technology Services

FWSC	fire water service complex
g	acceleration of gravity
Ga	billion years ago
GALL	generic aging lessons learned
GCRP	Global Change Research Program
GDC	general design criterion/criteria
GDCS	gravity-driven cooling system
GE	General Electric
GEER	Geotechnical Extreme Events Reconnaissance
GEH	General Electric – Hitachi (Nuclear Energy)
GFTZ	Grenville Front Tectonic Zone
GI	generic issue
GIA	glacial isostatic adjustment
GL	generic letter
GLERL	Great Lakes Environmental Research Laboratory
GLIMPCE	Great Lakes International Multidisciplinary Program on Crustal Evolution
GMH	Great Meteor Hotspot
GMM	ground motion model
GMPE	ground motion prediction equation
GMRS	ground motion response spectrum
gpm	gallons per minute
GPS	global positioning system
GSI	generic safety issue
GSI	geological strength index
GTG	generic technical guidance
GTS	generic technical specification
GWMS	gaseous waste management system
hr	hour
HAB	hostile action based
HCLPF	high confidence of low probability of failure
HCU	hydraulic control unit
HEC	Hydrological Engineering Centers
HEC-HMS	Hydrological Engineering Centers-Hydrological Modeling System
HEPA	high-efficiency particulate air
HF	high frequency
HFE	human factors engineering
HFI	human factor issue
HMR	Hydrometeorological Report
HMS	Hydrological Modeling System
HPM	human performance monitoring
HPN	Health Physics Network
HPS	Health Physics Society
HRA	human reliability analysis
HUSWO	Hourly U.S. Weather Observations
HVAC	heating, ventilation, and air conditioning
HWCS	hydrogen water chemistry system
Hz	Hertz

I&C	instrumentation and control
IAS	International Accreditation Service
IBC	International Building Code
IBEB	Illinois Basin Extended Basement
IC	isolation condenser
IC/PCCS	isolation condenser/passive containment cooling system
ICS	isolation condenser system
IDLH	immediate danger to life and health
IE	inspection and enforcement
IEC	International Electrotechnical Commission
IEEE	Institute of Electrical and Electronic Engineers
IFR	Interim finding report
IGLD	International Great Lakes Datum
ILAC	International Laboratory Accreditation Cooperation
IN	information notice
in.	inch(es)
INPO	Institute of Nuclear Power Operations
IPCS	integrated plant computer system
IR	intermediate range
ISFSI	independent spent fuel storage installation
ISG	interim staff guidance
ISHD	Integrated Surface Hourly Data
ISI	inservice inspection
ISRS	in-structure response spectra
IST	inservice testing
ITAAC	Inspections, tests, analyses, and acceptance criteria
ITC	International Transmission Company
ITP	initial test program
ITS	International Transmission Company
JFD	joint frequency distribution
JIC	joint public information center
JLD	Japan lesson-learned project directorate
JPIC	joint information center
ka	thousand years ago
Kd	Distribution Coefficients
KI	potassium iodide
km	kilometer(s)
kPa	kilopascals
kV	kilovolt
L-A-B	Laboratory Accreditation Bureau
LAN	local area network
LB	lower-bound
LBF	Long Branch fault
lb/ft <sup>2</sup>	pounds per square-foot
LCO	limiting condition for operation

LF	low frequency
LiDAR	light detection and ranging
LLNL	Lawrence Livermore National Laboratory
LLRW	low-level radioactive waste
LOA	Letters of Agreement
LOCA	loss-of-coolant accident
LOLA	loss of large area
LOOP	loss-of-offsite power
LOPP	loss of preferred power
Lpm	liter per minute
LPZ	low population zone
LR	lower-range
LSS	low strategic significance
LTOP	low temperature overpressure protection
LTR	licensing topical report
LTSP	limiting trip setpoint
LWMS	liquid waste management system
LWR	light water reactor
<b>M</b>	magnitude (earthquake)
Mmax	maximum magnitude
m	meter(s)
M&TE	measuring and test equipment
Ma	million years ago
MASR	minimum alternating stress ratio
MBtu	one million BTU
MC&A	material control and accounting
MCL	management counterpart link
MCPR	minimum critical power ratio
MCR	main control room
MCWB	mean coincident wet-bulb
MDCH	Michigan Department of Community Health
MDCT	mechanical draft cooling tower
MDEQ	Michigan Department of Environmental Quality
MEB	modified energy balance
MEI	maximally exposed individual
mi	material index
mi	mile(s)
MIDC	Midcontinent-Craton
MIS	marine isotope stage
MJ	megajoules
MMIS	man-machine interface system
MMP	Meteorological Monitoring Program
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MOV	motor-operated valve
MPa	megapascals
MPaG	megapascals gauge
mph	miles per hour

MPSC	Michigan Public Service Commission
MR	maintenance rule
MRA	Mutual Recognition Arrangement
MRCSP	Midwest Regional Carbon Sequestration Partnership
Mrem	millirem
MRS	midcontinent rift system
MSM	modified subtraction method
MST	mitigative strategies table
MW	megawatt
NA3	North Anna 3
NAAQS	National Ambient Air Quality Standards
NACE	National Association of Corrosion Engineers
NAP	Northern Appalachian
NAPS	North Anna Nuclear Power Station (North Anna 3)
NAPS CDI	NA3 FSAR site specific info that replaces Conceptual Design information in DCD
NAPS COL	NA3 FSAR site specific info addressing a DCD COL Item
NAPS DEP	NA3 FSAR site specific info that departs from the DCD
NAPS ESP COL	ESP COL Action items identify an ESP COL Action Item
NAPS ESP COR	Corrections to ESP Information in FSAR.
NAPS ESP PC	ESP Permit Conditions that are addressed in FSAR.
NAPS ESP VAR	ESP Variance from design or terms of the ESP
NAPS SUP	Supplemental FSAR information that is plant-specific
NAVD	North American Vertical Datum
NCDC	National Climatic Data Center
NCS	nuclear criticality safety
ND	Nuclear Development
ND QAPD	Nuclear Development Quality Assurance Program document
N-DCIS	nonsafety-related distributed control and information system
NDCT	natural draft cooling tower
NDE	nondestructive examination
NDT	nil ductility temperature
NEDB	National Earthquake Database
NEHRP	National Earthquake Hazards Reduction Program
NEI	Nuclear Energy Institute
NEIC	National Earthquake Information Center
NERC	National Electric Reliability Council
NESC	National Electrical Safety Code
NFEMP	Nuclear Facilities Emergency Management Plan
NFPA	National Fire Protection Association
NGA	Next Generation Attenuation
NGVD	National Geodetic Vertical Datum
NIRMA	Nuclear Information and Records Management Association
NIST	National Institute of Standards and Technology
NMF	New Madrid fault
NMFS	New Madrid fault system
NMSZ	New Madrid Seismic Zone
NNE	north-northeast
NOAA	National Oceanic and Atmospheric Administration



NOC	Nuclear Operations Center
NPHS	normal power heat sink
NQA	nuclear quality assurance
NRC	Nuclear Regulatory Commission
NRCS	Natural Resources Conservation Service
NRO	Office of New Reactors
NS	non-seismic
NTTF	Near-Term Task Force
NUMARC	Nuclear Utilities Management and Resources Council
NWS	National Weather Service
OBE	operating-basis earthquake
OCA	owner controlled area
OCANS	owner controlled area notification system
ODCM	offsite dose calculation manual
OE	Owner's Engineer
OEM	original equipment manufacturer
OGS	offgas system
OIS	oxygen injection system
OM	Operation and Maintenance Code
ORE	occupational radiation exposure
ORO	offsite response organization
OSC	operational support center
OTV	optical televiewer
P&ID	pipng and instrumentation diagram
P/T	pressure/temperature
PA	protected area
PA/PL	plant announcement (page)/party-line
PAA	protective action area
PABX	private automatic branch exchange
PAG	Protective Action Guide
PAM	post-accident monitoring
PAR	protective action recommendation
PAS	post-accident sampling
PASS	post-accident sampling system
PAT	power ascension test
PBSRS	performance-based surface response spectra
PCC	passive containment cooling
PCCS	passive containment cooling system
PCP	process control program
PCTMS	plant cooling tower makeup system
PEER	Pacific Earthquake Engineering Research
PERMS	process effluent radiation monitoring and sampling
PEZ	Paleozoic Extended Zone
PGA	peak ground acceleration
PGD	peak ground displacement
PGP	procedures generation package
PGV	peak ground velocity

PIP	plant investment protection
PMCL	protective measures counterpart link
PMF	probable maximum flood
PMH	probable maximum hurricane
PMP	probable maximum precipitation
PMT	probable maximum tsunami
PMWP	probable maximum winter precipitation
PMWS	probable maximum windstorm
PO	Purchase Orders
PORV	power-operated relief valve
POV	power-operated valve
ppb	parts per billion
PPS	preferred power supply
PRA	probabilistic risk assessment
PRMS	process radiation monitoring system
PSD	power spectral density
psf	pounds per square-foot
PSHA	probabilistic seismic hazard analysis
PSI	preservice inspection
psi	pounds per square inch
psia	pounds per square-inch absolute
psig	pound per square inch gauge
PSP	Physical Security Plan
PSS	process sampling system
PST	preservice testing
PSWS	plant service water system
PTLR	pressure and temperature limits report
PTS	plant-specific technical specifications
PWS	potable water system
PWSS	pretreated water supply system
QA	quality assurance
QAP	quality assurance program
QAPD	quality assurance program description
Q-DCIS	safety-related distributed control and information system
RAI	request for additional information
RAP	reliability assurance program
RAS	River Analysis System
RAT	reserve auxiliary transformer
RB	reactor building
RB/FB	reactor building & fuel building
RC	Recession Ratio
RCC	roller compacted concrete
RCCV	reinforced concrete containment vessel
RCCW	reactor closed-cooling water
RCCWS	reactor component cooling water system
R-COL	reference-COL
R-COLA	reference-COLA

RCPB	reactor coolant pressure boundary
RCS	reactor coolant system
RCTS	resonant column torsional shear
rem	roentgen equivalent man (a unit of radiation dose)
REMP	radiological environmental monitoring program
REP	radiological emergency preparedness
RERP	radiological emergency response preparedness
RET	radiological emergency team
RFI	radio frequency interference
RG	regulatory guide
RIS	regulatory issue summary
RLME	repeated large magnitude earthquake
RM	resolution method
RMS	radiation monitoring system
RO	reverse osmosis
RP	radiation protection
RPP	Radiation Protection Program
RQD	rock quality designations
RSCL	reactor safety counterpart link
RSW	reactor shield wall
RT	radiographic testing (or technique)
RTNDT	reference temperature nil ductility temperature
RTNSS	regulatory treatment of non-safety systems
RV	reactor vessel
RVSP	reactor vessel (materials) surveillance program
RWB	radwaste building
RWCU	reactor water cleanup
RWMS	radioactive waste management systems
RW-VS	radwaste building vent stack
s	second
SACTI	Seasonal/Annual Cooling Tower Impact
SAM	startup administrative manual
SAS	secondary alarm station
SASW	spectral analysis of surface wave
SAT	systems approach to training
SB	service building
SBO	station blackout
SCC	stress corrosion cracking
SCOR	soil column outcrop response
SCP	Safeguards Contingency Plan
SCRs	global study of earthquakes in stable continental regions
SDC	shutdown cooling
SDG	standby diesel generator
SDM	shutdown margin
SE	safety evaluation
SEC	Securities and Exchange Commission
SER	safety evaluation report
SFP	spent fuel pool

SFPC	spent fuel pool cooling
SGI	safeguards information
SL	stream gradient
SLC	standby liquid control
SLCS	standby liquid control system
SM	subtraction method
SNM	Special Nuclear Material
SNMPPP	Special Nuclear Material Physical Protection Plan
SOG	Seismic Owners Group
SPDS	safety parameter display system
SPT	standard penetration test
SR	surveillance requirement
SRI	select rod insert
SRM	staff requirements memorandum
SRO	senior reactor operator
SRP	Standard Review Plan
SRV/SV	safety relief valve/safety valve
SSAR	ESP site safety analysis report
SSC	structure, system, and component
SSCs	structures, systems and components
SSE	safe-shutdown earthquake
SSEMP	Safety, Security and Emergency Planning
SSEP	safety, security, and emergency preparedness
SSHAC	Senior Seismic Hazard Analysis Committee
SSI	soil-structure interaction
SSSI	structure-soil-structure interaction
SSW	south-southwest
Std	Standard
STS	standard technical specifications
SUNSI	Sensitive Unclassified Non-Safeguards Information
Sv	Sievert
SWMS	solid waste management system
SWS	station water system
SWST	station water storage tank
T&QP	Training and Qualification Plan
TAF	top of active fuel
TB	turbine building
TBS	turbine bypass system
TCCWS	turbine component cooling water system
TCP	traffic control point
TEDE	total effective dose equivalent
TG	Technical Guide
TGCS	turbine generator control system
TGSS	turbine gland seal system
THA	time-history accelerograph
TLD	thermoluminescent dosimeter
TMI	Three Mile Island
TMSS	turbine main steam system

TR	technical report
TS	technical specifications
TSC	technical support center
TSCR	truncated soil column response
TSTF	Technical Specifications Task Force
UAT	unit auxiliary transformer
UB	upper-bound
UC	unconfined compression
UHF	ultra-high frequency
UHRS	uniform hazard response spectra
UHS	ultimate heat sink
UPS	uninterruptible power supply
UR	upper-range
US	United States
USACE	U.S. Army Corps of Engineers
US-APWR	U.S. Advanced Pressurized Water Reactor
USCG	United States Coast Guard
USGS	United States Geological Survey
USI	unresolved safety issue
USNRC	United States Nuclear Regulatory Commission
UT	ultrasonic technique
UTM	Universal Transverse Mercator
V&V	verification and validation
V	volt
V/H	vertical-to-horizontal
Vac	volt alternating current
VBS	vehicle barrier system
Vdc	volt direct current
VEPCO	Virginia Electric and Power Company
VHRA	very high radiation area
Vp	compression wave velocity
Vpc	volt per cell
Vs	shear wave velocity
WB	wet bulb
WHTF	waste heat treatment facility
ZIS	zinc injection system