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1.1-201 Units 6 & 7 Layout

# CHAPTER 1 INTRODUCTION AND GENERAL DESCRIPTION OF THE PLANT

#### 1.1 INTRODUCTION

This section of the referenced DCD is incorporated by reference with the following departures and/or supplements.

Add the following paragraphs to the end of DCD Section 1.1.

STD SUP 1.1-1

This Final Safety Analysis Report (FSAR) incorporates the Design Control Document (DCD) (as identified in Table 1.6-201) for a simplified passive advanced light water reactor plant provided by Westinghouse Electric Company, the entity originally sponsoring and obtaining the AP1000 design certification documented in 10 CFR Part 52, Appendix D. Throughout this FSAR, the "referenced DCD" is the AP1000 DCD submitted by Westinghouse as Revision 17 including any supplemental material as identified in Table 1.6-201. Unless otherwise specified, reference to the DCD refers to Tier 2 information.

PTN SUP 1.1-2

This FSAR is hereby submitted under Section 103 of the Atomic Energy Act by Florida Power & Light Company (FPL) to the NRC as part of the application for two Class 103 combined licenses to construct and operate two nuclear power plants under the provisions of 10 CFR Part 52 Subpart C.

#### 1.1.1 PLANT LOCATION

Add the following text at the beginning of DCD Subsection 1.1.1:

PTN COL 2.1-1

Turkey Point Units 6 & 7 are part of the larger Turkey Point plant property located in unincorporated Miami-Dade County, Florida. The approximately 11,000-acre Turkey Point plant property comprises two oil/gas-fired (Units 1 & 2), one gas-fired combined cycle (Unit 5), and four nuclear powered (Units 3, 4, 6, & 7) steam

electric generating units. Figure 2.1-201 shows the Turkey Point property and the surrounding area within 50 miles. Figure 2.1-202 shows the general location of the Turkey Point property and localities surrounding the site within 10 miles. Figure 1.1-201 identifies the plant arrangement within the site.

The Turkey Point plant property is located approximately 25 miles south of Miami, 8 miles east of Florida City, and 9 miles southeast of Homestead, Florida. Miami-Dade County is bounded on the north by Broward County, on the west by Monroe and Collier Counties, on the east by Biscayne Bay and the Atlantic Ocean, and on the south by the Florida Bay and the Florida Keys (Monroe County). Miami-Dade County is located along the southeast tip of the Florida Peninsula and covers approximately 2000 square miles of land area with approximately one-third of the area consisting primarily of the Everglades National Park.

#### 1.1.5 SCHEDULE

Add the following text to the end of DCD Subsection 1.1.5:

PTN COL 1.1-1

Table 1.1-203 displays the anticipated schedule for construction and operation of two AP1000 units at the Turkey Point site. A site-specific construction plan and startup schedule will be provided to the NRC after issuance of the COL.

#### 1.1.6.1 Regulatory Guide 1.70

Add the following text to the end of DCD Subsection 1.1.6.1.

STD SUP 1.1-6

This FSAR generally follows the AP1000 DCD organization and numbering. Some organization and numbering differences are adopted where necessary to include additional material, such as additional content identified in Regulatory Guide 1.206. Any exceptions are identified with the appropriate left margin annotation as discussed in Subsection 1.1.6.3 and Table 1.1-202.

#### 1.1.6.3 Text, Tables and Figures

Add the following text to the end of DCD Subsection 1.1.6.3.

STD SUP 1.1-3

Table 1.1-202 describes the left margin annotations used in this document to identify departures, supplementary information, COL items, and conceptual design information.

FSAR tables, figures, and references are numbered in the same manner as the DCD, but the first new FSAR item is numbered as 201, the second 202, the third 203, and consecutively thereafter. When a table, figure, or reference in the DCD is changed, the change is appropriately left margin annotated as identified above.

New appendices are included in the FSAR with double letter designations following the pertinent chapter (e.g., 12AA).

When it provides greater contextual clarity, an existing DCD table or figure is revised by adding new information to the table or figure and replacing the DCD table or figure with a new one in the FSAR. In this instance, the revised table or figure clearly identifies the information being added, and retains the same numbering as in the DCD, but the table or figure number is revised to end with the designation "R" to indicate that the table or figure has been revised and replaced. For example, revised "Table 4.2-1" would become "Table 4.2-1R." New and revised tables and figures are labeled in the left margin as described in Table 1.1-202.

#### 1.1.6.5 Proprietary Information

Insert the following text to the end of DCD Subsection 1.1.6.5.

STD SUP 1.1-4

Some portions of this FSAR may be considered as proprietary, personal, or sensitive and withheld from public disclosure pursuant to 10 CFR 2.390 and Regulatory Issue Summary (RIS) 2005-026. Such material is clearly marked and the withheld material is separately provided for NRC review.

### 1.1.6.6 Acronyms

Add the following text to the end of DCD Subsection 1.1.6.6.

PTN SUP 1.1-5

Table 1.1-201 provides a list of acronyms and abbreviations used in the Units 6 & 7 FSAR in addition to the acronyms identified in DCD Table 1.1-1, and system designation identified in Table 1.7-201 and DCD Table 1.7-2.

#### 1.1.7 COMBINED LICENSE INFORMATION

Add the following text to the end of DCD Subsection 1.1.7.

PTN COL 1.1-1 This COL Item is addressed in Subsection 1.1.5.

# Table 1.1-201 (Sheet 1 of 8) Acronyms and Abbreviations Used in the FSAR

Acronym/Abbreviation	Definition	
ADAMS	Agency-wide Documents Access and Management System	
AFB	Air Force Base	
AGMTHAG	Atlantic and Gulf of Mexico Tsunami Hazards Assessments Group	
ags	above ground surface	
ALOHA	areal locations of hazardous atmospheres	
AMC	Annual Maintenance Cost	
AMO	Atlantic Multi-decadal Oscillation	
ANSS	Advanced National Seismic System	
AOC	Annual Operating Cost	
AOV	air-operated valve	
APT	aquifer pumping test	
ARS	acceleration response spectra	
B&PVC	Boiler and Pressure Vessel Code	
BE	best estimate	
bgs	below ground surface	
BIL	basic insulation level	
BLEVE	boiling liquid expanding vapor explosion	
BODC	British Oceanographic Data Centre	
BSSC	Building Seismic Safety Council	
C&SF Project	Central and Southern Florida Flood Control Project	
CAM	continuous air monitor	
CBR	California bearing ratio	
CCDP	conditional core damage probability	
CDF	core damage frequency	
CDI	conceptual design information	
CEO	chief executive officer	
CERP	Comprehensive Everglades Restoration Plan	
CEUS	Central and Eastern United States	
CNO	chief nuclear officer	
COV	coefficient of variation	
CPT	cone penetrometer testing	
CRF	Capital Recovery Factor	
CRREL	Cold Region Research and Engineering Laboratory	

#### PTN SUP 1.1-5

# Table 1.1-201 (Sheet 2 of 8) Acronyms and Abbreviations Used in the FSAR

CSDRS	certified seismic design response spectra	
CSR	cyclic stress ratio	
CT-E	cooling tower east	
CT-W	cooling tower west	
CU	consolidated undrained	
D/Q	deposition factors	
DAC	derived air concentration	
DBF	design basis flood	
DCEM	Direct Cost of Equipment and Materials	
DLC	Direct Labor Cost	
DNAG	Decade of North America Project	
DRS	design response spectra	
DRS/ENV	surface-DRS-to-envelope-ARS ratio	
DTPG	defined test plan groups	
EAA	Everglades Agricultural Area	
EAB	exclusion area boundary	
ECCS	emergency core cooling system	
ECL	effluent concentration limits	
EDT	eastern daylight savings time	
EERC	Earthquake Engineering Research Center	
EF	enhanced Fujita	
ENP	Everglades National Park	
ENP-SDCS	Everglades National Park-South Dade Conveyance System	
ENS	emergency notification system	
EOP	emergency operating procedure	
EP-ITAAC	emergency planning ITAAC	
EPZ	emergency planning zone	
EQ	environmental qualification	
EQMEL	EQ master equipment list	
ERO	emergency response organization	
ESRI	Environmental Systems Research Institute	
ETR	energy transfer ratio	
FAC	flow accelerated corrosion	
FAR	soil column away from the nuclear island	
FAS	Floridan aquifer system	

#### PTN SUP 1.1-5

# Table 1.1-201 (Sheet 3 of 8) Acronyms and Abbreviations Used in the FSAR

FCA	Federal Flood Control Act	
FDEP	Florida Department of Environmental Protection	
FEMA	Federal Emergency Management Agency	
FFD	fitness for duty	
FGS	Florida Geologic Survey	
FHA	fire hazards analysis	
FHWA	Federal Highway Administration	
FIRS	foundation input response spectra	
	· · ·	
FMG	failure mode groups	
FOS	factor of safety	
FPL	Florida Power & Light Company	
FRCC	Florida Reliability Coordinating Council	
FRS	flow response spectra	
FSAR	final safety analysis report	
GBF	Gorringe Bank Fault	
GCF	Gulf of Cadiz Fault	
GEBCO	General Bathymetric Chart of the Oceans	
GLORIA	geological long-range inclined asdic	
GMRS	ground motion response spectra	
GSU	main step-up transformer	
HCLPF	high confidence, low probability of failure	
HF	high frequency	
HiRAT	high resolution acoustic televiewer probe	
НМІ	human-machine interfaces	
HRHF	hard rock high frequency	
HSF	Horseshoe Fault	
HV	high voltage	
ICF	Indirect Cost Factor	
IDLH	immediately dangerous to life and health	
IPEEE	individual plant examination of external events	
ISC	International Seismological Centre	
ISFSI	independent spent fuel storage installation	
ISMCS	International Station Meteorological Climate Summary	
ITA	inspections, tests, or analyses	
ITP	initial test program	

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#### PTN SUP 1.1-5

# Table 1.1-201 (Sheet 4 of 8) Acronyms and Abbreviations Used in the FSAR

JOG	Joint Owners Group	
JTWG	joint test working group	
	7	
KGS	Kansas Geological Survey	
LB	lower bound	
LBR	limerock bearing ratio	
LCCF	Labor Cost Correction Factor	
LCD	local climatological data	
LCO	limiting conditions for operation	
LF	low frequency	
LFL	lower flammability limit	
LL	liquid limit	
LLW	low level waste	
LP	liquid penetrant	
LTOP	low temperature overpressure protection	
LU	land utilization	
Ма	million years ago	
MASW	multi-channel analysis of surface waves	
MCAC	Mexico, Central America and Caribbean	
MDWASD	Miami-Dade Water and Sewer Department	
MIDAS	Middle America Seismograph Consortium	
Mmax	maximum magnitude	
MMI	modified mercalli intensity	
MPF	Marqués de Pombal Fault	
MPSSZ	Middleton Place-Summerville Seismic Zone	
MSDS	material safety data sheet	
MSE	mechanically stabilized earth	
MSL	mean sea level	
MSPI	mitigating systems performance indicators	
MT	magnetic particle testing	
MVA	megavolt ampere	
MWR	makeup water reservoir	
NAAQS	National Ambient Air Quality Standards	
NAD	North American Datum	
NAVD	North American Vertical Datum	
NCDC	National Climatic Data Center	

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#### PTN SUP 1.1-5

# Table 1.1-201 (Sheet 5 of 8) Acronyms and Abbreviations Used in the FSAR

NDE	nondestructive examination	
NEIC	National Earthquake Information Center	
NERC	North American Electric Reliability Corporation	
NESC	National Electric Safety Code	
NESDIS	National Environmental Satellite Data and Information Service	
NGDC	National Geophysical Data Center	
NGVD	National Geodetic Vertical Datum	
NI	soil column near the nuclear island	
NIOSH	National Institute of Occupational Safety and Health	
NOAA	National Oceanic and Atmospheric Administration	
NQAM	nuclear quality assurance manual	
NRCS	National Resources Conservation Service	
NS	non-seismic	
NSSL	National Severe Storms Laboratory	
NWS	National Weather Service	
ODCM	offsite dose calculation manual	
OSC	operations support center	
OSHA	Occupational Safety and Health Administration	
OW	observation well	
PC	personal computer	
PCP	Process Control Program	
PDE	preliminary determination of epicenter	
PEL	permissible exposure limit	
PGA	peak ground acceleration	
PI	plasticity index	
PL	plastic limit	
PL-E	parking lot east	
PMF	probable maximum flood	
PMH	probable maximum hurricane	
PMP	probable maximum precipitation	
PMSS	probable maximum storm surge	
PMT	probable maximum tsunami	
PMWS	probable maximum wind storm	
POI	point of interest	
PORV	power operated relief value	

#### PTN SUP 1.1-5

# Table 1.1-201 (Sheet 6 of 8) Acronyms and Abbreviations Used in the FSAR

DDM	parte per million	
PPM	parts per million	
PRSN	Puerto Rico Seismic Network	
PS-ITAAC	physical security ITAAC	
PSHA	probabilistic seismic hazard analysis	
PST	preservice test	
PT	liquid penetrant	
PT&O	plant test and operations	
PVC	Polyvinyl Chloride	
QAPD	quality assurance program description	
QAPP	quality assurance program plan	
QMS	quality management system	
RAT	reserve auxiliary transformer	
RCA	radiological controlled area	
RCPB	reactor coolant pressure boundary	
RCTS	resonant column torsional shear	
RESRAD	residual radioactive	
RIS	Regulatory Issue Summary	
RO reactor operator		
RPV	reactor pressure vessel	
RQD	rock quality designation	
RRS	required response spectrum	
RT	radiographic testing	
RTDP	revised thermal design procedure	
RTMC	real time monitor and control	
RVT	random vibration theory	
SA	spectral acceleration	
SAMDA	severe accident mitigation design alternatives	
SAMG	severe accident management guidance	
SARA	Superfund Amendments and Reauthorization Act	
SCBA	self-contained breathing apparatus	
SDP	significance determination process	
SDWWTP	South District Wastewater Treatment Plant	
SERCC	Southeast Regional Climate Center	
SFWMD	South Florida Water Management District	
SGMP	steam generator management program	

#### PTN SUP 1.1-5

# Table 1.1-201 (Sheet 7 of 8) Acronyms and Abbreviations Used in the FSAR

SLOSH	Sea, Lake, and Overland Surges from Hurricanes	
SNM	Special Nuclear Material	
SOG	seismicity owners group	
SOV	solenoid-operated valve	
SP	poorly graded sand	
SP	spontaneous potential	
SPR	single point resistance	
SPT	standard penetration test	
SRO	senior reactor operator	
SS-ITAAC	site-specific ITAAC	
SSC	structures, systems, and components	
SSHAC	Senior Seismic Hazard Analysis Committee	
STA	Shift Technical Advisor	
STL	Severn Trent Laboratories	
SVF	St. Vincente Fault	
SWV	shear wave velocity	
SY-W	switchyard west	
TAC	Total Annual Cost	
TDS	total dissolved solids	
TIBL	thermal internal boundary layer	
TLD	thermo-luminescent dosimeter	
TLV	threshold limit value	
TNT	trinitrotoluene	
TP	test pit	
TRS	test response spectrum	
TS	Technical Specification(s)	
TWA	time-weighted average	
UB	upper bound	
UCSS	Updated Charleston Seismic Source	
UFL	upper flammability limit	
UFSAR	Updated Final Safety Analysis Report	
UHRS	uniform hazard response spectra	
UHS	ultimate heat sink	
USACE	U.S. Army Corps of Engineers	
USCB	United States Census Bureau	
	1	

#### PTN SUP 1.1-5

# Table 1.1-201 (Sheet 8 of 8) Acronyms and Abbreviations Used in the FSAR

USCS	Unified Soil Classification System	
USDA	United States Department of Agriculture	
USDW	underground source of drinking water	
USGS	United States Geological Survey	
UT	ultrasonic testing	
UTNM	universal transverse mercator	
VCIS	ventilation climate information system	
VPS	Pump House Building Ventilation System	
WAC	waste acceptance criteria	
WCA	water conservation area	
WEC	Westinghouse Electric Company	
WGCEP	Working Group on California Earthquake Predictions	
WUS	Western United States	
X/Q	atmospheric dispersion value	
YBP	years before present	

#### STD SUP 1.1-3

## Table 1.1-202 Left Margin Annotations

Margin Notation	Definition and Use
STD DEP X.Y.Z-#	FSAR information that departs from the generic DCD and is common for parallel applicants. Each Standard Departure is numbered separately at an appropriate level, e.g., STD DEP 9.2-1, or STD DEP 9.2.1-1
NPP DEP X.Y.Z-#	FSAR information that departs from the generic DCD and is plant specific. NPP is replaced with a plant specific identifier. Each Departure item is numbered separately at an appropriate subsection level, e.g., NPP DEP 9.2-2, or NPP DEP 9.2.1-2
STD COL X.Y-#	FSAR information that addresses a DCD Combined License Information item and is common to other COL applicants. Each COL item is numbered as identified in DCD Table 1.8-2 and FSAR Table 1.8-202, e.g., STD COL 4.4-1, or STD COL 19.59.10.5-1
NPP COL X.Y-#	FSAR information that addresses a DCD Combined License Information item and is plant specific. NPP is replaced with a plant specific identifier. Each COL item is numbered as identified in DCD Table 1.8-2 and FSAR Table 1.8-202, e.g., NPP COL 4.4-1, or NPP COL 19.59.10.5-1
NPP CDI or STD CDI	FSAR information that addresses DCD Conceptual Design Information (CDI). Replacement design information is generally plant specific; however, some may be common to other applicants. NPP is replaced with a plant specific identifier. STD is used if it is common. CDI information replacements are not numbered.
STD SUP X.Y-#	FSAR information that supplements the material in the DCD and is common to other COL applicants. Each SUP item is numbered separately at an appropriate subsection level, e.g., STD SUP 1.10-1, or STD SUP 9.5.1-1
NPP SUP X.Y-#	FSAR information that supplements the material in the DCD and is plant specific. NPP is replaced with a plant specific identifier. Each SUP item is numbered separately at an appropriate subsection level, e.g., NPP SUP 3.10-1, or NPP SUP 9.2.5-1
DCD	FSAR information that duplicates material in the DCD. Such information from the DCD is repeated in the FSAR only in instances determined necessary to provide contextual clarity.

#### PTN COL 1.1-1

## Table 1.1-203 Schedule for Construction and Operation of Units 6 & 7

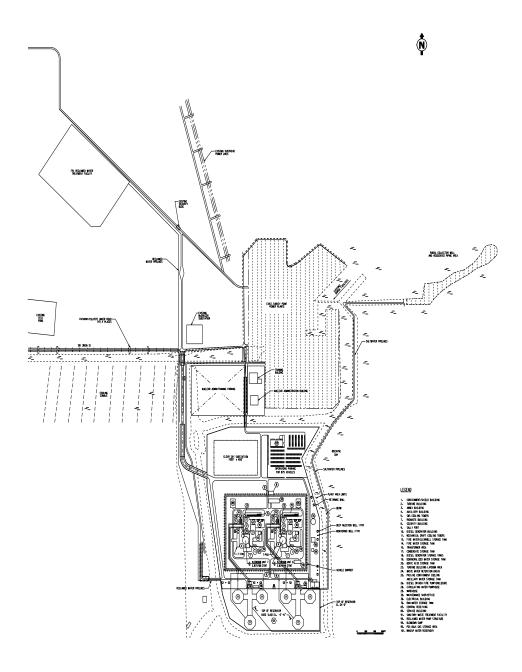
Activity	Start	Finish	
Unit 6			
Site Preparation	2Q 2013 <sup>(a)</sup>	2Q 2018	
Commence Construction Activities <sup>(b)</sup>	2Q 2016	4Q 2021	
Fuel Load, Commence Startup	4Q 2021	2Q 2022	
Commence Operation	2Q 2022	_	
Unit 7			
Site Preparation	2Q 2013 <sup>(a)</sup>	2Q 2018	
Commence Construction Activities <sup>(b)</sup>	2Q 2017	4Q 2022	
Fuel Load, Commence Startup	4Q 2022	2Q 2023	
Commence Operation	2Q 2023	_	

Note: Quarters are for the calendar year.

- (a) Some road and bridge work initiated prior to receipt of COL.
- (b) 48 month standard plant construction plus activities under NRC authority (e.g., slurry wall installation).

PTN COL 2.1-1
PTN COL 3.3-1
PTN COL 3.5-1

Figure 1.1-201 Units 6 & 7 Layout



#### 1.2 GENERAL PLANT DESCRIPTION

This section of the referenced DCD is incorporated by reference with the following departures and/or supplements.

#### 1.2.2 SITE DESCRIPTION

In Subsection 1.2.2 of the DCD, replace the information titled "Site Plan" with the following text.

#### Site Plan

PTN COL 2.1-1
PTN COL 3.3-1
PTN COL 3.5-1

A typical site plan for a single-unit AP1000 reference unit is shown in DCD Figure 1.2-2. The directions north, south, east, and west used in this description are the conventions used in the DCD for the orientation of AP1000 structures and equipment and differ from geographic north, south, east and west.

The Units 6 & 7 layout is shown on Figure 1.1-201. Principal structures and facilities, parking areas, and roads are illustrated. Orientation of the two units is such that "plant north" faces true north. Unless otherwise noted, directions in this FSAR are based on true north. The plant building floor elevation for design is North American Vertical Datum 1988 (NAVD 88) elevation 26'-0" and corresponds to DCD Elevation 100'-0". Therefore, the DCD elevation values are to be decreased by 74 feet to reflect actual site elevations. The actual plant grade floor elevation will vary to accommodate floor slope and layout requirements.

As stated in DCD Subsection 1.2.1.6.1, the power block complex consists of five principal building structures: the nuclear island, the turbine building, the annex building, the diesel generator building, and the radwaste building. Each of these building structures is constructed on an individual basemat. The nuclear island consists of the containment building, the shield building, and the auxiliary building, all of which are constructed on a common basemat.

DCD Figure 1.2-3 provides a functional representation of the principal systems and components that are located in each of the key AP1000 buildings. This figure identifies major systems and components that are contained in these structures.

Each of the two main cooling tower circulating water pump complexes consists of mechanical draft cooling towers, a pump basin, circulating water pumps, and associated piping. The cooling towers are located south of the reactors and the

circulating pumps are located near the cooling towers. The pumps circulate the cooling water from the pump basin to the main condensers and back to the cooling towers.

The FPL reclaimed water treatment facility, located northwest of Units 6 & 7, treats reclaimed water from the Miami-Dade Water and Sewer Department (MDWASD) and provides water to the makeup water reservoir south of Units 6 & 7. Pumps transfer makeup water to the circulating water system from the makeup water reservoir. Additionally, radial collector wells, located northeast of Units 6 & 7, provide saltwater as an alternative makeup water supply to the circulating water systems. Potable water from the MDWASD supplies the makeup requirements of the other plant systems.

Road access to the site is from the north and west.

There is no railway access to the site.

During construction, a heavy lift crane was used to place major pieces of equipment such as the turbine generator, reactor vessel, steam generators, containment ring sections, large structural modules, and other large or heavy equipment modules.

#### 1.2.3 PLANT ARRANGEMENT DESCRIPTION

Add the following paragraph at the end of DCD Subsection 1.2.3:

PTN DEP 18.8-1 DCD Figure 1.2-18 is modified to reflect the relocation of the Operations Support Center by changing the description of room number 40318 from "ALARA" BRIEFING RM AND OPERATIONAL SUPPORT CENTER" to "ALARA BRIEFING RM."

## 1.3 COMPARISONS WITH SIMILAR FACILITY DESIGNS

This section of the referenced DCD is incorporated by reference with no departures or supplements.

#### 1.4 IDENTIFYING AGENTS AND CONTRACTORS

This section of the referenced DCD is incorporated by reference with the following departures and/or supplements.

#### 1.4.1 APPLICANT — PROGRAM MANAGER

Add the following paragraphs as the first two paragraphs in DCD Subsection 1.4.1:

PTN SUP 1.4-1

FPL is the applicant for Combined Licenses for Units 6 & 7 and will own and operate both units. FPL is an investor-owned regulated utility, primarily engaged in the generation, transmission, and distribution of electricity. The service territory covers the southern third and almost the entire eastern seaboard of the state of Florida. FPL supplies electric service to approximately 4.5 million customer accounts.

FPL owns and operates the following four nuclear power plants:

- St. Lucie Unit 1, near Ft. Pierce, Florida
- St. Lucie Unit 2, near Ft. Pierce, Florida (85 percent ownership, FPL is authorized to act as agent for the Orlando Utilities Commission of the city of Orlando, Florida and Florida Municipal Power Agency)
- Turkey Point Units 3 & 4, near Florida City, Florida

FPL began building nuclear power plants in the 1960s and has operated nuclear power plants since 1972.

Add the following paragraphs to the end of DCD Subsection 1.4.1:

PTN SUP 1.4-2

Contractors participating in preparing the COL application are addressed in Subsection 1.4.2.8.

Not all participants have been identified at this time. In particular, the AP1000 NSSS provider, architect-engineer, and constructor have not yet contracted. This section of the FSAR will be revised to include information identifying the NSSS provider, the architect-engineer, and the constructor following the establishment of

contracts for these purposes. This information will include descriptions of the technical qualifications of the NSSS provider, the architect-engineer, and the constructor, and address the division of responsibility among them and the operator.

Add the following new subsection after DCD Subsection 1.4.2.7:

#### PTN SUP 1.4-3 1.4.2.8 Other Contractors

Contractual relationships have been established with specialized consulting firms to assist in preparing the COL application for Units 6 & 7.

#### 1.4.2.8.1 Bechtel Power Corporation

Bechtel Power Corporation prepared and published the COL application.

#### 1.4.2.8.2 Contingency Management Consulting Group, LLC

Contingency Management Consulting Group, LLC, as a subcontractor to Bechtel Power Corporation, provided support for preparing the Emergency Plan and the Security Plan.

#### 1.4.2.8.3 Environmental Consulting & Technology, Inc.

Environmental Consulting & Technology, Inc., as a subcontractor to Bechtel Power Corporation, performed investigations for the electrical transmission lines and corridors.

#### 1.4.2.8.4 Golder Associates, Inc.

Golder Associates, Inc., as a subcontractor to Bechtel Power Corporation, performed environmental assessments for use in the Environmental Report.

#### 1.4.2.8.5 KLD Associates, Inc.

KLD Associates, Inc., as a subcontractor to Bechtel Power Corporation, performed the Evacuation Time Estimate Study in support of the COL application.

#### 1.4.2.8.6 MACTEC Engineering and Consulting, Inc.

MACTEC Engineering and Consulting, Inc., as a subcontractor to Bechtel Power Corporation, performed geotechnical field investigations and laboratory testing in support of the COL application.

#### 1.4.2.8.7 McNabb Hydrogeologic Consulting, Inc.

McNabb Hydrogeologic Consulting, Inc., as a subcontractor to Bechtel Power Corporation, performed studies related to deep injection wells.

#### 1.4.2.8.8 NuStart Energy, Inc.

NuStart Energy, Inc. prepared the Reference COL application (Bellefonte Units 3 and 4) used as a template for preparing the non-site-specific portions of the COL application.

#### 1.4.2.8.9 Risk Engineering, Inc.

Risk Engineering, Inc., as a subcontractor to Bechtel Power Corporation, performed the probabilistic seismic hazard analyses for developing the site-specific ground motion response spectra.

#### 1.4.2.8.10 Tetra Tech NUS, Inc.

Tetra Tech NUS, Inc., as a subcontractor to Bechtel Power Corporation, provided services for site investigations and preparing the Environmental Report and portions of the FSAR.

#### 1.4.2.8.11 William Lettis & Associates, Inc.

William Lettis & Associates, Inc., as a subcontractor to Bechtel Power Corporation, provided technical services to include field and office studies for the identification and characterization of seismic source zones.

#### 1.4.2.8.12 Westinghouse Electric Company LLC

Westinghouse Electric Company LLC provided information on the design and safety analysis of the AP1000 for use in preparing the site-specific portions of the COL application.

## 1.5 REQUIREMENTS FOR FURTHER TECHNICAL INFORMATION

This section of the referenced DCD is incorporated by reference with no departures or supplements.

#### 1.6 MATERIAL REFERENCED

This section of the referenced DCD is incorporated by reference with the following departures and/or supplements.

Add the following text to the end of DCD Section 1.6.

STD SUP 1.6-1

Table 1.6-201 provides a list of the various technical documents incorporated by reference in the FSAR in addition to those technical documents incorporated by reference in the AP1000 DCD.

## Table 1.6-201 Additional Material Referenced

	Author/Report Number <sup>(a)</sup>	Title	Revision	FSAR Section	Document Transmittal	ADAMS Accession Number
STD SUP 1.6-1	Westinghouse/ APP-GW-GL-700	AP1000 Design Control Document	17	All	September 2008	ML083230868
	NEI 07-08A	Generic FSAR Template Guidance for Ensuring That Occupational Radiation Exposures Are As Low As Is Reasonably Achievable (ALARA)	0	12.1	October 2009	ML093220164
	NEI 07-03A	Generic FSAR Template Guidance for Radiation Protection Program Description	0	Appendix 12AA	May 2009	ML091490684
	NEI 06-13A	Template for an Industry Training Program Description	2	13.2	March 2009	ML090910554
	NEI 07-02A	Generic FSAR Template Guidance for Maintenance Rule Program Description for Plants Licensed Under 10 CFR Part 52	0	17.6	March 2008	ML080910149
PTN SUP 1.6-2	QAPD	Florida Power and Light Company New Nuclear Projects Quality Assurance Program Description FPL-2	1	17.5	August 31, 2010	_
	Emergency Plan	Florida Power & Light Company Turkey Point Plant Radiological Emergency Plan	1	13.3	September 2010	_
	Security Plan	Florida Power & Light Company Turkey Point Units 6 & 7 Physical Security Plan	1	13.6	July 2010	Not applicable (Safeguards)
	Cyber Security Plan	Florida Power & Light Company Turkey Point Units 6 & 7 Cyber Security Plan	0	13.6	July 2010	Not applicable (SUNSI)

<sup>(</sup>a) The NRC-accepted NEI documents identified by the A in the document number include the accepted template, the NRC safety evaluation, and corresponding responses to the NRC Requests for Additional Information. Only the accepted template is incorporated by reference. The remainder of the document is referenced but not incorporated into the FSAR.(A) Denotes NRC approved document.

1.6-2 Revision 2

#### 1.7 DRAWINGS AND OTHER DETAILED INFORMATION

This section of the referenced DCD is incorporated by reference with the following departures and/or supplements.

#### 1.7.2 PIPING AND INSTRUMENTATION DIAGRAMS

Add the following text to the end of DCD Subsection 1.7.2.

PTN SUP 1.7-1

Table 1.7-201 contains a list of piping and instrumentation diagrams (P&IDs) or system diagrams and the corresponding FSAR figure numbers that supplement the DCD.

#### PTN SUP 1.7-1

## Table 1.7-201 AP1000 System Designators and System Diagrams

Designator	System	FSAR Section	FSAR Figure
CWS	Circulating Water System	10.4.5	10.4-201
RWS	Raw Water System	9.2.11	9.2-201
ZBS	Offsite Power System One-Line Diagram	8.2.1	8.2-201
	Switchyard General Arrangement	8.2.1	8.2-202

1.7-2 Revision 2

#### 1.8 INTERFACES FOR STANDARD DESIGN

This section of the referenced DCD is incorporated by reference with the following departures and/or supplements.

Add the following paragraphs to the end of DCD Section 1.8.

Departures from the referenced DCD are summarized in Table 1.8-201. Table 1.8-201 lists each departure and the FSAR section or subsection impacted.

PTN SUP 1.8-2

DCD Table 1.8-2 presents Combined License Information for the AP1000. Items requiring COL Applicant or COL Holder action are presented in Table 1.8-202. FSAR section(s) addressing these COL items are tabulated in this table. COL Holder items listed in Table 1.8-202 are regulatory commitments of the COL Holder and these actions are completed as specified in the appropriate section of the referenced DCD. Completion of these COL Holder items is the subject of a Combined License Condition as presented in a separate document submitted as part of this COL application.

DCD Table 1.8-1 presents interface items for the AP1000. FSAR section(s) addressing these interface items are tabulated in Table 1.8-203.

## Table 1.8-201 (Sheet 1 of 2) Summary of FSAR Departures from the DCD

Departure Number	Departure Description Summary	FSAR Section or Subsection
STD DEP 1.1-1	An administrative departure is established to identify instances where the renumbering of FSAR sections is necessary to effectively include content consistent with RG 1.206, as well as NUREG-0800. (a)	2.1.1 2.1.4 2.2.1 2.2.4 2.4.1 2.4.15 2.5 2.5.6 9.2.11 9.2.12 9.2.13 9.5.1.8 9.5.1.9 13.1 13.1.4 13.5 13.5.3 13.7 17.5 17.6 17.7 17.8
PTN DEP 2.0-1	The DCD site parameter value for operating basis wind speed in DCD Tier 2, Table 2-1 is 145 miles per hour. In DCD Appendix 3H, the operating design basis wind speed is a Tier 2* value. The corresponding site characteristic is the 50-year return period, 3-second gust wind speed of 150 miles per hour as reported in FSAR Subsection 2.3.1.3.1. This site characteristic exceeds the DCD site parameter by 5 miles per hour.	2.0 2.3.1.3.1 3.3.1.1 3.3.3 3H3.3
PTN DEP 2.0-2	The DCD site parameter value for the maximum normal air temperature wet bulb (noncoincident) in DCD Tier 2, Table 2-1 is 80.1°F. The corresponding site characteristic value is 81.5°F as reported in FSAR Subsection 2.3.1.5. This site characteristic exceeds the DCD site parameter by 1.4°F.	2.0 2.3.1.5 9.2.1.2 9.2.7.2
PTN DEP 2.0-3	The site parameter value provided in the DCD Tier 1, Table 5.0-1 for the air temperature maximum wet bulb (noncoincident) is 86.1°F. This site parameter value is listed as the maximum safety wet bulb (noncoincident) air temperature in DCD Tier 2, Table 2-1. The corresponding site characteristic value is 87.4°F as reported in FSAR Subsection 2.3.1.5. This site characteristic exceeds the DCD site parameter by 1.3°F.	2.0 2.3.1.5 5.4.7.1 9.2.2.1

## Table 1.8-201 (Sheet 2 of 2) Summary of FSAR Departures from the DCD

Departure Number	Departure Description Summary	FSAR Section or Subsection
PTN DEP 2.0-4	DCD Table 2-1 lists a site parameter for the population distribution exclusion area (site) of 0.5 miles. The distance from the Units 6 & 7 source boundary to the exclusion area boundary (EAB) and the atmospheric dispersion value (X/Q) at the EAB are listed in Tables 2.3.4-201, 2.3.4-202, and 2.3.4-203. All sector distances, except for S, SSW, and SSE sectors, are less than the 0.5 mile site parameter, with the minimum being 0.27 miles in the northeast sector.	2.0 2.1.2 2.3.4.2
PTN DEP 2.5-1	DELETED	N/A
PTN DEP 9.3-1	DCD Subsection 9.3.2.2.1 describes the hydrogen gas portion of the plant gas system as a packaged system consisting of a liquid hydrogen storage tank and vaporizers. Units 6 & 7 will use a series of hydrogen storage banks that store hydrogen gas in banks of storage tubes instead of the liquid hydrogen storage tank and vaporizers. The hydrogen gas storage banks will be located at the hydrogen storage tank area.	9.3.2.2 9.3.2.5
PTN DEP 18.8-1	The Operations Support Center (OSC) is being moved from the location identified in DCD Subsections 18.8.3.6, 12.5.2.2, and 12.5.3.2 and as identified on DCD figures in Subsections 1.2, 12.3, and Appendix 9A. There will be a single OSC for Units 6 & 7 located as described in the Emergency Plan.	1.2.3 9.4.2.2 9A 12.3.1.2 12.5.2.2 12.5.3.2 18.8.3.6
PTN DEP 18.8-2	The Technical Support Center (TSC) is not located in the control support area as identified in DCD Subsection 18.8.3.5. The TSC is common for Turkey Point Units 3, 4, 6, and 7 and is located as described in the Emergency Plan.	18.8.3.5
PTN DEP 19.58-1	As shown in Table 19.58-201, the initiating event frequency for high winds at Units 6 & 7 are higher than those in the DCD. Therefore, a site-specific analysis of high winds and tornadoes was conducted to determine core damage frequency (CDF). The analysis determined the total CDF for Case 1 (loss of offsite power) is 3.3E-09, the CDF for Case 2 (loss of offsite power with non-safety systems unavailable for select events) is 1.0E-08, and for Case 3 (loss of offsite power with non-safety systems unavailable for all events) the CDF is 2.0E-08 per year. These values are higher than the DCD CDF values listed in DCD Table 19.58-3.	19.58

<sup>(</sup>a) The Departure is standard for AP1000 COL applications but the applicable FSAR sections or subsections may vary in AP1000 subsequent COL applications.

## Table 1.8-202 (Sheet 1 of 9) COL Item Tabulation

COL Item	Subject	DCD Subsection	FSAR Section(s)	COL Applicant (A), Holder (H), Or Both (B)
1.1-1	Construction and Startup Schedule	1.1.7	1.1.5 1.1.7	Α
1.9-1	Regulatory Guide Conformance	1.9.1.5	1.9.1 1.9.1.1 1.9.1.2 1.9.1.3 1.9.1.4 1.9.1.5 Appendix 1A Appendix 1AA	A
1.9-2 <sup>(a)</sup>	Bulletins and Generic Letters	1.9.5.5	1.9.5.5	Α
1.9-3 <sup>(a)</sup>	Unresolved Safety Issues and Generic Safety Issues	Table 1.9-2 1.9.4.1	1.9.4.1 1.9.4.2.3	A
2.1-1	Geography and Demography	2.1.1	1.1.1 1.2.2 2.1	A
2.2-1	Identification of Site-Specific Potential Hazards	2.2.1	2.2	Α
2.3-1	Regional Climatology	2.3.6.1	2.3.1 2.3.6.1	A
2.3-2	Local Meteorology	2.3.6.2	2.3.2 2.3.6.2	A
2.3-3	Onsite Meteorological Measurements Program	2.3.6.3	2.3.3 2.3.6.3	Α
2.3-4	Short-Term Diffusion Estimates	2.3.6.4	2.3.4 2.3.6.4 15.6.5.3.7.3 15A.3.3	A
2.3-5	Long-Term Diffusion Estimates	2.3.6.5	2.3.5 2.3.6.5	Α
2.4-1	Hydrological Description	2.4.1.1	2.4.1 2.4.8 2.4.15.1	A
2.4-2	Floods	2.4.1.2	2.4.2 2.4.3 2.4.4 2.4.5 2.4.6 2.4.7 2.4.10 2.4.15.2	A
2.4-3	Cooling Water Supply	2.4.1.3	2.4.9 2.4.11 2.4.15.3	А

#### PTN SUP 1.8-2

# Table 1.8-202 (Sheet 2 of 9) COL Item Tabulation

COL Item	Subject	DCD Subsection	FSAR Section(s)	COL Applicant (A), Holder (H), Or Both (B)
2.4-4	Groundwater	2.4.1.4	2.4.12.1 2.4.12.2 2.4.12.4 2.4.12.5 2.4.15.4	A
2.4-5	Accidental Release of Liquid Effluents into Ground and Surface Water	2.4.1.5	2.4.12.3 2.4.13 2.4.15.5	A
2.4-6	Flood Protection Emergency Operation Procedures	2.4.1.6	2.4.10 2.4.14 2.4.15.6	A
2.5-1	Basic Geologic and Seismic Information	2.5.1	2.5.1 2.5.2.1 2.5.4 2.5.4.1 2.5.6.1	A
2.5-2	Site Seismic and Tectonic Characteristics Information	2.5.2.1	2.5.2 2.5.4.7 2.5.4.9 2.5.6.2	A
2.5-3	Geoscience Parameters	2.5.2.3	2.5.2.6 2.5.4.1.1 2.5.6.3	A
2.5-4	Surface Faulting	2.5.3	2.5.3 2.5.6.4	А
2.5-5	Site and Structures	2.5.4.6.1	2.5.4 2.5.4.1 2.5.4.3 2.5.6.5	A
2.5-6	Properties of Underlying Materials	2.5.4.6.2	2.5.4.2 2.5.4.3 2.5.4.4 2.5.4.6 2.5.4.7 2.5.6.6	A
2.5-7	Excavation and Backfill	2.5.4.6.3	2.5.4.5 2.5.4.10.4 2.5.4.12 2.5.6.7	A
2.5-8	Groundwater Conditions	2.5.4.6.4	2.5.4.6 2.5.6.8	А
2.5-9	Liquefaction Potential	2.5.4.6.5	2.5.4.8 2.5.6.9	Α
2.5-10	Bearing Capacity	2.5.4.6.6	2.5.4.10 2.5.6.10	А
2.5-11	Earth Pressures	2.5.4.6.7	2.5.4.10.4 2.5.6.11	A

# Table 1.8-202 (Sheet 3 of 9) COL Item Tabulation

COL Item	Subject	DCD Subsection	FSAR Section(s)	COL Applicant (A), Holder (H), Or Both (B)
2.5-12	Static and Dynamic Stability of	2.5.4.6.9	2.5.4.10.3	A A
2.0 12	Facilities	2.0.1.0.0	2.5.6.12	
2.5-13	Subsurface Instrumentation	2.5.4.6.10	2.5.4.5 2.5.6.13	A
2.5-14	Stability of Slopes	2.5.5	2.5.5 2.5.6.14	A
2.5-15	Embankments and Dams	2.5.6	2.5.5.1.1 2.5.6.15	Α
2.5-16	Settlement of Nuclear Island	2.5.4.6.11	2.5.4.10.3 2.5.6.16	А
3.3-1	Wind and Tornado Site Interface Criteria	3.3.3	1.2.2 2.2.1 3.3.1.1 3.3.2.1 3.3.2.3 3.3.3 3.5.1.5 3.5.1.6	A
3.4-1	Site-Specific Flooding Hazards Protective Measures	3.4.3	3.4.1.3 3.4.3	Α
3.5-1	External Missile Protection Requirements	3.5.4	1.2.2 2.2.1 3.3.1.1 3.3.2.1 3.3.2.3 3.5.1.5 3.5.1.6 3.5.4	A
3.6-1	Pipe Break Hazards Analysis	3.6.4.1	3.6.4.1 14.3.3.2	Н
3.6-4	Primary System Inspection Program for Leak-Before-Break Piping	3.6.4.4	3.6.4.4	А
3.7-1	Seismic Analysis of Dams	3.7.5.1	3.7.2.12 3.7.5.1	А
3.7-2	Post-Earthquake Procedures	3.7.5.2	3.7.4.4 3.7.5.2	А
3.7-3	Seismic Interaction Review	3.7.5.3	3.7.5.3	Н
3.7-4	Reconciliation of Seismic Analyses of Nuclear Island Structures	3.7.5.4	3.7.5.4	Н
3.7-5	Location of Free-Field Acceleration Sensor	3.7.5.5	3.7.4.2.1 3.7.5.5	А
3.9-2	Design Specification and Reports	3.9.8.2	3.9.8.2	Н
3.9-3	Snubber Operability Testing	3.9.8.3	3.9.3.4.4 3.9.8.3	Α

#### PTN SUP 1.8-2

# Table 1.8-202 (Sheet 4 of 9) COL Item Tabulation

COL Item	Subject	DCD Subsection	FSAR Section(s)	COL Applicant (A), Holder (H), Or Both (B)
3.9-4	Valve Inservice Testing	3.9.8.4	3.9.6	Α
			3.9.6.2.2 3.9.6.2.3	
			3.9.6.2.4	
			3.9.6.2.5	
			3.9.6.3	
3.9-5	Curse Line Thermal Menitering	3.9.8.5	3.9.8.4	^
3.9-3	Surge Line Thermal Monitoring	3.9.6.5	3.9.8.5	Α
			14.2.9.2.22	
3.9-7	As-Designed Piping Analysis	3.9.8.7	3.9.8.7	Н
			14.3.3.3	
3.11-1	Equipment Qualification File	3.11.5	3.11.5	Н
4.4-2	Confirm Assumptions for Safety Analyses DNBR Limits	4.4.7.2	4.4.7	Н
5.2-1	ASME Code and Addenda	5.2.6.1	5.2.1.1 5.2.6.1	A
5.2-2	Plant Specific Inspection Program	5.2.6.2	5.2.4	Α
			5.2.4.1 5.2.4.3.1	
			5.2.4.3.2	
			5.2.4.4	
			5.2.4.5	
			5.2.4.6 5.2.4.8	
			5.2.4.9	
			5.2.4.10	
			5.2.6.2	
5.3-1	Reactor Vessel Pressure — Temperature Limit Curves	5.3.6.1	5.3.6.1	Н
5.3-2	Reactor Vessel Materials	5.3.6.2	5.3.2.6	Α
	Surveillance Program		5.3.2.6.3	
5.3-4	Reactor Vessel Materials	5.3.6.4.1	5.3.6.2 5.3.6.4.1	Н
J.J- <del>4</del>	Properties Verification	3.3.0.4.1	3.3.0.4.1	11
5.4-1	Steam Generator Tube Integrity	5.4.15	5.4.2.5	Α
			5.4.15	
6.1-1	Procedure Review for Austenitic	6.1.3.1	6.1.1.2	Α
0.4.0	Stainless Steels	0.4.0.0	6.1.3.1	
6.1-2	Coating Program	6.1.3.2	6.1.2.1.6 6.1.3.2	Α
6.2-1	Containment Leak Rate Testing	6.2.6	6.2.5.1	Α
U. <u>L</u> 1	Sometiment Loak Natio Testing	3.2.0	6.2.5.2.2	, ,
			6.2.6	
6.3-1	Containment Cleanliness Program	6.3.8.1	6.3.8.1	Α
6.4-1	Local Hazardous Gas Services and Monitoring	6.4.7	6.4.4.2 6.4.7	A
	Monitoring		6.4.7	

# Table 1.8-202 (Sheet 5 of 9) COL Item Tabulation

COL Item	Subject	DCD Subsection	FSAR Section(s)	COL Applicant (A), Holder (H), Or Both (B)
6.4-2	Procedures for Training for Control	6.4.7	6.4.3	Α
	Room Habitability		6.4.7	
6.6-1	Inspection Programs	6.6.9.1	6.6 6.6.1 6.6.3.1 6.6.3.2 6.6.3.3 6.6.4 6.6.6 6.6.9.1	A
6.6-2	Construction Activities	6.6.9.2	6.6.2 6.6.9.2	А
7.1-1	Setpoint Calculations for Protective Functions	7.1.6.1	7.1.6.1	В
7.5-1	Post Accident Monitoring	7.5.5	7.5.2 7.5.3.5 7.5.5	А
8.2-1	Offsite Electrical Power	8.2.5	8.2.1 8.2.1.1 8.2.1.2 8.2.1.3 8.2.1.4 8.2.5	A
8.2-2	Technical Interfaces	8.2.5	8.2.1.2.1 8.2.2 8.2.5	А
8.3-1	Grounding and Lightning Protection	8.3.3	8.3.1.1.7 8.3.1.1.8 8.3.3	А
8.3-2	Onsite Electrical Power Plant Procedures	8.3.3	8.3.1.1.2.4 8.3.1.1.6 8.3.2.1.4 8.3.3	A
9.1-5	Inservice Inspection Program of Cranes	9.1.6.5	9.1.4.4 9.1.5.4 9.1.6.5	А
9.1-6	Radiation Monitor	9.1.6.6	9.1.4.3.8 9.1.5.3 9.1.6.6	А
9.1-7	Metamic Monitoring Program	9.1.6.7	9.1.6.7	Н
9.2-1	Potable Water	9.2.11.1	9.2.5.2.1 9.2.5.3 9.2.6.2.1 9.2.12.1	A
9.2-2	Wastewater Retention Basins	9.2.11.2	9.2.9.2.2 9.2.12.2	A

# Table 1.8-202 (Sheet 6 of 9) COL Item Tabulation

		DCD	FSAR	COL Applicant (A), Holder (H), Or Both
9.3-1	Subject Air Systems (NUREG-0933 Issue	Subsection 9.3.7	Section(s) 9.3.7	(B)
9.3-1	43)	9.3.7	9.3.7	Α
9.4-1	Ventilation Systems Operations	9.4.12	9.4.1.4 9.4.7.4 9.4.12	А
9.5-1	Qualification Requirements for Fire Protection Program	9.5.1.8.1	9.5.1.6 9.5.1.8 9.5.1.8.1 9.5.1.8.1.2 9.5.1.8.2 9.5.1.8.3 9.5.1.8.4 9.5.1.8.5 9.5.1.8.6 9.5.1.8.7 9.5.1.9.1 13.1.1.2.10 13.1.2.1.3.9	A
9.5-2	Fire Protection Analysis Information	9.5.1.8.2	9.5.1.9.2 9A.3.3	A
9.5-3	Regulatory Conformance	9.5.1.8.3	9.5.1.8.1.1 9.5.1.8.8 9.5.1.8.9 9.5.1.9.3 9A.3.3	A
9.5-4	NFPA Exceptions	9.5.1.8.4	9.5.1.8.1.1 9.5.1.9.4	А
9.5-6	Verification of Field Installed Fire Barriers	9.5.1.8.6	9.5.1.8.6 9.5.1.9.6	Н
9.5-8	Establishment of Procedures to Minimize Risk for Fire Areas Breached During Maintenance	9.5.1.8.7	9.5.1.8.1.2 9.5.1.9.7	A
9.5-9	Offsite Interfaces	9.5.2.5.1	9.5.2.2.5 9.5.2.5.1	A
9.5-10	Emergency Offsite Communications	9.5.2.5.2	9.5.2.2.5 9.5.2.5.2	А
9.5-11	Security Communications	9.5.2.5.3	9.5.2.5.3	А
9.5-13	Fuel Degradation Protection	9.5.4.7.2	9.5.4.5.2 9.5.4.7.2	А
10.1-1	Erosion-Corrosion Monitoring	10.1.3	10.1.3	Н
10.2-1	Turbine Maintenance and Inspection	10.2.6	10.2.6	Н
10.4-1	Circulating Water Supply	10.4.12.1	10.4.5.2.1 10.4.5.2.2 10.4.5.5 10.4.12.1	A

# Table 1.8-202 (Sheet 7 of 9) COL Item Tabulation

COL Item	Subject	DCD Subsection	FSAR Section(s)	COL Applicant (A), Holder (H), Or Both (B)
10.4-2	Condensate, Feedwater and	10.4.12.2	10.4.7.2.1	A
10.12	Auxiliary Steam System Chemistry Control	10.1.12.2	10.4.12.2	
10.4-3			10.4.12.3	Α
11.2-1	Mobile Equipment		11.2.1.2.5.2 11.2.5.1	А
11.2-2			11.2.3.5 11.2.5.2	А
11.3-1	Cost Benefit Analysis of Population Doses	11.3.5.1	11.3.3.4.3 11.3.3.4.4 11.3.5.1	A
11.4-1	Solid Waste Management System Process Control Program	11.4.6	11.4.6	А
11.5-1	Plant Offsite Dose Calculation Manual (ODCM)	11.5.8	11.5.8	А
11.5-2	Effluent Monitoring and Sampling	11.5.8	11.5.1.2 11.5.2.4 11.5.3 11.5.4 11.5.4.1 11.5.4.2 11.5.6.5 11.5.8	A
11.5-3	10 CFR 50, Appendix I	11.5.8	11.2.3.5 11.3.3.4 11.5.8	A
12.1-1	ALARA and Operational Policies	12.1.3	12.1 12.1.3 Appendix 12AA	А
12.2-1	Additional Contained Radiation Sources	12.2.3	12.2.1.1.10 12.2.3	A
12.3-1	Administrative Controls for Radiological Protection	12.3.5.1	12.3.5.1 Appendix 12AA	А
12.3-2	Criteria and Methods for Radiological Protection	12.3.5.2	12.3.4 12.3.5.2	А
12.3-3	Groundwater Monitoring Program	12.3.5.3 12.3.5.4	12.3.5.3 12AA.5.4.14	А
12.3-4	2.3-4 Record of Operational Events of Interest for Decommissioning		12.3.5.4 12AA.5.4.15	А
12.5-1	Radiological Protection Organization and Procedures	12.5.5	12.5.5 Appendix 12AA	А
13.1-1 Organizational Structure of Combined License Applicant		13.1.1	13.1 13.1.4 Appendix 13AA	A
13.2-1	Training Program for Plant Personnel	13.2.1	13.2 13.2.1	A

# Table 1.8-202 (Sheet 8 of 9) COL Item Tabulation

COL Item	Subject	DCD Subsection	FSAR Section(s)	COL Applicant (A), Holder (H), Or Both (B)
13.3-1	Emergency Planning and	13.3.1	13.3	Α
10.0 1	Communications	10.0.1	13.3.1	
13.3-2	Activation of Emergency	13.3.1	13.3	Α
	Operations Facility		13.3.1	
13.4-1	Operational Review	13.4.1	13.4	A
	•		13.4.1	
13.5-1	Plant Procedures	13.5.1	13.5 13.5.3	А
13.6-1	Security	13.6	13.6 13.6.1 13.6.2 14.3.2.3.2	A
13.6-5	Cyber Security Program	13.6.1	13.6 13.6.1	Н
14.4-1	Organization and Staffing	14.4.1	14.2.2 14.4.1	Α
14.4-2	Test Specifics and Procedures	14.4.2	14.4.2	Н
14.4-3	Conduct of Test Program	14.4.3	14.4.3	Н
14.4-4	Review and Evaluation of Test Results	14.4.4	14.2.3.2 14.4.4	Н
14.4-5	Testing Interface Requirements	14.4.5	14.2.9.4.15 14.2.9.4.22 to 14.2.9.4.27 14.2.10.4.29 14.4.5	A
14.4-6	First-Plant-Only and Three-Plant-Only Tests	14.4.6	14.4.6	В
15.0-1	Documentation of Plant Calorimetric Uncertainty Methodology	15.0.15.1	15.0.15 15.0.3.2	Н
15.7-1	Consequences of Tank Failure	15.7.6	2.4.13 15.7.6	Α
16.1-1	Technical Specification Preliminary Information	16.1	16.1.1	Α
16.3-1	Procedure to Control Operability of Investment Protection Systems, Structures, and Components	16.3.2	16.3.1 16.3.2	A
17.5-1	Quality Assurance Design Phase	17.5.1	17.1 17.5 17.7	A
17.5-2	Quality Assurance for Procurement, Fabrication, Installation, Construction, and Testing	17.5.2	17.5 17.7	A
17.5-4	Quality Assurance Program for Operations	17.5.4	17.5 17.7	Α

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## Table 1.8-202 (Sheet 9 of 9) COL Item Tabulation

COL Item	Subject	DCD Subsection	FSAR Section(s)	COL Applicant (A), Holder (H), Or Both (B)
17.5-8	Operational Reliability Assurance Program Integration with Quality Assurance Program	17.5.8	17.5 17.7	A
18.2-2	Design of the Emergency Operations Facility	18.2.6.2	18.2.1.3 18.2.6.2	A
18.6-1	Plant Staffing	18.6.1	13.1.1.4 13.1.3.1 13.1.3.2 18.6 18.6.1	A
18.10-1	Training Program Development	18.10.1	13.1.1.3.2.5 13.2 18.10 18.10.1	A
18.14-1	Human Performance Monitoring	18.14	18.14	Α
19.59.10-1	As-Built SSC HCLPF Comparison to Seismic Margin Evaluation	19.59.10.5	19.59.10.5	Н
19.59.10-2	Evaluation of As-Built Plant Versus Design in AP1000 PRA and Site- Specific PRA External Events	19.59.10.5	19.59.10.5	В
19.59.10-3	Internal Fire and Internal Flood Analyses	19.59.10.5	19.59.10.5	Н
19.59.10-4	Implement Severe Accident Management Guidance	19.59.10.5	19.59.10.5	Н
19.59.10-5	Equipment Survivability	19.59.10.5	19.59.10.5	Н

<sup>(</sup>a) COL Items 1.9-2 and 1.9-3 are not numbered in the DCD.

## Table 1.8-203 (Sheet 1 of 6) Summary of FSAR Discussions of AP1000 Plant Interfaces

Item No.	Interface	Interface Type	Matching Interface Item	Section <sup>(a)</sup> or Subsection
2.1	Envelope of AP1000 plant site related parameters	Site Interface	Site specific parameters	Table 2.0-201
2.2	External missiles from man-made hazards and accidents	Site Interface	Site specific parameters	2.2.2.2, 2.2.3.1, 3.5
2.3	Maximum loads from man-made hazards and accidents	Site Interface	Site specific parameters	Table 2.0-201
2.4	Limiting meteorological parameters (X/Q) for design basis accidents and for routine releases and other extreme meteorological conditions for the design of systems and components exposed to the environment.	Site Interface	Site specific parameters	Table 2.0-201
2.5	Tornado and operating basis wind loadings	Site Interface	Site specific parameters	Table 2.0-201
2.6	External missiles generated by natural phenomena	Site Interface	Site specific parameters	Table 2.0-201
2.7	Snow, ice and rain loads	Site Interface	Site specific parameters	2.3.1.3
2.8	Ambient air temperatures	Site Interface	Site specific parameters	Table 2.0-201
2.9	Onsite meteorological measurement program	Requirement of AP1000	Combined License applicant program	2.3.3
2.10	Flood and ground water elevations	Site Interface	Site specific parameters	Table 2.0-201
2.11	Hydrostatic loads on systems, components and structures	Site Interface	Site specific parameters	Table 2.0-201
2.12	Seismic parameters peak ground acceleration response spectra shear wave velocity	Site Interface	Site specific parameters	Table 2.0-201

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## Table 1.8-203 (Sheet 2 of 6) Summary of FSAR Discussions of AP1000 Plant Interfaces

Item No.	Interface	Interface Type	Matching Interface Item	Section <sup>(a)</sup> or Subsection
2.13	Required bearing capacity of foundation materials	Site Interface	Site specific parameters	Table 2.0-201
3.1	Deleted	N/A	N/A	N/A
3.2	Operating procedures to minimize water hammer	Requirement of AP1000	Combined License applicant procedure	10.3.2.2.1, 10.4.7.2.1
3.3	Site seismic sensor location and "trigger" value	Requirement of AP1000	Onsite implementation	3.7.4.2.1
3.4	Depth of overburden	Requirement of AP1000	Onsite implementation	3.8.5.1, 2.5.4
3.5	Depth of embedment	Requirement of AP1000	Onsite implementation	3.8.5.1, 2.5.4
3.6	Specific depth of waterproofing	Requirement of AP1000	Onsite implementation	2.5.4.1
3.7	Foundation Settlement Monitoring	Requirement of AP1000	Combined License applicant procedure	2.5.4.10.3
3.8	Lateral earth pressure loads	Not an Interface	N/A	N/A
3.9	Preoperational piping vibration test parameters	Not an Interface	N/A	N/A
3.10	Inservice Inspection requirements and locations	Requirement of AP1000	Combined License applicant procedure	3.9.6, 5.2.4, 6.6
3.11	Maintenance of preservice and reference test data for inservice testing of pumps and valves	Requirement of AP1000	Combined License applicant procedure	3.9.6
3.12	Earthquake response procedures	Requirement of AP1000	Combined License applicant procedure	3.7.4.4
5.1	Steam Generator Tube Surveillance Requirements	Requirement of AP1000	Combined License applicant procedure	5.4.2.5
6.1	Inservice Inspection requirements for the containment	Requirement of AP1000	Combined License applicant procedure	6.6

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### PTN SUP 1.8-3

## Table 1.8-203 (Sheet 3 of 6) Summary of FSAR Discussions of AP1000 Plant Interfaces

Item No.	Interface	Interface Type	Matching Interface Item	Section <sup>(a)</sup> or Subsection
6.2	Off site environmental conditions assumed for Main Control Room and control support area habitability design	AP1000 Interface	Site specific parameter	2.2.3, 6.4
7.1	Listing of all design criteria applied to the design of the I&C systems	Not an Interface	N/A	N/A
7.2	Power required for site service water instrumentation	NNS and Not an Interface	N/A	N/A
7.3	Other provisions for site service water instrumentation	NNS and Not an Interface	N/A	N/A
7.4	Post Accident Monitoring System	NNS	Combined License applicant coordination	7.5.5
8.1	Listing of design criteria applied to the design of the offsite power system	NNS	Combined License applicant coordination	8.1.4.3
8.2	Offsite ac requirements:  Steady-state load;  Inrush kVA for motors;  Nominal voltage;  Allowable voltage regulation;  Nominal frequency;  Allowable frequency fluctuation;  Maximum frequency decay rate;  Limiting under frequency value for RCP	NNS	Combined License applicant coordination	8.2.2

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## Table 1.8-203 (Sheet 4 of 6) Summary of FSAR Discussions of AP1000 Plant Interfaces

Item No.	Interface	Interface Type	Matching Interface Item	Section <sup>(a)</sup> or Subsection
8.3	Offsite transmission system analysis:  Loss of AP1000 or largest unit;  Voltage operating range;  Transient stability must be maintained and the RCP bus voltage must remain above the voltage required to maintain the flow assumed in Chapter 15 analyses for a minimum of three (3) seconds following a turbine trip.;  The protective devices controlling the switchyard breakers are set with consideration given to preserving the plant grid connection following a turbine trip.	NNS	Combined License applicant analysis	8.2.2, 8.2.1.2.1
8.4	Listing of design criteria applied to the design of onsite ac power systems	NNS and Not an Interface	N/A	N/A
8.5	Onsite ac requirements	NNS and Not an Interface	N/A	N/A
8.6	Diesel generator room coordination	NNS and Not an Interface	N/A	N/A
8.7	Listing of design criteria applied to the design of onsite dc power systems	Not an Interface	N/A	N/A
8.8	Provisions of dc power systems to accommodate the site service water system	NNS and Not an Interface	N/A	N/A
9.1	Listing of design criteria applied to the design of portions of the site service water within AP1000	NNS and Not an Interface	N/A	N/A
9.2	Integrated heat load to site service water system	NNS and Not an Interface	N/A	N/A
9.3	Plant cooling water systems parameters	NNS and Not an Interface	N/A	N/A
9.4	Plant makeup water quality limits	NNS	Site specific parameter	9.2.11

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## Table 1.8-203 (Sheet 5 of 6) Summary of FSAR Discussions of AP1000 Plant Interfaces

Item No.	Interface	Interface Type	Matching Interface Item	Section <sup>(a)</sup> or Subsection
9.5	Requirements for location and arrangement of raw and sanitary water systems	NNS	Site implementation	9.2.5, 9.2.11
9.6	Ventilation requirements for diesel-generator room	NNS and Not an Interface	N/A	N/A
9.7	Requirements to satisfy fire protection program	AP1000 Interface	Combined License applicant program	9.5.1
11.1	Expected release rates of radioactive material from the Liquid Waste System including:  Location of release points  Effluent temperature  Effluent flow rate  Size and shape of flow orifices	Site Interface	Site specific parameters	11.2
11.2	Expected release rates of radioactive materials from the Gaseous Waste System including:  Location of release points  Height above grade  Height relative to adjacent buildings  Effluent temperature  Effluent flow rate  Effluent velocity  Size and shape of flow orifices	Site Interface	Site specific parameters	11.3
11.3	Expected release rates of radioactive material from the Solid Waste System including:  Location of release points  Material types  Material qualities  Size and shape of material containers	Site Interface	Site specific parameters	11.4.6
11.4	Requirements for offsite sampling and monitoring of effluent concentrations	AP1000 Interface	Combined License applicant program	11.5.3, 11.5.7
12.1	Identification of miscellaneous radioactive sources	AP1000 Interface	Combined License applicant program	12.2.1

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## Table 1.8-203 (Sheet 6 of 6) Summary of FSAR Discussions of AP1000 Plant Interfaces

Item No.	Interface	Interface Type	Matching Interface Item	Section <sup>(a)</sup> or Subsection
13.1	Features that may affect plans for coping with emergencies as specified in 10 CFR 50, Appendix O	AP1000 Interface	Combined License applicant program	13.3
13.2	Physical Security Plan consistent with AP1000 plant	AP1000 Interface	Combined License applicant program	13.6
14.1	Identification of special features to be considered in development of the initial test program	Requirement of AP1000	Combined License applicant program	14
14.2	Maintenance of preoperational test data and inservice inspection baseline data	AP1000 Interface	Combined License applicant program	14
16.1	Administrative requirements associated with reliability information maintenance	AP1000 Interface	Combined License applicant program	16
16.2	Administrative requirements associated with the Technical Specifications	Requirement of AP1000	Combined License applicant program	16
16.3	Site and operator related information associated with the Reliability Assurance Program (D-RAP)	Requirement of AP1000	Combined License applicant program	16.2
18.1	Operating staff consistent with Human Factors evaluations	AP1000 Interfaces	Combined License applicant program	18.6
18.2	Operator training consistent with Human Factors evaluations	AP1000 Interface	Combined License applicant program	18.8, 18.10
18.3	Operating Procedures consistent with Human Factors evaluations	AP1000 Interface	Combined License applicant program	18.8, 18.10

<sup>(</sup>a) This table supplements DCD Table 1.8-1 by providing additional information in the Section or Subsection column.

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#### 1.9 COMPLIANCE WITH REGULATORY CRITERIA

This section of the referenced DCD is incorporated by reference with the following departures and/or supplements.

#### 1.9.1 REGULATORY GUIDES

Add the following paragraphs to the end of DCD Subsection 1.9.1:

Divisions 2, 3, 6, 7, 9, and 10 of the regulatory guides do not apply to the construction or operational safety considerations and are not addressed in the FSAR.

Division 4 of the regulatory guides applies to the Environmental Report and the topics are addressed in the Environmental Report. Two Division 4 Regulatory Guides are addressed in Appendix 1AA.

Division 5 of the regulatory guides applies to the Physical Security Plan and the topics are addressed in the Physical Security Plan. Three Division 5 Regulatory Guides are addressed in Appendix 1AA.

Applicable Division 8 Regulatory Guides are addressed in Appendix 1AA.

Appendix 1AA provides a discussion of plant specific regulatory guide conformance, addressing new Regulatory Guides and new revisions not addressed by the referenced DCD. Regulatory Guides that are completely addressed by the DCD are not listed.

The following subsections provide a summary discussion of Divisions 1, 4, 5 and 8 of the regulatory guides as applicable to the content of this FSAR, or to the construction and/or operations phases.

#### 1.9.1.1 Division 1 Regulatory Guides — Power Reactors

Add the following paragraphs to the end of DCD Subsection 1.9.1.1:

Appendix 1AA provides an evaluation of the degree of compliance with Division 1 regulatory guides as applicable to the content of this FSAR, or to the site-specific design, construction and/or operational aspects. The revisions of the regulatory

guides against which the degree of compliance is evaluated are indicated. Any exceptions or alternatives to the provisions of the regulatory guides are identified and justification is provided. One such general alternative is the use of previous revisions of the Regulatory Guide for design aspects as stated in the DCD in order to preserve the finality of the certified design (see Notes at the end of Appendix 1AA). Table 1.9-201 identifies the appropriate regulatory guide to FSAR cross-references. The cross-referenced sections contain descriptive information applicable to the regulatory guide positions found in Appendix 1AA.

Superseded or canceled regulatory guides are not considered in Appendix 1AA or Table 1.9-201.

1.9.1.2 Division 4 Regulatory Guides — Environmental and Siting

Add the following as the first paragraph in DCD Subsection 1.9.1.2:

STD COL 1.9-1

Division 4 of the regulatory guides applies to the Environmental Report and the topics are addressed in the Environmental Report. Appendix 1AA provides an evaluation of the degree of compliance with Division 4 regulatory guides as applicable to the content of this FSAR, or to the site-specific design, construction and/or operational aspects. The revisions of the regulatory guides against which the plant is evaluated are indicated. Any exceptions or alternatives to the provisions of the regulatory guides are identified and justification is provided. One such general alternative is the use of previous revisions of the Regulatory Guide for design aspects as stated in the DCD in order to preserve the finality of the certified design (see Notes at the end of Appendix 1AA). For those regulatory guides applicable, Table 1.9-201 identifies the appropriate FSAR cross-references. The cross-referenced sections contain descriptive information applicable to the regulatory guide positions found in Appendix 1AA.

1.9.1.3 Division 5 Regulatory Guides — Materials and Plant Protection

Add the following as the first paragraph in DCD Subsection 1.9.1.3:

Division 5 of the regulatory guides applies to the Physical Security Plan and the topics are addressed in the Physical Security Plan. Appendix 1AA provides an

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evaluation of the degree of compliance with Division 5 regulatory guides as applicable to the content of this FSAR, or to the site-specific design, construction and/or operational aspects. The revisions of the regulatory guides against which the plant is evaluated are indicated. Any exceptions or alternatives to the provisions of the regulatory guides are identified and justification is provided. One such general alternative is the use of previous revisions of the Regulatory Guide for design aspects as stated in the DCD in order to preserve the finality of the certified design (see Notes at the end of Appendix 1AA). The cross-referenced sections contain descriptive information applicable to the regulatory guide positions found in Appendix 1AA.

1.9.1.4 Division 8 Regulatory Guides — Occupational Health

Add the following paragraphs to the end of DCD Subsection 1.9.1.4:

STD COL 1.9-1

Appendix 1AA provides an evaluation of the degree of compliance with Division 8 regulatory guides as applicable to the content of this FSAR, or to the site-specific design, construction and/or operational aspects. The revisions of the regulatory guides against which the plant is evaluated are indicated. Any exceptions or alternatives to the provisions of the regulatory guides are identified and justification is provided. One such general alternative is the use of previous revisions of the Regulatory Guide for design aspects as stated in the DCD in order to preserve the finality of the certified design (see Notes at the end of Appendix 1AA). For those regulatory guides applicable, Table 1.9-201 identifies the appropriate FSAR cross-references. The cross-referenced sections contain descriptive information applicable to the regulatory guide positions found in Appendix 1AA.

Superseded or canceled regulatory guides are not considered in Appendix 1AA or Table 1.9-201.

1.9.1.5 Combined License Information

Add the following as the first paragraph in DCD Subsection 1.9.1.5:

1.9 - 3

STD COL 1.9-1

Division 1, 4, 5 and 8 Regulatory Guides applicable to the content of this FSAR, or to the site-specific design, construction and/or operational aspects are listed in Table 1.9-201 and Appendix 1AA.

#### 1.9.2 COMPLIANCE WITH STANDARD REVIEW PLAN (NUREG-0800)

Add the following paragraph to the end of DCD Subsection 1.9.2:

Table 1.9-202 provides the required assessment of conformance with the applicable acceptance criteria and the associated FSAR cross-references.

The design related SRP acceptance criteria addressed by the certified design are identified as such in Table 1.9-202.

1.9.4.1 Review of NRC List of Unresolved Safety Issues and Generic Safety Issues

Add the following paragraphs to the end of DCD Subsection 1.9.4.1:

STD COL 1.9-3

Table 1.9-203 addresses the second un-numbered COL Information Item identified at the end of DCD Table 1.8-2 and listed in Table 1.8-202 as COL Information Item 1.9-3, "Unresolved Safety Issues and Generic Safety Issues." As such, Table 1.9-203 lists those issues on DCD Table 1.9-2 identified by Note "d," which apply to other than design issues, Note "f," which apply either to resolution of Combined License (COL) Information Items or to nuclear power plant operations issues, Note "h," which apply to issues unresolved pending generic resolution at the time of submittal of the AP1000 DCD, and any new Unresolved Safety Issues and Generic Safety Issues that have been included in NUREG-0933 (through Supplement 30) since the DCD was developed. Many of these have since been resolved and incorporated into the applicable licensing regulations or guidance (e.g., the standard review plans). These resolved items (as indicated by NUREG-0933) are identified only as "Resolved per NUREG-0933." Many others are not in the list of items in NUREG-0933 Appendix B identified as applicable to new plants. These items are identified only as "Not applicable to new plants." For the remaining items, the table provides the FSAR sections that address the topic.

#### 1.9.4.2.3 New Generic Issues

Add the following text in DCD Subsection 1.9.4.2.3, following the AP1000 Position for Issue 185.

STD COL 1.9-3

Issue 186 Potential Risk and Consequences of Heavy Load Drops in Nuclear Power Plants

#### Discussion:

This issue concerns licensees operating within the regulatory guidelines of Generic Letter 85-11 that may not have taken adequate measures to assess and mitigate the consequences of dropped heavy loads.

#### **FSAR** Position:

There are no planned heavy load lifts outside those already described in the DCD. However, over the plant life there may be occasions when heavy loads not presently addressed need to be lifted (i.e. in support of special maintenance/repairs). For these occasions, special procedures are generated that address to the activity. Further discussion is provided in Subsection 9.1.5.3.

Issue 189 Susceptibility of Ice Condenser and Mark III Containments to Early Failure From Hydrogen Combustion During a Severe Accident Description

#### Discussion:

This issue concerns the early containment failure probability for ice condenser and BWR MARK III containments given the relatively low containment free volume and low containment strength in these designs.

#### **FSAR** Position:

The AP1000 design does not have an ice condenser containment or a Mark III containment. Therefore, this issue is not addressed in this FSAR.

Add the following text in DCD Subsection 1.9.4.2.3, following the AP1000 Position for Issue 191.

STD COL 1.9-3 Issue 191 Assessment of Debris Accumulation on PWR Sump Performance (REV. 1)

Discussion:

Results of research on BWR ECCS suction strainer blockage identified new phenomena and failure modes that were not considered in the resolution of Issue A-43. In addition, operating experience identified new contributors to debris and possible blockage of PWR sumps, such as degraded or failed containment paint coatings.

#### **FSAR** Position:

The design aspects of this issue are addressed by the DCD. The protective coatings program controls the procurement, application, inspection, and monitoring of Service Level I and Service Level III coatings with the quality assurance features discussed above. The protective coatings program complies with Regulatory Guide 1.54, and is controlled and implemented by administrative procedures. The program is discussed in Subsection 6.1.2.1.6.

Administrative procedures implement the containment cleanliness program. Implementation of the program minimizes the amount of debris that might be left in containment following refueling and maintenance outages. The program is consistent with the containment cleanliness program used in the evaluation discussed in DCD Subsection 6.3.8.2. The program is discussed in Subsection 6.3.8.1.

Issue 196 Boral Degradation

Discussion:

The issue specifically addresses the use of Boral in long-term dry storage casks for spent reactor fuel.

#### **FSAR** Position:

Long-term dry storage casks for spent reactor fuel are not used and therefore this issue is not addressed in this FSAR.

#### 1.9.5.1.5 Station Blackout

Add the following text to the end of DCD Subsection 1.9.5.1.5.

STD SUP 1.9-3

Training and procedures to mitigate a 10 CFR 50.63 "loss of all alternating current power" (or station blackout (SBO)) event are implemented in accordance with Sections 13.2 and 13.5, respectively. As recommended by NUMARC 87-00 (Reference 201), the SBO event mitigation procedures address response (e.g., restoration of onsite power sources), ac power restoration (e.g., coordination with transmission system load dispatcher), and severe weather guidance (e.g., identification of actions to prepare for the onset of severe weather such as an impending tornado), as applicable. The AP1000 is a passive design and does not rely on offsite or onsite ac sources of power for at least 72 hours after an SBO event, as described above.

Restoration from an SBO event will be contingent upon ac power being made available from any one of the transmission lines described in Section 8.2 or any one of the standby diesel generators.

1.9.5.2.15 Severe Accident Mitigation Design Alternatives

Add the following text to the end of DCD Subsection 1.9.5.2.15.

#### STD SUP 1.9-2 FSAR Position:

The severe accident mitigation design alternatives (SAMDA) evaluation for AP1000 contained in DCD Appendix 1B is not incorporated into this FSAR, but is addressed in the COL application Environmental Report.

#### 1.9.5.5 Operational Experience

Add the following paragraph to the end of DCD Subsection 1.9.5.5.

STD COL 1.9-2

Table 1.9-204 lists the Bulletins and Generic Letters addressed by topical discussion in this FSAR. Table 1.9-204 also lists Bulletins and Generic Letters categorized as part of the first un-numbered COL Information Item identified at the end of DCD Table 1.8-2 and listed in Table 1.8-202 as COL Information Item 1.9-2. Table 1.9-204 provides the appropriate FSAR cross-references for the discussion of the topics addressed by those Bulletins and Generic Letters. Bulletins or Generic Letters issued after those listed in the DCD are also included in Table 1.9-204. Issues identified as "procurement" or "maintenance" or "surveillance" in WCAP-15800 are addressed as part of the scope of the certified design and are not specifically identified in Table 1.9-204. Issues identified as "procedural" in WCAP-15800 are addressed by the procedures discussed in DCD Section 13.5 and are not specifically identified in Table 1.9-204. Other items in WCAP-15800, including the Circulars and Information Notices, are considered to have been adequately addressed based on the guidance identified in Regulatory Guide 1.206 and the NRC Standard Review Plans.

#### 1.9.6 REFERENCES

Add the following text to the end of DCD Subsection 1.9.6.

201. NUMARC 87-00, Guidelines and Technical Bases for NUMARC Initiatives Addressing Station Blackout at Light Water Reactors, Revision 1, August 1991.

## Table 1.9-201 (Sheet 1 of 10) Regulatory Guide/FSAR Section Cross-References

		Regulatory Guides	FSAR Chapter, Section, or Subsection <sup>(a)</sup>
STD COL 1.9-1	Division	1 Regulatory Guides	
	1.6	Independence Between Redundant Standby (Onsite) Power Sources and Between Their Distribution Systems (Rev. 0, March 1971)	16 (TS Bases 3.8.1)
	1.7	Control of Combustible Gas Concentrations in Containment (Rev. 3, March 2007)	DCD discussion only; see DCD Table 1.9-1
PTN COL 1.9-1	1.8	Qualification and Training of Personnel for Nuclear Power Plants (Rev. 3, May 2000)	12.1 (NEI 07-08A) Appendix 12AA Appendix 12AA (NEI 07-03A) 13.1.1.4 13.1.3.1 13.2 (NEI 06-13A) 16 (TS 5.3.1) 17.5 (QAPD, IV)
STD COL 1.9-1	1.12	Nuclear Power Plant Instrumentation for Earthquakes (Rev. 2, March 1997)	3.7.4.1
	1.13	Spent Fuel Storage Facility Design Basis (Rev. 2, March 2007)	16 (TS Bases 3.7.11) 16 (TS Bases 3.7.12)
	1.20	Comprehensive Vibration Assessment Program for Reactor Internals During Preoperational and Initial Startup Testing (Rev. 3, March 2007)	DCD discussion only; see DCD Table 1.9-1
PTN COL 1.9-1	1.21	Measuring, Evaluating, and Reporting Radioactivity in Solid Wastes and Releases of Radioactive Materials in Liquid and Gaseous Effluents From Light-Water-Cooled Nuclear Power Plants (Rev.1, June 1974)	2.3.3.1 11.5.1.2 11.5.4.1 11.5.4.2 12.3.4
	1.23	Meteorological Monitoring Programs for Nuclear Power Plants (Rev. 1, March 2007)	2.3.2.1 2.3.3 2.3.3.1 2.3.4.1
STD COL 1.9-1	1.26	Quality Group Classifications and Standards for Water-, Steam-, and Radioactive-Waste-Containing Components of Nuclear Power Plants (Rev. 4, March 2007)	5.2.4.1 17.5 (QAPD IV)
	1.27	Ultimate Heat Sink for Nuclear Power Plants (Rev. 2, January 1976)	2.4.11.6
PTN COL 1.9-1	1.28	Quality Assurance Program Requirements (Design and Construction) (Rev. 3, August 1985)	17.1 17.5 (QAPD, II, 17.1) 17.5 (QAPD, IV)
STD COL 1.9-1	1.29	Seismic Design Classification (Rev. 4, March 2007)	17.5 (QAPD IV)
	1.30	Quality Assurance Requirements for the Installation, Inspection, and Testing of Instrumentation and Electric Equipment (Rev. 0, August 1972)	Not referenced; see Appendix 1AA
	1.31	Control of Ferrite Content in Stainless Steel Weld Metal (Rev. 3, April 1978)	6.1.1.2

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# Table 1.9-201 (Sheet 2 of 10) Regulatory Guide/FSAR Section Cross-References

		Regulatory Guides	FSAR Chapter, Section, or Subsection <sup>(a)</sup>	
STD COL 1.9-1	1.32	Criteria for Power Systems for Nuclear Power Plants (Rev. 3, March 2004)	16 (TS Bases 3.8.1)	
PTN COL 1.9-1	1.33	Quality Assurance Program Requirements (Operation) 16 (TS 5.4.1) (Rev. 2, February 1978) 12.1 (NEI 07-08A) 17.5 (QAPD, IV)		
STD COL 1.9-1	1.37	Quality Assurance Requirements for Cleaning of Fluid Systems and Associated Components of Water- Cooled Nuclear Power Plants (Rev. 1, March 2007)	17.5 (QAPD IV) 17.5 (QAPD, II, 13.2)	
	1.38	Quality Assurance Requirements for Packaging, Shipping, Receiving, Storage and Handling of Items for Water- Cooled Nuclear Power Plants (Rev. 2, May 1977)	DCD discussion only; see DCD Table 1.9-1	
	1.39	Housekeeping Requirements for Water- Cooled Nuclear Power Plants (Rev. 2, September 1977)	DCD discussion only; see DCD Table 1.9-1	
	1.44	Control of the Use of Sensitized Stainless Steel (Rev. 0, May 1973)	6.1.1.2	
	1.45	Reactor Coolant Pressure Boundary Leakage Detection Systems (Rev. 0, May 1973)	16 (TS Bases 3.4.7) 16 (TS Bases 3.4.9)	
	1.52	Design, Inspection and Testing Criteria for Air Filtration and Adsorption Units of Post-Accident Engineered-Safety-Feature Atmosphere Cleanup Systems in Light-Water-Cooled Nuclear Power Plants (Rev. 3, June 2001)	16 (TS 3.7.6)	
	1.53	Application of the Single-Failure Criterion to Safety Systems (Rev. 2, November 2003)	DCD discussion only; see DCD Table 1.9-1	
	1.54	Service Level I, II, and III Protective Coatings Applied to Nuclear Power Plants (Rev. 1, July 2000)	1.9.4.2.3 6.1.2.1.6	
	1.57	Design Limits and Loading Combinations for Metal Primary Reactor Containment System Components (Rev. 1, March 2007)	DCD discussion only; see DCD Table 1.9-1	
PTN COL 1.9-1	1.59	Design Basis Floods for Nuclear Power Plants (Rev. 2, August 1977)	2.4.5.2.2 2.4.6.5	
	1.60	Design Response Spectra for Seismic Design of Nuclear Power Plants (Rev. 1, December 1973)	2.5.2.6.2 Table 2.0-201 Appendix 3JJ.2	
STD COL 1.9-1	1.61	Damping Values for Seismic Design of Nuclear Power Plants (Rev. 1, March 2007)	DCD discussion only; see DCD Table 1.9-1	
	1.68	Initial Test Program for Water-Cooled Nuclear Power Plants (Rev. 3, March 2007)	14.2.1 14.2.3 14.2.8 14.2.5.2 16 (TS Bases 3.1.8)	
PTN COL 1.9-1	1.70	Standard Format and Content of Safety Analysis Reports for Nuclear Power Plants (LWR Edition) (Rev. 3, November 1978)	1.1.6.1 2.2.2.7	
STD COL 1.9-1	1.71	Welder Qualification for Areas of Limited Accessibility (Rev 1, March 2007)	DCD discussion only; see DCD Table 1.9-1	
	1.75	Criteria for Independence of Electrical Safety Systems (Rev 3, February 2005)	DCD discussion only; see DCD Table 1.9-1	

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# Table 1.9-201 (Sheet 3 of 10) Regulatory Guide/FSAR Section Cross-References

		Regulatory Guides	FSAR Chapter, Section, or Subsection <sup>(a)</sup>
PTN COL 1.9-1	1.76	Design-Basis Tornado and Tornado Missiles for	Table 2.0-201
		Nuclear Power Plants (Rev. 1, March 2007)	2.3.1.3.2
STD COL 1.9-1	1.77	Assumptions Used for Evaluating a Control Rod	16 (TS Bases 3.2.1)
		Ejection Accident for Pressurized Water Reactors (Rev 0, May 1974)	16 (TS Bases 3.2.2) 16 (TS Bases 3.2.4)
		(1.67 6, 1.1d)	16 (TS Bases 3.2.5)
PTN COL 1.9-1	1.78	Evaluating the Habitability of a Nuclear Power Plant	2.2.3
		Control Room During a Postulated Hazardous	2.2.3.1.3
		Chemical Release (Rev. 1, December 2001)	2.3.4.4 6.4.3
			6.4.4.2
			16 (TS Bases 3.7.6)
STD COL 1.9-1	1.82	Water Sources for Long-Term Recirculation Cooling	DCD discussion only;
		Following a Loss-of-Coolant Accident (Rev. 3, November 2003)	see DCD Table 1.9-1
	1.83	Inservice Inspection of Pressurized Water Reactor	DCD discussion only;
		Steam Generator Tubes (Rev. 1, July 1975)	see DCD Table 1.9-1
	1.84	Design, Fabrication, and Materials Code Case Acceptability, ASME Section III (Rev. 33, August 2005)	DCD discussion only; see DCD Table 1.9-1
	1.86	Termination of Operating Licenses for Nuclear Reactors (Rev. 0, June 1974)	Not referenced; see Appendix 1AA
PTN COL 1.9-1	1.91	Evaluations of Explosions Postulated To Occur on	2.2.1
		Transportation Routes Near Nuclear Power Plants	2.2.3
		(Rev. 1, February 1978)	2.2.3.1.1 3.5.1.5
STD COL 1.9-1	1.92	Combining Modal Responses and Spatial	DCD discussion only;
		Components in Seismic Response Analysis (Rev. 2, July 2006)	see DCD Table 1.9-1
	1.93	Availability of Electric Power Sources (Rev. 0, December 1974)	16 (TS Bases 3.8.1) 16 (TS Bases 3.8.5)
	1.94	Quality Assurance Requirements for Installation, Inspection and Testing of Structural Concrete and Structural Steel During the Construction Phase of Nuclear Power Plants (Rev. 1, April 1976)	Not referenced; see Appendix 1AA
	1.97	Criteria For Accident Monitoring Instrumentation For Nuclear Power Plants (Rev. 4, June 2006)	Not referenced; see Appendix 1AA
	1.97	Instrumentation for Light-Water-Cooled Nuclear	Table 7.5-201
		Power Plants to Assess Plant Environs Conditions	Appendix 12AA
	4.55	During and Following an Accident (Rev. 3, May 1983)	16 (TS Bases 3.3.3)
	1.99	Radiation Embrittlement of Reactor Vessel Materials (Rev. 2, May 1988)	16 (TS Bases 3.4.3)
	1.101	Emergency Response Planning and Preparedness for Nuclear Power Reactors (Rev. 5, June 2005)	Not referenced; see Appendix 1AA
	1.101	Emergency Planning and Preparedness for Nuclear Power Reactors (Rev. 4, July 2003)	Not referenced; see Appendix 1AA
PTN COL 1.9-1	1.101	Emergency Planning and Preparedness for Nuclear	9.5.1.8.2.2
		Power Reactors (Rev. 3, August 1992)	Table 9.5-201
			13.3 (Emergency Plan App I)

# Table 1.9-201 (Sheet 4 of 10) Regulatory Guide/FSAR Section Cross-References

		Regulatory Guides	FSAR Chapter, Section, or Subsection <sup>(a)</sup>
PTN COL 1.9-1	1.109	Calculation of Annual Doses to Man from Routine Releases of Reactor Effluents for the Purpose of Evaluating Compliance with 10 CFR Part 50, Appendix I (Rev. 1, October 1977)	11.3.3.4 11.3.3.4.1 12.4.1.9.3
	1.110	Cost-Benefit Analysis for Radwaste Systems for Light-Water-Cooled Nuclear Power Reactors (Draft Rev. 0, March 1976)	11.2.3.5 11.3.3.4.3 11.3.3.4.4
	1.111	Methods for Estimating Atmospheric Transport and Dispersion of Gaseous Effluents in Routine Releases from Light-Water-Cooled Reactors (Rev. 1, July 1977)	2.3.3.1.8 2.3.4.2 2.3.5.1
STD COL 1.9-1	1.112	Calculation of Releases of Radioactive Materials in Gaseous or Liquid Effluents from Light-Water-Cooled Nuclear Power Reactors (Rev. 1, March 2007)	DCD discussion only; see DCD Table 1.9-1
PTN COL 1.9-1	1.113	Estimating Aquatic Dispersion of Effluents from Accidental and Routine Reactor Releases for the Purpose of Implementing Appendix I (Rev. 1, April 1977)	Not referenced; see Appendix 1AA
	1.114	Guidance to Operators at the Controls and to Senior Operators in the Control Room of a Nuclear Power Unit (Rev. 3, October 2008)	13.1.2.1.3.6 13.1.2.1.4
STD COL 1.9-1	1.115	Protection Against Low-Trajectory Turbine Missiles (Rev. 1, July 1977)	3.5.1.3
	1.116	Quality Assurance Requirements for Installation, Inspection, and Testing of Mechanical Equipment and Systems (Rev. 0-R, May 1977)	Not referenced; see Appendix 1AA
	1.121	Bases for Plugging Degraded PWR Steam Generator Tubes (Rev. 0, August 1976)	16 (TS Bases 3.4.18)
	1.124	Service Limits and Loading Combinations for Class 1 Linear-Type Supports (Rev. 2, February 2007)	DCD discussion only; see DCD Table 1.9-1
	1.128	Installation Design and Installation of Vented Lead- Acid Storage Batteries for Nuclear Power Plants (Rev. 2, February 2007)	DCD discussion only; see DCD Table 1.9-1
	1.129	Maintenance, Testing, and Replacement of Vented Lead-Acid Storage Batteries for Nuclear Power Plants (Rev. 2, February 2007)	Table 8.1-201 8.3.2.1.4 16 (TS Bases 3.8.1)
	1.130	Service Limits and Loading Combinations for Class 1 Plate-And-Shell-Type Supports (Rev. 2, March 2007)	DCD discussion only; see DCD Table 1.9-1
PTN COL 1.9-1	1.132	Site Investigations for Foundations of Nuclear Power Plants (Rev. 2, October 2003)	2.5.4.2.2 2.5.4.10.1
STD COL 1.9-1	1.133	Loose-Part Detection Program for the Primary System of Light-Water-Cooled Reactors (Rev. 1, May 1981)	Not referenced; see Appendix 1AA
	1.134	Medical Evaluation of Licensed Personnel at Nuclear Power Plants (Rev. 3, March 1998)	Not referenced; see Appendix 1AA
	1.135	Normal Water Level and Discharge at Nuclear Power Plants (Rev. 0, September 1977)	DCD discussion only; see DCD Table 1.9-1
PTN COL 1.9-1	1.138	Laboratory Investigations of Soils and Rocks for Engineering Analysis and Design of Nuclear Power Plants (Rev. 2, December 2003)	2.5.4.2.2

# Table 1.9-201 (Sheet 5 of 10) Regulatory Guide/FSAR Section Cross-References

		Regulatory Guides	FSAR Chapter, Section, or Subsection <sup>(a)</sup>
STD COL 1.9-1	1.139	Guidance for Residual Heat Removal (Rev. 0, May 1978)	DCD discussion only; see DCD Table 1.9-1
	1.140	Design, Inspection, and Testing Criteria for Air Filtration and Adsorption Units of Normal Atmosphere Cleanup Systems in Light-Water-Cooled Nuclear Power Plants (Rev. 2, June 2001)	9.4.1.4 9.4.7.4 16 (TS Bases 3.9.6)
	1.143	Design Guidance for Radioactive Waste Management Systems, Structures, and Components Installed in Light-Water-Cooled Nuclear Power Plants (Rev. 2, November 2001)	11.2.1.2.5.2 11.2.3.6 11.3.3.6 11.4.5 11.4.6.2
PTN COL 1.9-1	1.145	Atmospheric Dispersion Models for Potential Accident Consequence Assessments at Nuclear Power Plants (Rev. 1, November 1982)	2.3.4.2 2.3.5.1
STD COL 1.9-1	1.147	Inservice Inspection Code Case Acceptability, ASME section XI, Division 1 (Rev. 15, October 2007)	5.2.4 6.6
	1.149	Nuclear Power Plant Simulation Facilities for Use in Operator Training and License Examinations (Rev. 3, October 2001)	13.2 (NEI 06-13A)
	1.150	Ultrasonic Testing of Reactor Vessel Welds During Preservice and Inservice Examinations (Rev. 1, February 1983)	DCD discussion only; see DCD Table 1.9-1
	1.152	Criteria for Use of Computers in Safety Systems of Nuclear Power Plants (Rev. 2, January 2006)	Not referenced; see Appendix 1AA
	1.154	Format and Content of Plant-Specific Pressurized Thermal Shock Safety Analysis Reports for Pressurized Water Reactors (Rev. 0, January 1987)	Not referenced; see Appendix 1AA
PTN COL 1.9-1	1.155	Station Blackout (Rev. 0, August 1998)	Table 8.1-201 17.5 (QAPD III.2)
STD COL 1.9-1	1.159	Assuring the Availability of Funds for Decommissioning Nuclear Reactors (Rev. 1, October 2003)	Not referenced; see Appendix 1AA
	1.160	Monitoring the Effectiveness of Maintenance at Nuclear Power Plants (Rev. 2, March 1997)	17.6 (NEI 07-02A)
	1.162	Format and Content of Report for Thermal Annealing of Reactor Pressure Vessels (Rev. 0, February 1996)	Not referenced; see Appendix 1AA
	1.163	Performance-Based Containment Leak-Test Program (Rev. 0, September 1995)	6.2.5.1 6.2.5.2.2 16 (TS 5.5.8)
PTN COL 1.9-1	1.165	Identification and Characterization of Seismic Sources and Determination of Safe Shutdown Earthquake Ground Motion (Rev. 0, March 1997)	2.5.3
STD COL 1.9-1	1.166	Pre-Earthquake Planning and Immediate Nuclear Power Plant Operator Post Earthquake Actions (Rev. 0, March 1997)	3.7.4.4
	1.167	Restart of a Nuclear Power Plant Shut Down by a Seismic Event (Rev. 0, March 1997)	3.7.4.4

# Table 1.9-201 (Sheet 6 of 10) Regulatory Guide/FSAR Section Cross-References

		Regulatory Guides	FSAR Chapter, Section, or Subsection <sup>(a)</sup>
STD COL 1.9-1	1.168	Verification, Validation, Reviews, and Audits for Digital Computer Software Used in Safety Systems of Nuclear Power Plants (Rev. 1, February 2004)	DCD discussion only; see DCD Table 1.9-1
	1.174	An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis (Rev. 1, November 2002)	Not referenced; see Appendix 1AA
	1.175	An Approach for Plant-Specific, Risk- Informed Decisionmaking: Inservice Testing (Rev. 0, August 1998)	Not referenced; see Appendix 1AA
	1.177	An Approach for Plant-Specific, Risk- Informed Decisionmaking: Technical Specifications (Rev. 0, August 1998)	16 (TS Bases 3.5.1) 16 (TS Bases 3.7.10)
	1.178	An Approach for Plant-Specific Risk- Informed Decisionmaking for Inservice Inspection of Piping (Rev. 1, September 2003)	Not referenced; see Appendix 1AA
	1.179	Standard Format and Content of License Termination Plans for Nuclear Power Reactors (Rev. 0, January 1999)	Not referenced; see Appendix 1AA
	1.180	Guidelines for Evaluating Electromagnetic and Radio-Frequency Interference in Safety-Related Instrumentation and Control Systems (Rev. 1, October 2003)	DCD discussion only; see DCD Table 1.9-1
	1.181	Content of Updated Final Safety Analysis Report in Accordance with 10 CFR 50.71(e) (Rev. 0, September 1999)	Not referenced; see Appendix 1AA
	1.182	Assessing and Managing Risk Before Maintenance Activities at Nuclear Power Plants (Rev. 0, May 2000)	16 (TS Bases SR 3.0.3) 17.6 (NEI 07-02A)
	1.183	Alternative Radiological Source Terms for Evaluating Design Basis Accidents at Nuclear Power Reactors (Rev. 0, July 2000)	16 (TS Bases 3.7.5) 16 (TS Bases 3.9.4) 16 (TS Bases 3.9.7)
	1.184	Decommissioning of Nuclear Power Reactors (Rev. 0, July 2000)	Not referenced; see Appendix 1AA
	1.185	Standard Format and Content for Post- shutdown Decommissioning Activities Report (Rev. 0, July 2000)	Not referenced; see Appendix 1AA
	1.186	Guidance and Examples for Identifying 10 CFR 50.2 Design Bases (Rev. 0, December 2000)	Not referenced; see Appendix 1AA
	1.187	Guidance for Implementation of 10 CFR 50.59, Changes, Tests, and Experiment (Rev. 0, November 2000)	Not referenced; see Appendix 1AA
	1.188	Standard Format and Content for Applications To Renew Nuclear Power Plant Operating Licenses (Rev. 1, September 2005)	Not referenced; see Appendix 1AA
PTN COL 1.9-1	1.189	Fire Protection for Nuclear Power Plants (Rev. 1, March 2007)	9.5.1.8.1.1 9.5.1.8.2.2 13.1.2.1.3.9 17.5 (QAPD III.2)
STD COL 1.9-1	1.191	Fire Protection Program for Nuclear Power Plants During Decommissioning and Permanent Shutdown (Rev. 0, May 2001)	Not referenced; see Appendix 1AA

# Table 1.9-201 (Sheet 7 of 10) Regulatory Guide/FSAR Section Cross-References

		Regulatory Guides	FSAR Chapter, Section, or Subsection <sup>(a)</sup>
STD COL 1.9-1	1.192	Operation and Maintenance Code Case Acceptability, ASME OM Code (Rev. 0, June 2003)	3.9.6.3
	1.193	ASME Code Cases Not Approved for Use (Rev 1, August 2005)	Not referenced; see Appendix 1AA
	1.194	Atmospheric Relative Concentrations for Control Room Radiological Habitability Assessments at Nuclear Power Plants (Rev. 0, June 2003)	2.3.4.3
	1.195	Methods and Assumptions for Evaluating Radiological Consequences of Design Basis Accidents at Light-Water Nuclear Power Reactors (Rev. 0, May 2003)	Not referenced; see Appendix 1AA
	1.196	Control Room Habitability at Light-Water Nuclear Power Reactors (Rev. 1, January 2007)	6.4.3
	1.197	Demonstrating Control Room Envelope Integrity at Nuclear Power Reactors (Rev. 0, May 2003)	DCD discussion only; see DCD Table 1.9-1
PTN COL 1.9-1	1.198	Procedures and Criteria for Assessing Seismic Soil Liquefaction at Nuclear Power Plant Sites (Rev. 0, November 2003)	2.5.4.8 2.5.4.1.1
STD COL 1.9-1	1.199	Anchoring Components and Structural Supports in	Not referenced;
		Concrete (Rev. 0, November 2003)	see Appendix 1AA
	1.200	An Approach for Determining the Technical Adequacy of Probabilistic Risk Assessment Results for Risk-Informed Activities (Rev. 1, January 2007)	19.59.10.6
	1.201	Guidelines for Categorizing Structures, Systems, and Components in Nuclear Power Plants According to Their Safety Significance (Rev. 1, May 2006)	Not referenced; see Appendix 1AA
	1.202	Standard Format and Content of Decommissioning Cost Estimates for Nuclear Power Reactors (Rev. 0, February 2005)	Not referenced; see Appendix 1AA
	1.203	Transient and Accident Analysis Methods (Rev. 0, December 2005)	Not referenced; see Appendix 1AA
	1.204	Guidelines for Lightning Protection of Nuclear Power Plants (Rev. 0, November 2005)	Table 8.1-201
	1.205	Risk-Informed, Performance-Based Fire Protection for Existing Light-Water Nuclear Power Plants (Rev. 0, May 2006)	Not referenced; see Appendix 1AA

# Table 1.9-201 (Sheet 8 of 10) Regulatory Guide/FSAR Section Cross-References

		Regulatory Guides	FSAR Chapter, Section, or Subsection <sup>(a)</sup>
PTN COL 1.9-1	1.206	Combined License Applications for Nuclear Power Plants (LWR Edition) (Rev. 0, June 2007)	See Appendix 1AA  1.1.6.1  1.9.5.5  2.1  2.1.3.6  2.2  2.2.1  2.2.2  2.2.1  2.2.2  2.2.7  2.2.3  2.2.3.1  2.2.3.1.4  2.3.5.1  2.4  2.5  2.5.0.1  2.5.1  2.5.2.1.2  2.5.4  2.5.5  3.5.1.6  Table 8.1-201  12.1 (NEI 07-08A)  Appendix 12AA (NEI 07-03A)  14.3.2.3.1  14.3.2.3.2  17.6 (NEI 07-02A)
STD COL 1.9-1	1.207	Guidelines for Evaluating Fatigue Analyses Incorporating the Life Reduction of Metal Components Due to the Effects of the Light-Water Reactor Environment for New Reactors (Rev. 0, March 2007)	Not referenced; see Appendix 1AA
PTN COL 1.9-1	1.208	A Performance-Based Approach to Define the Site-Specific Earthquake Ground Motion (Rev. 0, March 2007)	2.0 2.5 2.5.1 2.5.2 2.5.3 3.7.1.1.1 Appendix 3JJ.2
	1.209	Guidelines for Environmental Qualification of Safety-Related Computer-Based Instrumentation and Control Systems in Nuclear Power Plants (Rev. 0, March 2007)	11.2.3.5
	1.210	Qualification of Safety-Related Battery Chargers and Inverters for Nuclear Power Plants (Rev. 0, June 2008)	Not referenced; see Appendix 1AA
	1.212	Sizing of Large Lead-Acid Storage Batteries (Rev. 0, November 2008)	Not referenced; see Appendix 1AA

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# Table 1.9-201 (Sheet 9 of 10) Regulatory Guide/FSAR Section Cross-References

		Regulatory Guides	FSAR Chapter, Section, or Subsection <sup>(a)</sup>
	Division	1 4 Regulatory Guides	
PTN COL 1.9-1	4.7	General Site Suitability Criteria for Nuclear Power Stations (Rev. 2, April 1998)	2.1.3.6 2.2.1 2.2.2.7 2.2.3
	4.15	Quality Assurance for Radiological Monitoring Programs (Inception through Normal Operations to License Termination) - Effluent Streams and the Environment (Rev. 2, July 2007)	11.5.1.2 11.5.3 11.5.4 11.5.6.5
	4.21	Minimization of Contamination and Radioactive Waste Generation: Life-Cycle Planning (Rev. 0, June 2008)	2.4.12.4
	Division	1 5 Regulatory Guides	
STD COL 1.9-1	5.9	Guidelines for Germanium Spectroscopy Systems for Measurements of Special Nuclear Material (Rev. 2, December 1983)	Not referenced; see Appendix 1AA
	5.12	General Use of Locks in the Protection and Controls of Facilities and Special Nuclear Materials (Rev. 0, November 1973)	Not referenced; see Appendix 1AA
	5.65	Vital Area Access Controls, Protection of Physical Security Equipment, and Key and Lock Controls (Rev. 0, September 1986)	Not referenced; see Appendix 1AA
	Division	n 8 Regulatory Guides	
	8.2	Guide for Administrative Practices in Radiation Monitoring (Rev. 0, February 1973)	12.1 (NEI 07-08A) 12.3.4 Appendix 12AA (NEI 07-03A)
	8.4	Direct-Reading and Indirect-Reading Pocket Dosimeters (Rev. 0, February 1973)	Appendix 12AA (NEI 07-03A)
	8.5	Criticality and Other Interior Evacuation Signals (Rev. 1, March 1981)	Appendix 12AA (NEI 07-03A)
	8.6	Standard Test Procedure for Geiger-Muller Counters (Rev. 0, May 1973)	Appendix 12AA (NEI 07-03A)
	8.7	Instructions for Recording and Reporting Occupational Radiation Exposure Data (Rev. 2, November 2005)	12.1 (NEI 07-08A) Appendix 12AA (NEI 07-03A)
PTN COL 1.9-1	8.8	Information Relevant to Ensuring That Occupational Radiation Exposures at Nuclear Power Stations Will Be as Low as Is Reasonably Achievable (Rev. 3, June 1978)	12.1 (NEI 07-08A) 12.3.4 Appendix 12AA Appendix 12AA (NEI 07-03A) 13.1.2.1.2 13.1.2.1.2.6
STD COL 1.9-1	8.9	Acceptable Concepts, Models, Equations, and Assumptions for a Bioassay Program (Rev. 1, July 1993)	12.1 (NEI 07-08A) Appendix 12AA (NEI 07-03A)

## Table 1.9-201 (Sheet 10 of 10) Regulatory Guide/FSAR Section Cross-References

		Regulatory Guides	FSAR Chapter, Section, or Subsection <sup>(a)</sup>
PTN COL 1.9-1	8.10	Operating Philosophy for Maintaining Occupational Radiation Exposures as Low as Is Reasonably Achievable (Rev. 1-R, May 1977)	12.1 (NEI 07-08A) 12.3.4 Appendix 12AA Appendix 12AA (NEI 07-03A) 13.1.2.1.2 13.1.2.1.2.6
	8.13	Instruction Concerning Prenatal Radiation Exposure (Rev. 3, June 1999)	12.1 (NEI 07-08A) Appendix 12AA (NEI 07-03A) 13.2 (NEI 06-13A)
STD COL 1.9-1	8.15	Acceptable Programs for Respiratory Protection (Rev. 1, October 1999)	12.1 (NEI 07-08A) Appendix 12AA (NEI 07-03A)
	8.27	Radiation Protection Training for Personnel at Light-Water-Cooled Nuclear Power Plants (Rev. 0, March 1981)	12.1 (NEI 07-08A) Appendix 12AA (NEI 07-03A)
	8.28	Audible-Alarm Dosimeters (Rev. 0, August 1981)	12.1 (NEI 07-08A) Appendix 12AA (NEI 07-03A)
	8.29	Instruction Concerning Risks from Occupational Radiation Exposure (Rev. 1, February 1996)	12.1 (NEI 07-08A) Appendix 12AA (NEI 07-03A)
	8.34	Monitoring Criteria and Methods To Calculate Occupational Radiation Doses (Rev. 0, July 1992)	12.1 (NEI 07-08A) Appendix 12AA (NEI 07-03A)
	8.35	Planned Special Exposures (Rev. 0, June 1992)	12.1 (NEI 07-08A) Appendix 12AA (NEI 07-03A)
	8.36	Radiation Dose to the Embryo/Fetus (Rev. 0, July 1992)	12.1 (NEI 07-08A) Appendix 12AA (NEI 07-03A)
	8.38	Control of Access to High and Very High Radiation Areas of Nuclear Plants (Rev. 1, May 2006)	12.1 (NEI 07-08A) Appendix 12AA Table 12.AA-201 Appendix 12AA (NEI 07-03A)

<sup>(</sup>a) NEI templates are incorporated by reference. See Table 1.6-201.

# Table 1.9-202 (Sheet 1 of 19)<sup>(a)</sup> Conformance with SRP Acceptance Criteria

		Criteria Section <sup>(b)</sup>	Reference Criteria	FSAR Position <sup>(c)</sup>	Comments/Summary of Exceptions
PTN SUP 1.9-1	1	Introduction and Interfaces, Rev. 1, 11/2007		N/A	No specific acceptance criteria associated with these general requirements.
STD SUP 1.9-1	2.0	Site Characteristics and Site Parameters, Initial Issuance, 03/2007		N/A	No specific acceptance criteria are identified.
	2.1.1	Site Location and Description		Acceptable	
	2.1.2	Exclusion Area Authority and Control		Acceptable	
PTN SUP 1.9-1	2.1.3	Population Distribution		Acceptable	
STD SUP 1.9-1	2.2.1–2.2.2	Identification of Potential Hazards in Site Vicinity		Acceptable	
	2.2.3	Evaluation of Potential Accidents		Acceptable	
	2.3.1	Regional Climatology		Acceptable	
	2.3.2	Local Meteorology		Acceptable	
PTN SUP 1.9-1	2.3.3	Onsite Meteorological Measurements Programs		Exception	Atmospheric moisture measurements are presently not taken for Units 3 & 4.
STD SUP 1.9-1	2.3.4	Short-Term Atmospheric Dispersion Estimates for Accident Releases		Acceptable	
	2.3.5	Long-Term Atmospheric Dispersion Estimates for Routine Releases		Acceptable	
	2.4.1	Hydrologic Description		Acceptable	
	2.4.2	Floods, Rev. 4, 03/2007		Acceptable	
PTN SUP 1.9-1	2.4.3	Probable Maximum Flood (PMF) on Streams and Rivers, Rev. 4, 03/2007		Exception	There are no streams and rivers near Units 6 & 7.
	2.4.4	Potential Dam Failures		Exception	There are no upstream or downstream dams that could affect Units 6 & 7.
STD SUP 1.9-1	2.4.5	Probable Maximum Surge and Seiche Flooding		Acceptable	

1.9-19 Revision 2

# Table 1.9-202 (Sheet 2 of 19)<sup>(a)</sup> Conformance with SRP Acceptance Criteria

		Criteria Section <sup>(b)</sup>	Reference Criteria	FSAR Position <sup>(c)</sup>	Comments/Summary of Exceptions
STD SUP 1.9-1	2.4.6	Probable Maximum Tsunami Hazards		Acceptable	
	2.4.7	Ice Effects		Acceptable	
	2.4.8	Cooling Water Canals and Reservoirs		Acceptable	
	2.4.9	Channel Diversions		Acceptable	
	2.4.10	Flooding Protection Requirements		Acceptable	
	2.4.11	Low Water Considerations		Acceptable	
	2.4.12	Groundwater		Acceptable	
	2.4.13	Accidental Releases of Radioactive Liquid Effluents in Ground and Surface Waters		Acceptable	
	2.4.14	Technical Specifications and Emergency Operation Requirements		Acceptable	
	2.5.1	Basic Geologic and Seismic Information, Rev.4, 03/2007		Acceptable	
PTN SUP 1.9-1	2.5.2	Vibratory Ground Motion, Rev. 4, 03/2007		Acceptable	
STD SUP 1.9-1	2.5.3	Surface Faulting, Rev. 4, 03/2007		Acceptable	
	2.5.4	Stability of Subsurface Materials and Foundations		Acceptable	
	2.5.5	Stability of Slopes System		Acceptable	
	3.2.1	Seismic Classification, Rev. 2, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
	3.2.2	System Quality Group Classification, Rev. 2, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
	3.3.1	Wind Loadings		Acceptable	See Notes <sup>(d), (e),</sup> and <sup>(f)</sup> .
	3.3.2	Tornado Loadings		Acceptable	See Notes <sup>(d), (e),</sup> and <sup>(f)</sup> .
	3.4.1	Internal Flood Protection for Onsite Equipment Failures		Acceptable	See Notes <sup>(d), (e),</sup> and <sup>(f)</sup> .
	3.4.2	Analysis Procedures			See Notes <sup>(d)</sup> and <sup>(e)</sup> .

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# Table 1.9-202 (Sheet 3 of 19)<sup>(a)</sup> Conformance with SRP Acceptance Criteria

STD SUP 1.9-1

	Criteria Section <sup>(b)</sup>	Reference Criteria	FSAR Position <sup>(c)</sup>	Comments/Summary of Exceptions
3.5.1.1	Internally Generated Missiles (Outside Containment)			See Notes (d) and (e).
3.5.1.2	Internally Generated Missiles (Inside Containment)			See Notes (d) and (e).
3.5.1.3	Turbine Missiles		Acceptable	See Notes (d), (e), and (f).
3.5.1.4	Missiles Generated by Tornadoes and Extreme Winds			See Notes (d) and (e).
3.5.1.5	Site Proximity Missiles (Except Aircraft), Rev.4, 03/2007		Acceptable	See Notes <sup>(d), (e),</sup> and <sup>(f)</sup> .
3.5.1.6	Aircraft Hazards		Acceptable	See Notes (d), (e), and (f).
				Aircraft hazard event probability is consistent with SRP 2.2.3, Rev. 3, Technical Rationale 2.
3.5.2	Structures, Systems, and Components to be Protected from Externally-Generated Missiles			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
3.5.3	Barrier Design Procedures			See Notes (d) and (e).
3.6.1	Plant Design for Protection Against Postulated Piping Failures in Fluid Systems Outside Containment			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
3.6.2	Determination of Rupture Locations and Dynamic Effects Associated with the Postulated Rupture of Piping, Rev. 2, 03/2007		Acceptable	See Notes <sup>(d), (e),</sup> and <sup>(f)</sup> .
3.6.3	Leak-Before-Break Evaluation Procedures, Rev. 1, 03/2007		Acceptable	See Notes <sup>(d), (e),</sup> and <sup>(f)</sup> .
3.7.1	Seismic Design Parameters			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
3.7.2	Seismic System Analysis		Acceptable	See Notes (d), (e), and (f).
3.7.3	Seismic Subsystem Analysis			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
3.7.4	Seismic Instrumentation, Rev. 2, 03/2007		Acceptable	See Notes (d), (e), and (f).
3.8.1	Concrete Containment, Rev. 2, 03/2007			See Notes (d) and (e).
3.8.2	Steel Containment, Rev. 2, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .

1.9-21 Revision 2

# Table 1.9-202 (Sheet 4 of 19)<sup>(a)</sup> Conformance with SRP Acceptance Criteria

STD SUP 1.9-1

	Criteria Section <sup>(b)</sup>	Reference Criteria	FSAR Position <sup>(c)</sup>	Comments/Summary of Exceptions
3.8.3	Concrete and Steel Internal Structures of Steel or Concrete Containments, Rev. 2, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
3.8.4	Other Seismic Category I Structures, Rev. 2, 03/2007			See Notes (d) and (e).
3.8.5	Foundations, Rev. 2, 03/2007		Acceptable	See Notes (d), (e), and (f).
3.9.1	Special Topics for Mechanical Components			See Notes (d) and (e).
3.9.2	Dynamic Testing and Analysis of Systems, Structures, and Components			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
3.9.3	ASME Code Class 1, 2, and 3 Components, Component Supports, and Core Support Structures, Rev. 2, 03/2007		Acceptable	See Notes <sup>(d), (e),</sup> and <sup>(f)</sup> .
3.9.4	Control Rod Drive Systems			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
3.9.5	Reactor Pressure Vessel Internals			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
3.9.6	Functional Design, Qualification, and Inservice Testing Programs for Pumps, Valves, and Dynamic Restraints		Acceptable	See Notes <sup>(d), (e),</sup> and <sup>(f)</sup> .
3.9.7	Risk-Informed Inservice Testing, Rev. 0, 08/1998		N/A	
3.9.8	Risk-Informed Inservice Inspection of Piping, Rev. 0, 09/2003		N/A	
3.10	Seismic and Dynamic Qualification of Mechanical and Electrical Equipment			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
3.11	Environmental Qualification of Mechanical and Electrical Equipment		Acceptable	See Notes <sup>(d), (e)</sup> and <sup>(f)</sup> .
3.12	ASME Code Class 1, 2, and 3 Piping Systems, Piping Components and their Associated Supports, Initial Issuance, 03/2007			See Note <sup>(g)</sup> .
3.13	Threaded Fasteners - ASME Code Class 1, 2, and 3, Initial Issuance, 03/2007			See Note <sup>(g)</sup> .
4.2	Fuel System Design			See Notes <sup>(d)</sup> and <sup>(e)</sup> .

1.9-22 Revision 2

# Table 1.9-202 (Sheet 5 of 19)<sup>(a)</sup> Conformance with SRP Acceptance Criteria

STD SUP 1.9-1

	Criteria Section <sup>(b)</sup>	Reference Criteria	FSAR Position <sup>(c)</sup>	Comments/Summary of Exceptions
4.3	Nuclear Design			See Notes (d) and (e).
4.4	Thermal and Hydraulic Design, Rev. 2, 03/2007		Acceptable	See Notes <sup>(d), (e),</sup> and <sup>(f)</sup> .
4.5.1	Control Rod Drive Structural Materials			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
4.5.2	Reactor Internal and Core Support Structure Materials			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
4.6	Functional Design of Control Rod Drive System, Rev. 2, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
5.2.1.1	Compliance with the Codes and Standards Rule, 10 CFR 50.55a		Acceptable	See Notes <sup>(d), (e),</sup> and <sup>(f)</sup> .
5.2.1.2	Applicable Code Cases			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
5.2.2	Overpressure Protection			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
5.2.3	Reactor Coolant Pressure Boundary Materials		Acceptable	See Notes <sup>(d), (e),</sup> and <sup>(f)</sup> .
5.2.4	Reactor Coolant Pressure Boundary Inservice Inspection and Testing, Rev. 2, 03/2007		Acceptable	See Notes <sup>(d), (e),</sup> and <sup>(f)</sup> .
5.2.5	Reactor Coolant Pressure Boundary Leakage Detection, Rev. 2, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
5.3.1	Reactor Vessel Materials, Rev. 2, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
5.3.2	Pressure-Temperature Limits, Upper-Shelf Energy, and Pressurized Thermal Shock, Rev. 2, 03/2007		Acceptable	See Notes <sup>(d), (e),</sup> and <sup>(f)</sup> .
5.3.3	Reactor Vessel Integrity, Rev. 2, 03/2007		Acceptable	See Notes (d), (e), and (f).
5.4	Reactor Coolant System Component and Subsystem Design, Rev. 2, 03/2007		N/A	No specific acceptance criteria associated with these general requirements.
5.4.1.1	Pump Flywheel Integrity (PWR), Rev. 2, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
5.4.2.1	Steam Generator Materials			See Notes (d) and (e).
5.4.2.2	Steam Generator Program, Rev. 2, 03/2007		Acceptable	See Notes <sup>(d), (e),</sup> and <sup>(f)</sup> .

1.9-23 Revision 2

# Table 1.9-202 (Sheet 6 of 19)<sup>(a)</sup> Conformance with SRP Acceptance Criteria

STD SUP 1.9-1

	Criteria Section <sup>(b)</sup>	Reference Criteria	FSAR Position <sup>(c)</sup>	Comments/Summary of Exceptions
5.4.6	Reactor Core Isolation Cooling System (BWR), Rev. 4, 03/2007		N/A	
5.4.7	Residual Heat Removal (RHR) System, Rev. 4, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
5.4.8	Reactor Water Cleanup System (BWR)		N/A	
5.4.11	Pressurizer Relief Tank			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
5.4.12	Reactor Coolant System High Point Vents, Rev. 1, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
5.4.13	Isolation Condenser System (BWR), Initial Issuance, 03/2007		N/A	
6.1.1	Engineered Safety Features Materials, Rev. 2, 03/2007		Acceptable	See Notes <sup>(d), (e),</sup> and <sup>(f)</sup> .
6.1.2	Protective Coating Systems (Paints) - Organic Materials		Acceptable	See Notes <sup>(d), (e),</sup> and <sup>(f)</sup> .
6.2.1	Containment Functional Design			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
6.2.1.1.A	PWR Dry Containments, Including Subatmospheric Containments			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
6.2.1.1.B	Ice Condenser Containments, Rev. 2, 07/1981		N/A	
6.2.1.1.C	Pressure-Suppression Type BWR Containments, Rev. 7, 03/2007		N/A	
6.2.1.2	Subcompartment Analysis			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
6.2.1.3	Mass and Energy Release Analysis for Postulated Loss-of-Coolant Accidents (LOCAs)			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
6.2.1.4	Mass and Energy Release Analysis for Postulated Secondary System Pipe Ruptures, Rev. 2, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
6.2.1.5	Minimum Containment Pressure Analysis for Emergency Core Cooling System Performance Capability Studies			See Notes <sup>(d)</sup> and <sup>(e)</sup> .

1.9-24 Revision 2

# Table 1.9-202 (Sheet 7 of 19)<sup>(a)</sup> Conformance with SRP Acceptance Criteria

STD SUP 1.9-1

	Criteria Section <sup>(b)</sup>	Reference Criteria	FSAR Position <sup>(c)</sup>	Comments/Summary of Exceptions
6.2.2	Containment Heat Removal Systems, Rev. 5, 03/2007			See Notes (d) and (e).
6.2.3	Secondary Containment Functional Design			See Notes (d) and (e).
6.2.4	Containment Isolation System			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
6.2.5	Combustible Gas Control in Containment		Acceptable	See Notes (d), (e), and (f).
6.2.6	Containment Leakage Testing		Acceptable	See Notes (d), (e), and (f).
6.2.7	Fracture Prevention of Containment Pressure Boundary, Rev. 1, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
6.3	Emergency Core Cooling System		Acceptable	See Notes <sup>(d), (e),</sup> and <sup>(f)</sup> .
6.4	Control Room Habitability System		Acceptable	See Notes <sup>(d), (e),</sup> and <sup>(f)</sup> .
6.5.1	ESF Atmosphere Cleanup Systems			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
6.5.2	Containment Spray as a Fission Product Cleanup System, Rev. 4, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
6.5.3	Fission Product Control Systems and Structures			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
6.5.4	Ice Condenser as a Fission Product Cleanup System, Rev. 3, 12/1988		N/A	
6.5.5	Pressure Suppression Pool as a Fission Product Cleanup System, Rev. 1, 03/2007		N/A	
6.6	Inservice Inspection and Testing of Class 2 and 3 Components, Rev. 2, 03/2007		Acceptable	See Notes (d), (e), and (f).
6.7	Main Steam Isolation Valve Leakage Control System (BWR), Rev. 2, 07/1981		N/A	
7	Instrumentation and Controls — Overview of Review Process, Rev. 5, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
Appendix 7.0-A	Review Process for Digital Instrumentation and Control Systems, Rev. 5, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .

1.9-25 Revision 2

# Table 1.9-202 (Sheet 8 of 19)<sup>(a)</sup> Conformance with SRP Acceptance Criteria

STD SUP 1.9-1

	Criteria Section <sup>(b)</sup>	Reference Criteria	FSAR Position <sup>(c)</sup>	Comments/Summary of Exceptions
7.1	Instrumentation and Controls — Introduction, Rev. 5, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
7.1-T Table 7-1	Regulatory Requirements, Acceptance Criteria, and Guidelines for Instrumentation and Control Systems Important to Safety, Rev. 5, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
Appendix 7.1-A	Acceptance Criteria and Guidelines for Instrumentation and Controls Systems Important to Safety, Rev. 5, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
Appendix 7.1-B	Guidance for Evaluation of Conformance to IEEE Std 279, Rev. 5, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
Appendix 7.1-C	Guidance for Evaluation of Conformance to IEEE Std 603, Rev. 5, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
Appendix 7.1-D	Guidance for Evaluation of the Application of IEEE Std 7-4.3.2 Initial Issuance 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
7.2	Reactor Trip System, Rev. 5, 03/2007			See Notes (d) and (e).
7.3	Engineered Safety Features Systems, Rev. 5, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
7.4	Safe Shutdown Systems, Rev. 5, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
7.5	Information Systems Important to Safety, Rev. 5, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
7.6	Interlock Systems Important to Safety, Rev. 5, 03/2007			See Notes (d) and (e).
7.7	Control Systems, Rev. 5, 03/2007			See Notes (d) and (e).
7.8	Diverse Instrumentation and Control Systems, Rev. 5, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
7.9	Data Communication Systems, Rev. 5, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
8.1	Electric Power — Introduction		N/A	No specific acceptance criteria associated with these general requirements.

1.9-26 Revision 2

# Table 1.9-202 (Sheet 9 of 19)<sup>(a)</sup> Conformance with SRP Acceptance Criteria

STD SUP 1.9-1

	Criteria Section <sup>(b)</sup>	Reference Criteria	FSAR Position <sup>(c)</sup>	Comments/Summary of Exceptions
8.2	Offsite Power System, Rev. 4, 03/2007		Acceptable	See Notes (d), (e), and (f).
8.3.1	A-C Power Systems (Onsite)		Acceptable	See Notes <sup>(d), (e),</sup> and <sup>(f)</sup> .
8.3.2	D-C Power Systems (Onsite)		Acceptable	See Notes <sup>(d), (e),</sup> and <sup>(f)</sup> .
8.4	Station Blackout, Initial Issuance, 03/2007			See Note <sup>(g)</sup> .
9.1.1	Criticality Safety of Fresh and Spent Fuel Storage and Handling			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
9.1.2	New and Spent Fuel Storage, Rev. 4, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
9.1.3	Spent Fuel Pool Cooling and Cleanup System, Rev. 2, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
9.1.4	Light Load Handling System (Related to Refueling)		Acceptable	See Notes (d), (e), and (f).
9.1.5	Overhead Heavy Load Handling Systems, Rev. 1, 03/2007		Acceptable	See Notes <sup>(d), (e),</sup> and <sup>(f)</sup> .
9.2.1	Station Service Water System, Rev. 5, 03/2007		Acceptable	See Notes <sup>(d), (e),</sup> and <sup>(f)</sup> .
9.2.2	Reactor Auxiliary Cooling Water Systems, Rev. 4, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
9.2.4	Potable and Sanitary Water Systems			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
9.2.5	Ultimate Heat Sink		Acceptable	See Notes <sup>(d), (e),</sup> and <sup>(f)</sup> .
9.2.6	Condensate Storage Facilities		Acceptable	See Notes <sup>(d), (e),</sup> and <sup>(f)</sup> .
9.3.1	Compressed Air System, Rev. 2, 03/2007		Acceptable	See Notes <sup>(d), (e),</sup> and <sup>(f)</sup> .
9.3.2	Process and Post-accident Sampling Systems			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
9.3.3	Equipment and Floor Drainage System			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
9.3.4	Chemical and Volume Control System (PWR) (Including Boron Recovery System)			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
9.3.5	Standby Liquid Control System (BWR)		N/A	
9.4.1	Control Room Area Ventilation System		Acceptable	See Notes (d), (e), and (f).

1.9-27 Revision 2

# Table 1.9-202 (Sheet 10 of 19)<sup>(a)</sup> Conformance with SRP Acceptance Criteria

STD SUP 1.9-1

	Criteria Section <sup>(b)</sup>	Reference Criteria	FSAR Position <sup>(c)</sup>	Comments/Summary of Exceptions
9.4.2	Spent Fuel Pool Area Ventilation System			See Notes (d) and (e).
9.4.3	Auxiliary and Radwaste Area Ventilation System			See Notes (d) and (e).
9.4.4	Turbine Area Ventilation System			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
9.4.5	Engineered Safety Feature Ventilation System			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
9.5.1	Fire Protection Program, Rev. 5, 03/2007		Acceptable	See Notes (d), (e), and (f).
9.5.2	Communications Systems		Acceptable	See Notes <sup>(d), (e),</sup> and <sup>(f)</sup> .
9.5.3	Lighting Systems			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
9.5.4	Emergency Diesel Engine Fuel Oil Storage and Transfer System		Acceptable	See Notes <sup>(d), (e),</sup> and <sup>(f)</sup> .
9.5.5	Emergency Diesel Engine Cooling Water System			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
9.5.6	Emergency Diesel Engine Starting System			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
9.5.7	Emergency Diesel Engine Lubrication System			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
9.5.8	Emergency Diesel Engine Combustion Air Intake and Exhaust System			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
10.2	Turbine Generator		Acceptable	See Notes (d), (e), and (f).
10.2.3	Turbine Rotor Integrity, Rev. 2, 03/2007		Acceptable	See Notes (d), (e), and (f).
10.3	Main Steam Supply System, Rev. 4, 03/2007		Acceptable	See Notes (d), (e), and (f).
10.3.6	Steam and Feedwater System Materials		Acceptable	See Notes <sup>(d), (e),</sup> and <sup>(f)</sup> .
10.4.1	Main Condensers			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
10.4.2	Main Condenser Evacuation System		Acceptable	See Notes <sup>(d), (e),</sup> and <sup>(f)</sup> .
10.4.3	Turbine Gland Sealing System			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
10.4.4	Turbine Bypass System			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
10.4.5	Circulating Water System		Acceptable	See Notes (d), (e), and (f).

1.9-28 Revision 2

# Table 1.9-202 (Sheet 11 of 19)<sup>(a)</sup> Conformance with SRP Acceptance Criteria

STD SUP 1.9-1

	Criteria Section <sup>(b)</sup>	Reference Criteria	FSAR Position <sup>(c)</sup>	Comments/Summary of Exceptions
10.4.6	Condensate Cleanup System			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
10.4.7	Condensate and Feedwater System, Rev. 4, 03/2007		Acceptable	See Notes <sup>(d), (e),</sup> and <sup>(f)</sup> .
10.4.8	Steam Generator Blowdown System (PWR)			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
10.4.9	Auxiliary Feedwater System (PWR)			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
11.1	Source Terms			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
11.2	Liquid Waste Management System		Acceptable	See Notes <sup>(d), (e),</sup> and <sup>(f)</sup> .
11.3	Gaseous Waste Management System		Acceptable	See Notes <sup>(d), (e),</sup> and <sup>(f)</sup> .
11.4	Solid Waste Management System		Acceptable	See Notes <sup>(d), (e),</sup> and <sup>(f)</sup> .
11.5	Process and Effluent Radiological Monitoring Instrumentation and Sampling Systems, Rev. 4, 03/2007		Acceptable	See Notes <sup>(d), (e),</sup> and <sup>(f)</sup> .
12.1	Assuring that Occupational Radiation Exposures Are As Low As Is Reasonably Achievable		Exception	See Notes (d), (e), and (f).  An exception is taken to following the guidance of RG 1.206 to address RG 8.20, 8.25, and RG 8.26. NUREG-1736, Final Report (published 2001) lists RG 8.20 and RG 8.26 as "outdated" and recommends the methods of RG 8.9 R1. RG 8.25 states it is not applicable to nuclear facilities licensed under 10 CFR Part 50, and, by extension, to 10 CFR Part 52.  An exception is taken to RG 8.8, C.3.b. RG 1.16, C.1.b (3) data is no longer reported. Reporting per C.1.b (2) is also no longer required.

1.9-29 Revision 2

# Table 1.9-202 (Sheet 12 of 19)<sup>(a)</sup> Conformance with SRP Acceptance Criteria

		Criteria Section <sup>(b)</sup>	Reference Criteria	FSAR Position <sup>(c)</sup>	Comments/Summary of Exceptions
STD SUP 1.9-1	12.2	Radiation Sources		Exception	See Notes (d), (e), and (f).  A general description of miscellaneous sealed sources related to radiography is provided in FSAR text. Other requested details are maintained on-site for NRC review and audit upon their procurement.
	12.3–12.4	Radiation Protection Design Features		Acceptable	See Notes <sup>(d), (e),</sup> and <sup>(f)</sup> .
	12.5	Operational Radiation Protection Program		Acceptable	See Notes <sup>(d), (e),</sup> and <sup>(f)</sup> .
PTN SUP 1.9-1	13.1.1	Management and Technical Support Organization, Rev. 5, 03/2007		Exception	See Notes (d), (e), and (f).  Design and construction responsibilities are not defined in numbers.  The experience requirements of corporate staff are set by corporate policy and not provided here in detail, however the experience level of the corporate staff, as discussed in Subsections 13.1.1, 13.1.1.1, and Appendix 13AA, in the area of nuclear plant development, construction, and management establishes that the applicant has the necessary capability and staff to ensure that design and construction of the facility will be performed in an acceptable manner.  Resumes and/or other documentation of qualification and experience of initial appointees to appropriate management and supervisory positions are available for NRC after position vacancies are filled.

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# Table 1.9-202 (Sheet 13 of 19)<sup>(a)</sup> Conformance with SRP Acceptance Criteria

STD SUP 1.9-1

	Criteria Section <sup>(b)</sup>	Reference Criteria	FSAR Position <sup>(c)</sup>	Comments/Summary of Exceptions
13.1.2–13.1.3	Operating Organization, Rev. 6, 03/2007		Exception	See Notes (d), (e), and (f).
				The SRP requires resumes of personnel holding plant managerial and supervisory positions to be included in the FSAR. Current industry practice is to have the resumes available for review by the regulator when requested but not be kept in the FSAR. Additionally, at time of COLA, most positions are unfilled.
13.2.1	Reactor Operator Requalification Program; Reactor		Exception	See Notes (d), (e), and (f).
	Operator Training			SRP requires meeting the guidance of NUREG-0711. NEI 06-13A, Technical Report on a Template for an Industry Training Program Description, which is incorporated by reference in FSAR Section 13.2, does not address meeting the guidance of NUREG-0711. NEI 06-13A, is approved by NRC to meet the regulatory requirements for the FSAR description of the Training Program.
				SRP requires meeting the guidance of Regulatory Guide 1.149, "Nuclear Power Plant Simulation Facilities for Use in Operator Training and License Examinations" RG 1.149 is not addressed in NEI 06-13A. Level of detail is consistent with NEI 06-13A.
13.2.2	Non-Licensed Plant Staff Training		Exception	See Notes (d), (e), and (f).
				Level of detail is consistent with NEI 06-13A.
13.3	Emergency Planning		Acceptable	See Notes (d), (e), and (f).

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# Table 1.9-202 (Sheet 14 of 19)<sup>(a)</sup> Conformance with SRP Acceptance Criteria

STD SUP 1.9-1

	Criteria Section <sup>(b)</sup>	Reference Criteria	FSAR Position <sup>(c)</sup>	Comments/Summary of Exceptions
13.4	Operational Programs		Acceptable	See Notes (d), (e), and (f).
13.5.1.1	Administrative Procedures — General, Initial Issuance, 03/2007		Exception	The procedure development schedule is addressed in the COL application (not in the SAR as requested by this SRP).
13.5.2.1	Operating and Emergency Operating Procedures, Rev.		Exception	See Notes <sup>(d), (e),</sup> and <sup>(f)</sup> .
	2, 03/2007			Procedures are generally identified in this section by topic, type, or classification in lieu of the specific title and represent general areas of procedural coverage.
13.6	Physical Security		Acceptable	See Security Plan developed in accordance with NEI 03-12.
13.6.1	Physical Security — Combined License Review Responsibilities, Initial Issuance, 03/2007		Acceptable	See Security Plan developed in accordance with NEI 03-12.
13.6.2	Physical Security — Design Certification, Initial Issuance, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
13.6.3	Physical Security — Early Site Permit, Initial Issuance, 03/2007		N/A	
14.2	Initial Plant Test Program — Design Certification and New License Applicants		Exception	See Notes <sup>(d), (e),</sup> and <sup>(f)</sup> .
				The level of detail is consistent with DCD section content addressing nonsafety-related systems.
14.2.1	Generic Guidelines for Extended Power Uprate Testing Programs, Initial Issuance, 08/2006		N/A	No power uprate is sought.
14.3	Inspections, Tests, Analyses, and Acceptance Criteria, Initial Issuance, 03/2007		Acceptable	
14.3.1	[Reserved]			

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# Table 1.9-202 (Sheet 15 of 19)<sup>(a)</sup> Conformance with SRP Acceptance Criteria

STD SUP 1.9-1

	Criteria Section <sup>(b)</sup>	Reference Criteria	FSAR Position <sup>(c)</sup>	Comments/Summary of Exceptions
14.3.2	Structural and Systems Engineering — Inspections, Tests, Analyses, and Acceptance Criteria, Initial Issuance, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
14.3.3	Piping Systems and Components — Inspections, Tests, Analyses, and Acceptance Criteria, Initial Issuance, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
14.3.4	Reactor Systems — Inspections, Tests, Analyses, and Acceptance Criteria, Initial Issuance, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
14.3.5	Instrumentation and Controls — Inspections, Tests, Analyses, and Acceptance Criteria, Initial Issuance, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
14.3.6	Electrical Systems — Inspections, Tests, Analyses, and Acceptance Criteria, Initial Issuance, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
14.3.7	Plant Systems — Inspections, Tests, Analyses, and Acceptance Criteria, Initial Issuance, 03/2007		Acceptable	See Notes <sup>(d), (e),</sup> and <sup>(f)</sup> .
14.3.8	Radiation Protection — Inspections, Tests, Analyses, and Acceptance Criteria, Initial Issuance, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
14.3.9	Human Factors Engineering - Inspections, Tests, Analyses, and Acceptance Criteria, Initial Issuance, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
14.3.10	Emergency Planning — Inspections, Tests, Analyses, and Acceptance Criteria, Initial Issuance, 03/2007		Acceptable	See Notes <sup>(d), (e),</sup> and <sup>(f)</sup> .
14.3.11	Containment Systems — Inspections, Tests, Analyses, and Acceptance Criteria, Initial Issuance, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
14.3.12	Physical Security Hardware — Inspections, Tests, Analyses, and Acceptance Criteria, Initial Issuance, 03/2007		Acceptable	See Notes <sup>(d), (e),</sup> and <sup>(f)</sup> .
15	Introduction — Transient and Accident Analysis			See Notes <sup>(d)</sup> and <sup>(e)</sup> .

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# Table 1.9-202 (Sheet 16 of 19)<sup>(a)</sup> Conformance with SRP Acceptance Criteria

STD SUP 1.9-1

	Criteria Section <sup>(b)</sup>	Reference Criteria	FSAR Position <sup>(c)</sup>	Comments/Summary of Exceptions
15.0.1	Radiological Consequence Analyses Using Alternative Source Terms, Rev. 0, 07/2000			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
15.0.2	Review of Transient and Accident Analysis Method, Rev. 0, 12/2005			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
15.0.3	Design Basis Accident Radiological Consequences of Analyses for Advanced Light Water Reactors, Initial Issuance, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
15.1.1–15.1.4	Decrease in Feedwater Temperature, Increase in Feedwater Flow, Increase in Steam Flow, and Inadvertent Opening of a Steam Generator Relief or Safety Valve, Rev. 2, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
15.1.5	Steam System Piping Failures Inside and Outside of Containment (PWR)			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
15.2.1–15.2.5	Loss of External Load; Turbine Trip; Loss of Condenser Vacuum; Closure of Main Steam Isolation Valve (BWR); and Steam Pressure Regulator Failure (Closed), Rev. 2, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
15.2.6	Loss of Nonemergency AC Power to the Station Auxiliaries, Rev. 2, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
15.2.7	Loss of Normal Feedwater Flow, Rev. 2, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
15.2.8	Feedwater System Pipe Breaks Inside and Outside Containment (PWR), Rev. 2, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
15.3.1–15.3.2	Loss of Forced Reactor Coolant Flow Including Trip of Pump Motor and Flow Controller Malfunctions, Rev. 2, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
15.3.3–15.3.4	Reactor Coolant Pump Rotor Seizure and Reactor Coolant Pump Shaft Break			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
15.4.1	Uncontrolled Control Rod Assembly Withdrawal from a Subcritical or Low Power Startup Condition			See Notes <sup>(d)</sup> and <sup>(e)</sup> .

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# Table 1.9-202 (Sheet 17 of 19)<sup>(a)</sup> Conformance with SRP Acceptance Criteria

STD SUP 1.9-1

	Criteria Section <sup>(b)</sup>	Reference Criteria	FSAR Position <sup>(c)</sup>	Comments/Summary of Exceptions
15.4.2	Uncontrolled Control Rod Assembly Withdrawal at Power			See Notes (d) and (e).
15.4.3	Control Rod Misoperation (System Malfunction or Operator Error)			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
15.4.4 –15.4.5	Startup of an Inactive Loop or Recirculation Loop at an Incorrect Temperature, and Flow Controller Malfunction Causing an Increase in BWR Core Flow Rate, Rev. 2, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
15.4.6	Inadvertent Decrease in Boron Concentration in the Reactor Coolant System (PWR), Rev. 2, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
15.4.7	Inadvertent Loading and Operation of a Fuel Assembly in an Improper Position, Rev. 2, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
15.4.8	Spectrum of Rod Ejection Accidents (PWR)			See Notes (d) and (e).
15.4.8.A	Radiological Consequences of a Control Rod Ejection Accident (PWR), Rev. 1, 07/1981			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
15.4.9	Spectrum of Rod Drop Accidents (BWR)		N/A	
15.5.1–15.5.2	Inadvertent Operation of ECCS and Chemical and Volume Control System Malfunction that Increases Reactor Coolant Inventory, Rev. 2, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
15.6.1	Inadvertent Opening of a PWR Pressurizer Pressure Relief Valve or a BWR Pressure Relief Valve, Rev. 2, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
15.6.5	Loss-of-Coolant Accidents Resulting From Spectrum of Postulated Piping Breaks Within the Reactor Coolant Pressure Boundary			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
15.8	Anticipated Transients Without Scram, Rev. 2, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
15.9	Boiling Water Reactor Stability, Initial Issuance, 03/2007		N/A	
16	Technical Specifications, Rev. 2, 03/2007		Acceptable	See Notes <sup>(d)</sup> , <sup>(e)</sup> , and <sup>(f)</sup> .

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# Table 1.9-202 (Sheet 18 of 19)<sup>(a)</sup> Conformance with SRP Acceptance Criteria

		Criteria Section <sup>(b)</sup>	Reference Criteria	FSAR Position <sup>(c)</sup>	Comments/Summary of Exceptions
STD SUP 1.9-1	16.1	Risk-informed Decision Making: Technical Specifications, Rev. 1, 03/2007		N/A	This SRP applies to the Technical Specifications change process.
PTN SUP 1.9-1	17.1	Quality Assurance During the Design and Construction Phases, Rev. 2, 07/1981		Acceptable	See Notes (d), (e), and (f). This section covers the requirements of SRP Section 17.1 through reference to quality assurance plan which is maintained separately as described in FSAR Sections 17.1 and 17.5.
STD SUP 1.9-1	17.2	Quality Assurance During the Operations Phase, Rev. 2, 07/1981			See Notes (d) and (e).
	17.3	Quality Assurance Program Description, Rev. 0, 08/1990			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
	17.4	Reliability Assurance Program (RAP), Initial Issuance, 03/2007			See Notes <sup>(d)</sup> and <sup>(e)</sup> .
	17.5	Quality Assurance Program Description — Design Certification, Early Site Permit and New License Applicants, Initial Issuance, 03/2007		Acceptable	See Notes <sup>(d), (e),</sup> and <sup>(f)</sup> . This section covers the requirements of SRP Section 17.5 through reference to Quality Assurance Program Description which is maintained separately and developed in accordance with NEI 06-14A.
PTN SUP 1.9-1	17.6	Maintenance Rule, Rev. 1, 08/2007		Acceptable	Content developed in accordance with NEI 07-02A
STD SUP 1.9-1	18.0	Human Factors Engineering, Rev. 2, 03/2007		Acceptable	See Notes (d), (e), and (f).
	19.0	Probabilistic Risk Assessment and Severe Accident Evaluation for New Reactors, Rev. 2, 06/2007		Acceptable	See Notes <sup>(d), (e),</sup> and <sup>(f)</sup> .
	19.1	Determining the Technical Adequacy of Probabilistic Risk Assessment Results for Risk-Informed Activities, Rev. 2, 06/2007		Acceptable	See Notes <sup>(d), (e),</sup> and <sup>(f)</sup> .

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# Table 1.9-202 (Sheet 19 of 19)<sup>(a)</sup> Conformance with SRP Acceptance Criteria

#### STD SUP 1.9-1

	Criteria Section <sup>(b)</sup>	Reference Criteria	FSAR Position <sup>(c)</sup>	Comments/Summary of Exceptions
19.2	Review of Risk Information Used to Support Permanent Plant-Specific Changes to the Licensing Basis: General Guidance, Initial Issuance, 06/2007			See Note <sup>(g)</sup> .

- (a) This table is provided as a one-time aid to facilitate NRC review. This table becomes historical information and need not be updated.
- (b) If no revision or date is specified, it is Rev. 3, 03/2007.
- (c) Consult the AP1000 Design Control Document (DCD) Appendix 1A and Appendix 1AA to determine extent of conformance with Regulatory Guides (except Regulatory Guide 1.206).
- (d) Conformance with a previous revision of this SRP is documented in AP1000 Design Control Document (Section 1.9.2 and WCAP-15799).
- (e) Conformance with the design aspects of this SRP is as stated in the AP1000 DCD.
- (f) Conformance with the plant or site-specific aspects of this SRP is as stated under "FSAR Position."
- (g) This SRP is not applicable to the AP1000 certified design.

1.9-37 Revision 2

# Table 1.9-203 (Sheet 1 of 18) Listing of Unresolved Safety Issues and Generic Safety Issues

Action Plan Item/Issue No.	Title	Applicable Screening Criteria	Notes
TMI Action P	lan Items	<u> </u>	
I.A.1.1	Shift Technical Advisor	f	Resolved per NUREG-0933
I.A.1.2	Shift Supervisor Administrative Duties	f	Resolved per NUREG-0933
I.A.1.3	Shift Manning	f	Resolved per NUREG-0933
I.A.1.4	Long-Term Upgrading	f	Resolved per NUREG-0933
I.A.2.1(1)	Qualifications — Experience	f	Resolved per NUREG-0933
I.A.2.1(2)	Immediate Upgrading of RO & SRO Training and Qualifications, Training	f	Resolved per NUREG-0933
I.A.2.1(3)	Facility Certification of Competence and Fitness of Applicants for Operator and Senior Operator Licenses	f	Resolved per NUREG-0933
I.A.2.3	Administration of Training Programs	f	Resolved per NUREG-0933
I.A.2.4	NRR Participation in Inspector Training	d	Not applicable to new plants
I.A.2.6(1)	Revise Regulatory Guide 1.8	f	Resolved per NUREG-0933
I.A.3.1	Revise Scope of Criteria for Licensing Examinations	f	Resolved per NUREG-0933
I.A.3.5	Establish Statement of Understanding with INPO and DOE	d	Not applicable to new plants
I.A.4.1(2)	Interim Changes in Training Simulators	f	Resolved per NUREG-0933
I.A.4.2(1)	Research on Training Simulators	f	Resolved per NUREG-0933

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## Table 1.9-203 (Sheet 2 of 18) Listing of Unresolved Safety Issues and Generic Safety Issues

Action Plan Item/Issue		Applicable Screening	
No.	Title	Criteria	Notes
TMI Action Pla	an Items (Continued)		
I.A.4.2(2)	Upgrade Training Simulator Standards	f	Resolved per NUREG-0933
I.A.4.2(3)	Regulatory Guide on Training Simulators	f	Resolved per NUREG-0933
I.A.4.2(4)	Review Simulators for Conformance to Criteria	f	Resolved per NUREG-0933
I.A.4.3	Feasibility Study of Procurement of NRC Training Simulator	d	Not applicable to new plants
I.A.4.4	Feasibility Study of NRC Engineering Computer	d	Not applicable to new plants
I.B.1.3(1)	Require Licensees to Place Plant in Safest Shutdown Cooling Following a Loss of Safety Function Due to Personnel Error	d	Not applicable to new plants
I.B.1.3(2)	Use Existing Enforcement Options to Accomplish Safest Shutdown Cooling	d	Not applicable to new plants
I.B.1.3(3)	Use Non-Fiscal Approaches to Accomplish Safest Shutdown Cooling	d	Not applicable to new plants
I.B.2.1(1)	Verify the Adequacy of Management and Procedural Controls and Staff Discipline	d	Not applicable to new plants
I.B.2.1(2)	Verify that Systems Required to Be Operable Are Properly Aligned	d	Not applicable to new plants
I.B.2.1(3)	Follow-up on Completed Maintenance Work Orders to Ensure Proper Testing and Return to Service	d	Not applicable to new plants
I.B.2.1(4)	Observe Surveillance Tests to Determine Whether Test Instruments Are Properly Calibrated	d	Not applicable to new plants
I.B.2.1(5)	Verify that Licensees Are Complying with Technical Specifications	d	Not applicable to new plants
I.B.2.1(6)	Observe Routine Maintenance	d	Not applicable to new plants

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# Table 1.9-203 (Sheet 3 of 18) Listing of Unresolved Safety Issues and Generic Safety Issues

Action Plan Item/Issue No.	Title	Applicable Screening Criteria	Notes			
TMI Action Pla	TMI Action Plan Items (Continued)					
I.B.2.1(7)	Inspect Terminal Boards, Panels, and Instrument Racks for Unauthorized Jumpers and Bypasses	d	Not applicable to new plants			
I.B.2.2	Resident Inspector at Operating Reactors	d	Not applicable to new plants			
I.B.2.3	Regional Evaluations	d	Not applicable to new plants			
I.B.2.4	Overview of Licensee Performance	d	Not applicable to new plants			
I.C.1(1)	Small Break LOCAs	f	Resolved per NUREG-0933			
I.C.1(2)	Inadequate Core Cooling	f	Resolved per NUREG-0933			
I.C.1(3)	Transients and Accidents	f	Resolved per NUREG-0933			
I.C.2	Shift and Relief Turnover Procedures	f	Resolved per NUREG-0933			
I.C.3	Shift Supervisor Responsibilities	f	Resolved per NUREG-0933			
I.C.4	Control Room Access	f	Resolved per NUREG-0933			
I.C.6	Procedures for Verification of Correct Performance of Operating Activities	f	Resolved per NUREG-0933			
I.C.7	NSSS Vendor Review of Procedures	f	Resolved per NUREG-0933			
I.C.8	Pilot Monitoring of Selected Emergency Procedures for Near-Term Operating License Applicants	f	Resolved per NUREG-0933			
I.D.5(5)	Disturbance Analysis Systems	d	Not applicable to new plants			
I.D.6	Technology Transfer Conference	d	Not applicable to new plants			

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# Table 1.9-203 (Sheet 4 of 18) Listing of Unresolved Safety Issues and Generic Safety Issues

Action Plan Item/Issue No.	Title	Applicable Screening Criteria	Notes
	an Items (Continued)	Officeria	Notes
I.E.1	Office for Analysis and Evaluation of Operational Data	d	Not applicable to new plants
I.E.2	Program Office Operational Data Evaluation	d	Not applicable to new plants
I.E.3	Operational Safety Data Analysis	d	Not applicable to new plants
I.E.4	Coordination of Licensee, Industry, and Regulatory Programs	d	Not applicable to new plants
I.E.5	Nuclear Plant Reliability Data Systems	d	Not applicable to new plants
I.E.6	Reporting Requirements	d	Not applicable to new plants
I.E.7	Foreign Sources	d	Not applicable to new plants
I.E.8	Human Error Rate Analysis	d	Not applicable to new plants
I.F.2(6)	Increase the Size of Licensees' QA Staff	f	Resolved per NUREG-0933
I.F.2(9)	Clarify Organizational Reporting Levels for the QA Organization	f	Resolved per NUREG-0933
I.G.1	Training Requirements	f	Resolved per NUREG-0933
I.G.2	Scope of Test Program	f	Resolved per NUREG-0933
II.B.4	Training for Mitigating Core Damage	f	Resolved per NUREG-0933
II.B.5(1)	Behavior of Severely Damaged Fuel	d	Not applicable to new plants
II.B.5(2)	Behavior of Core Melt	d	Not applicable to new plants

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1.9-41 Revision 2

# Table 1.9-203 (Sheet 5 of 18) Listing of Unresolved Safety Issues and Generic Safety Issues

Action Plan Item/Issue No.	Title	Applicable Screening Criteria	Notes
TMI Action Pla	n Items (Continued)		
II.B.5(3)	Effect of Hydrogen Burning and Explosions on Containment Structures	d	Not applicable to new plants
II.B.6	Risk Reduction for Operating Reactors at Sites with High Population Densities	f	Resolved per NUREG-0933
II.E.1.3	Update Standard Review Plan and Develop Regulatory Guide	d	Resolved per NUREG-0933
II.E.6.1	Test Adequacy Study	d	Resolved per NUREG-0933
II.F.5	Classification of Instrumentation, Control, and Electrical Equipment	d	Not applicable to new plants
II.H.4	Determine Impact of TMI on Socioeconomic and Real Property Values	d	Not applicable to new plants
II.J.1.1	Establish a Priority System for Conducting Vendor Inspections	d	Not applicable to new plants
II.J.1.2	Modify Existing Vendor Inspection Program	d	Not applicable to new plants
II.J.1.3	Increase Regulatory Control Over Present Non-Licensees	d	Not applicable to new plants
II.J.1.4	Assign Resident Inspectors to Reactor Vendors and Architect-Engineers	d	Not applicable to new plants
II.J.2.1	Reorient Construction Inspection Program	d	Not applicable to new plants
II.J.2.2	Increase Emphasis on Independent Measurement in Construction Inspection Program	d	Not applicable to new plants
II.J.2.3	Assign Resident Inspectors to All Construction Sites	d	Not applicable to new plants
II.J.3.1	Organization and Staffing to Oversee Design and Construction	f	Not applicable to new plants
II.J.4.1	Revise Deficiency Reporting Requirements	f	Resolved per NUREG-0933

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1.9-42 Revision 2

## Table 1.9-203 (Sheet 6 of 18) Listing of Unresolved Safety Issues and Generic Safety Issues

Action Plan Item/Issue No.	Title	Applicable Screening Criteria	Notes		
TMI Action Plan Items (Continued)					
II.K.1(1)	Review TMI-2 PNs and Detailed Chronology of the TMI-2 Accident	f	Resolved per NUREG-0933		
II.K.1(3)	Review Operating Procedures for Recognizing, Preventing, and Mitigating Void Formation in Transients and Accidents	f	Resolved per NUREG-0933		
II.K.1(4)	Review Operating Procedures and Training Instructions	f	Resolved per NUREG-0933		
II.K.1(5)	Safety-Related Valve Position Description	f	Resolved per NUREG-0933		
II.K.1(6)	Review Containment Isolation Initiation Design and Procedures	f	Resolved per NUREG-0933		
II.K.1(9)	Review Procedures to Assure That Radioactive Liquids and Gases Are Not Transferred out of Containment Inadvertently	f	Resolved per NUREG-0933		
II.K.1(10)	Review and Modify Procedures for Removing Safety-Related Systems from Service	f	Resolved per NUREG-0933		
II.K.1(11)	Make All Operating and Maintenance Personnel Aware of the Seriousness and Consequences of the Erroneous Actions Leading up to, and in Early Phases of, the TMI-2 Accident	f	Resolved per NUREG-0933		
II.K.1(12)	One Hour Notification Requirement and Continuous Communications Channels	f	Resolved per NUREG-0933		
II.K.1(13)	Propose Technical Specification Changes Reflecting Implementation of All Bulletin Items	f	Resolved per NUREG-0933		
II.K.1(14)	Review Operating Modes and Procedures to Deal with Significant Amounts of Hydrogen	f	Resolved per NUREG-0933		
II.K.1(15)	For Facilities with Non-Automatic AFW Initiation, Provide Dedicated Operator in Continuous Communication with CR to Operate AFW	f	Resolved per NUREG-0933		
II.K.1(16)	Implement Procedures That Identify PZR PORV "Open" Indications and That Direct Operator to Close Manually at "Reset" Setpoint	f	Resolved per NUREG-0933		
II.K.1(17)	Trip PZR Level Bistable so That PZR Low Pressure Will Initiate Safety Injection	f	Resolved per NUREG-0933		

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# Table 1.9-203 (Sheet 7 of 18) Listing of Unresolved Safety Issues and Generic Safety Issues

Action Plan Item/Issue No.	Title	Applicable Screening Criteria	Notes
TMI Action Pla	an Items (Continued)		
II.K.1(26)	Revise Emergency Procedures and Train ROs and SROs	f	Resolved per NUREG-0933
II.K.3(3)	Report Safety and Relief Valve Failures Promptly and Challenges Annually	f	Resolved per NUREG-0933
II.K.3(5)	Automatic Trip of Reactor Coolant Pumps	f	Resolved per NUREG-0933
II.K.3(10)	Anticipatory Trip Modification Proposed by Some Licensees to Confine Range of Use to High Power Levels	f	Resolved per NUREG-0933
II.K.3(11)	Control Use of PORV Supplied by Control Components, Inc. Until Further Review Complete	f	Resolved per NUREG-0933
II.K.3(12)	Confirm Existence of Anticipatory Trip Upon Turbine Trip	f	Resolved per NUREG-0933
II.K.3(30)	Revised Small-Break LOCA Methods to Show Compliance with 10 CFR Part 50, Appendix K	f	Resolved per NUREG-0933
II.K.3(31)	Plant-Specific Calculations to Show Compliance with 10 CFR 50.46	f	Resolved per NUREG-0933
III.A.1.1(1)	Implement Action Plan Requirements for Promptly Improving Licensee Emergency Preparedness	f	Resolved per NUREG-0933
III.A.1.1(2)	Perform an Integrated Assessment of the Implementation	f	Not applicable to new plants
III.A.2.1(1)	Publish Proposed Amendments to the Rules	d	Resolved per NUREG-0933
III.A.2.1(2)	Conduct Public Regional Meetings	d	Not applicable to new plants
III.A.2.1(3)	Prepare Final Commission Paper Recommending Adoption of Rules	d	Not applicable to new plants
III.A.2.1(4)	Revise Inspection Program to Cover Upgraded Requirements	d	Resolved per NUREG-0933
III.A.2.2	Development of Guidance and Criteria	d	Resolved per NUREG-0933

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# Table 1.9-203 (Sheet 8 of 18) Listing of Unresolved Safety Issues and Generic Safety Issues

Action Plan Item/Issue		Applicable Screening	Next
No.	Title	Criteria	Notes
TMI Action Pla	n Items (Continued)		
III.A.3.3	Communications	d	Resolved per NUREG-0933
III.C.1(1)	Review Publicly Available Documents	d	Not applicable to new plants
III.C.1(2)	Recommend Publication of Additional Information	d	Not applicable to new plants
III.C.1(3)	Program of Seminars for News Media Personnel	d	Not applicable to new plants
III.C.2(1)	Develop Policy and Procedures for Dealing With Briefing Requests	d	Not applicable to new plants
III.C.2(2)	Provide Training for Members of the Technical Staff	d	Not applicable to new plants
III.D.2.4(2)	Place 50 TLDs Around Each Site	d	Not applicable to new plants
III.D.2.6	Independent Radiological Measurements	d	Not applicable to new plants
III.D.3.2(1)	Amend 10 CFR Part 20	d	Not applicable to new plants
III.D.3.2(2)	Issue a Regulatory Guide	d	Not applicable to new plants
III.D.3.2(3)	Develop Standard Performance Criteria	d	Not applicable to new plants
III.D.3.2(4)	Develop Method for Testing and Certifying Air-Purifying Respirators	d	Not applicable to new plants
III.D.3.3	In-Plant Radiation Monitoring	COL Item 12.3-2	12.3.4, Appendix 12AA
III.D.3.5(1)	Develop Format for Data To Be Collected by Utilities Regarding Total Radiation Exposure to Workers	d	Not applicable to new plants
III.D.3.5(2)	Investigate Methods of Obtaining Employee Health Data by Nonlegislative Means	d	Not applicable to new plants

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# Table 1.9-203 (Sheet 9 of 18) Listing of Unresolved Safety Issues and Generic Safety Issues

Action Plan Item/Issue	T:41-	Applicable Screening	Notes
No.	Title	Criteria	Notes
	n Items (Continued)		
III.D.3.5(3)	Revise 10 CFR Part 20	d	Not applicable to new plants
IV.A.1	Seek Legislative Authority	d	Not applicable to new plants
IV.A.2	Revise Enforcement Policy	d	Not applicable to new plants
IV.B.1	Revise Practices for Issuance of Instructions and Information to Licensees	d	Not applicable to new plants
IV.D.1	NRC Staff Training	d	Not applicable to new plants
IV.E.1	Expand Research on Quantification of Safety Decision-Making	d	Not applicable to new plants
IV.E.2	Plan for Early Resolution of Safety Issues	d	Not applicable to new plants
IV.E.3	Plan for Resolving Issues at the CP Stage	d	Not applicable to new plants
IV.E.4	Resolve Generic Issues by Rulemaking	d	Not applicable to new plants
IV.G.1	Develop a Public Agenda for Rulemaking	d	Not applicable to new plants
IV.G.2	Periodic and Systematic Reevaluation of Existing Rules	d	Not applicable to new plants
IV.G.3	Improve Rulemaking Procedures	d	Not applicable to new plants
IV.G.4	Study Alternatives for Improved Rulemaking Process	d	Not applicable to new plants
IV.H.1	NRC Participation in the Radiation Policy Council	d	Not applicable to new plants
V.A.1	Develop NRC Policy Statement on Safety	d	Not applicable to new plants

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# Table 1.9-203 (Sheet 10 of 18) Listing of Unresolved Safety Issues and Generic Safety Issues

Action Plan Item/Issue No.	Title	Applicable Screening Criteria	Notes
	an Items (Continued)		
V.B.1	Study and Recommend, as Appropriate, Elimination of Nonsafety Responsibilities	d	Not applicable to new plants
V.C.1	Strengthen the Role of Advisory Committee on Reactor Safeguards	d	Not applicable to new plants
V.C.2	Study Need for Additional Advisory Committees	d	Not applicable to new plants
V.C.3	Study the Need to Establish an Independent Nuclear Safety Board	d	Not applicable to new plants
V.D.1	Improve Public and Intervenor Participation in the Hearing Process	d	Not applicable to new plants
V.D.2	Study Construction-During-Adjudication Rules	d	Not applicable to new plants
V.D.3	Reexamine Commission Role in Adjudication	d	Not applicable to new plants
V.D.4	Study the Reform of the Licensing Process	d	Not applicable to new plants
V.E.1	Study the Need for TMI-Related Legislation	d	Not applicable to new plants
V.F.1	Study NRC Top Management Structure and Process	d	Not applicable to new plants
V.F.2	Reexamine Organization and Functions of the NRC Offices	d	Not applicable to new plants
V.F.3	Revise Delegations of Authority to Staff	d	Not applicable to new plants
V.F.4	Clarify and Strengthen the Respective Roles of Chairman, Commission, and Executive Director for Operations	d	Not applicable to new plants
V.F.5	Authority to Delegate Emergency Response Functions to a Single Commissioner	d	Not applicable to new plants
V.G.1	Achieve Single Location, Long-Term	d	Not applicable to new plants

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### Table 1.9-203 (Sheet 11 of 18) Listing of Unresolved Safety Issues and Generic Safety Issues

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Action Plan Item/Issue No.	Title	Applicable Screening Criteria	Notes
TMI Action Pla	an Items (Continued)		
V.G.2	Achieve Single Location, Interim	d	Not applicable to new plants
Task Action P	lan Items	<u> </u>	
A-3	Westinghouse Steam Generator Tube Integrity (former USI)	COL Item 5.4-1	5.4.2.5
A-19	Digital Computer Protection System	d	Not applicable to new plants
A-20	Impacts of the Coal Fuel Cycle	d	Not applicable to new plants
A-23	Containment Leak Testing	COL Item 6.2-1	6.2.5.1
A-27	Reload Applications	d	Not applicable to new plants
B-1	Environmental Technical Specifications	d	Not applicable to new plants
B-2	Forecasting Electricity Demand	d	Not applicable to new plants
B-11	Subcompartment Standard Problems	d	Not applicable to new plants
B-13	Marviken Test Data Evaluation	d	Not applicable to new plants
B-20	Standard Problem Analysis	d	Not applicable to new plants
B-25	Piping Benchmark Problems	d	Not applicable to new plants
B-27	Implementation and Use of Subsection NF	d	Not applicable to new plants
B-28	Radionuclide/Sediment Transport Program	d	Not applicable to new plants

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### Table 1.9-203 (Sheet 12 of 18) Listing of Unresolved Safety Issues and Generic Safety Issues

Action Plan Item/Issue No.	Title	Applicable Screening Criteria	Notes
Task Action Pl	an Items (Continued)		
B-29	Effectiveness of Ultimate Heat Sinks	d	Not applicable to new plants
B-30	Design Basis Floods and Probability	d	Not applicable to new plants
B-33	Dose Assessment Methodology	d	Not applicable to new plants
B-35	Confirmation of Appendix I Models for Calculations of Releases of Radioactive Materials in Gaseous and Liquid Effluents from Light Water Cooled Power Reactors	d	Not applicable to new plants
B-37	Chemical Discharges to Receiving Waters	d	Not applicable to new plants
B-42	Socioeconomic Environmental Impacts	d	Not applicable to new plants
B-43	Value of Aerial Photographs for Site Evaluation	d	Not applicable to new plants
B-44	Forecasts of Generating Costs of Coal and Nuclear Plants	d	Not applicable to new plants
B-49	Inservice Inspection Criteria and Corrosion Prevention Criteria for Containments	d	Not applicable to new plants
B-59	(N-1) Loop Operation in BWRs and PWRs	d	Not applicable to new plants
B-64	Decommissioning of Reactors	f	Resolved per NUREG-0933.
B-72	Health Effects and Life Shortening from Uranium and Coal Fuel Cycles	d	Not applicable to new plants
C-4	Statistical Methods for ECCS Analysis	d	Not applicable to new plants
C-5	Decay Heat Update	d	Not applicable to new plants
C-6	LOCA Heat Sources	d	Not applicable to new plants

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### Table 1.9-203 (Sheet 13 of 18) Listing of Unresolved Safety Issues and Generic Safety Issues

Action Plan Item/Issue No.	Title	Applicable Screening Criteria	Notes					
New Generic Issues								
43.	Reliability of Air Systems	f, j	Resolved per NUREG-0933.					
59.	Technical Specification Requirements for Plant Shutdown when Equipment for Safe Shutdown is Degraded or Inoperable	d	Not applicable to new plants					
67.2.1	Integrity of Steam Generator Tube Sleeves	d	Not applicable to new plants					
67.5.1	Reassessment of Radiological Consequences	d	Not applicable to new plants					
67.5.2	Reevaluation of SGTR Design Basis	d	Not applicable to new plants					
67.10.0	Supplement Tube Inspections	d	Not applicable to new plants					
99.	RCS/RHR Suction Line Valve Interlock on PWRs	f	Resolved per NUREG-0933					
111.	Stress Corrosion Cracking of Pressure Boundary Ferritic Steels in Selected Environments	d	Not applicable to new plants					
112.	Westinghouse RPS Surveillance Frequencies and Out-of-Service Times	d	Not applicable to new plants					
118.	Tendon Anchorage Failure	f	Resolved per NUREG-0933.					
119.1	Piping Rupture Requirements and Decoupling of Seismic and LOCA Loads	d	Not applicable to new plants					
119.3	Decoupling the OBE from the SSE	d	Not applicable to new plants					
119.4	BWR Piping Materials	d	Not applicable to new plants					
119.5	Leak Detection Requirements	d	Not applicable to new plants					
128.	Electrical Power Reliability	h (High)	Resolved per NUREG-0933.					

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## Table 1.9-203 (Sheet 14 of 18) Listing of Unresolved Safety Issues and Generic Safety Issues

STD COL 1.9-3

Action Plan Item/Issue No.	Title	Applicable Screening Criteria	Notes
130.	Essential Service Water Pump Failures at Multiplant Sites	f	See DCD Subsection 1.9.4, item 130
133.	Update Policy Statement on Nuclear Plant Staff Working Hours	d	Not applicable to new plants
136.	Storage and Use of Large Quantities of Cryogenic Combustibles On Site	d	Not applicable to new plants
139.	Thinning of Carbon Steel Piping in LWRs	d	Not applicable to new plants
146.	Support Flexibility of Equipment and Components	d	Not applicable to new plants
147.	Fire-Induced Alternate Shutdown Control Room Panel Interactions	d	Not applicable to new plants
148.	Smoke Control and Manual Fire-Fighting Effectiveness	d	Not applicable to new plants
155.2	Establish Licensing Requirements For Non-Operating Facilities	d	Not applicable to new plants
156	Systematic Evaluation Program	f	Not applicable to new plants
156.6.1	Pipe Break Effects on Systems and Components	High	The AP1000 is a new plant that takes the effects of a pipe break into account and therefore issue 156.6.1 is not applicable.
163	Multiple Steam Generator Tube Leakage	h (High)	See DCD Subsection 1.9.4.2.3, item 163
168	Environmental Qualification Of Electrical Equipment	f	Not applicable to new plants
178	Effect Of Hurricane Andrew On Turkey Point	d	Not applicable to new plants

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### Table 1.9-203 (Sheet 15 of 18) Listing of Unresolved Safety Issues and Generic Safety Issues

	Action Plan Item/Issue No.	Title	Applicable Screening Criteria	Notes				
	New Generic Issues (Continued)							
STD COL 1.9-3	180	Notice Of Enforcement Discretion	d	Not applicable to new plants				
	181	Fire Protection	d	Not applicable to new plants				
	183	Cycle-Specific Parameter Limits In Technical Specifications	d	Not applicable to new plants				
	184	Endangered Species	d	Not applicable to new plants				
	185	Control of Recriticality following Small-Break LOCA in PWRs	h	Not applicable to new plants				
	186	Potential Risk and Consequences of Heavy Load Drops in Nuclear Power Plants	Continue	1.9.4.2.3, 9.1.5.3				
	189	Susceptibility of Ice Condenser and Mark III Containments to Early Failure from Hydrogen Combustion During a Severe Accident	Continue	Not applicable to the AP1000.				
	191	Assessment Of Debris Accumulation On PWR Sump Performance	h (High)	See DCD Subsections 6.3.2.2.7 and 1.9.4.2.3, Item 191				
	199	Implications of Updated Probabilistic Seismic Hazard Estimates in Central and Eastern United States	Issue to be Prioritized by NRC in the Future	2.5				
	Human Factor	's Issues						
STD COL 1.9-3	HF1.1	Shift Staffing	f	13.1.2.1.4 18.6				
	HF2.1	Evaluate Industry Training	d	Not applicable to new plants				
	HF2.2	Evaluate INPO Accreditation	d	Not applicable to new plants				

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### Table 1.9-203 (Sheet 16 of 18) Listing of Unresolved Safety Issues and Generic Safety Issues

	Action Plan Item/Issue		Applicable Screening						
	No.	Title	Criteria	Notes					
	Human Factors Issues (Continued)								
STD COL 1.9-3	HF2.3	Revise SRP Section 13.2	d	Not applicable to new plants					
	HF3.1	Develop Job Knowledge Catalog	d	Not applicable to new plants					
	HF3.2	Develop License Examination Handbook	d	Not applicable to new plants					
	HF3.5	Develop Computerized Exam System	d	Not applicable to new plants					
	HF4.2	Procedures Generation Package Effectiveness Evaluation	d	Not applicable to new plants					
	HF7.1	Human Error Data Acquisition	d	Not applicable to new plants					
	HF7.2	Human Error Data Storage and Retrieval	d	Not applicable to new plants					
	HF7.3	Reliability Evaluation Specialist Aids	d	Not applicable to new plants					
	HF7.4	Safety Event Analysis Results Applications	d	Not applicable to new plants					
	Chernobyl Iss	ues	I						
STD COL 1.9-3	CH1.1A	Symptom-Based EOPs	d	Not applicable to new plants					
	CH1.1B	Procedure Violations	d	Not applicable to new plants					
	CH1.2A	Test, Change, and Experiment Review Guidelines	d	Not applicable to new plants					
	CH1.2B	NRC Testing Requirements	d	Not applicable to new plants					
	CH1.3A	Revise Regulatory Guide 1.47	d	Not applicable to new plants					

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### Table 1.9-203 (Sheet 17 of 18) Listing of Unresolved Safety Issues and Generic Safety Issues

Action Plan Item/Issue No.	Title	Applicable Screening Criteria	Notes						
Chernobyl Iss	Chernobyl Issues (Continued)								
CH1.4A	Engineered Safety Feature Availability	d	Not applicable to new plants						
CH1.4B	Technical Specification Bases	d	Not applicable to new plants						
CH1.4C	Low Power and Shutdown	d	Not applicable to new plants						
CH1.5	Operating Staff Attitudes Toward Safety	d	Not applicable to new plants						
CH1.6A	Assessment of NRC Requirements on Management	d	Not applicable to new plants						
CH1.7A	Accident Management	d	Not applicable to new plants						
CH2.1A	Reactivity Transients	d	Not applicable to new plants						
CH2.3B	Contamination Outside Control Room	d	Not applicable to new plants						
CH2.3C	Smoke Control	d	Not applicable to new plants						
CH2.3D	Shared Shutdown Systems	d	Not applicable to new plants						
CH2.4A	Firefighting With Radiation Present	d	Not applicable to new plants						
CH3.1A	Containment Performance	d	Not applicable to new plants						
CH3.2A	Filtered Venting	d	Not applicable to new plants						
CH4.3A	Ingestion Pathway Protective Measures	d	Not applicable to new plants						
CH4.4A	Decontamination	d	Not applicable to new plants						

STD COL 1.9-3

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### Table 1.9-203 (Sheet 18 of 18) Listing of Unresolved Safety Issues and Generic Safety Issues

Action Plan Item/Issue		Applicable Screening	
No.	Title	Criteria	Notes
Chernobyl Iss	ues (Continued)		
CH4.4B	Relocation	d	Not applicable to new plants
CH5.1A	Mechanical Dispersal in Fission Product Release	d	Not applicable to new plants
CH5.1B	Stripping in Fission Product Release	d	Not applicable to new plants
CH5.2A	Steam Explosions	d	Not applicable to new plants
CH6.1B	Structural Graphite Experiments	d	Not applicable to new plants
CH6.2	Assessment	d	Not applicable to new plants

Notes (from DCD Table 1.9-2):

STD COL 1.9-3

- (d) Issue is not a design issue (Environmental, Licensing, or Regulatory Impact Issue; or covered in an existing NRC program).
- (f) Issue is not an AP1000 design certification issue. Issue is applicable to current operating plants or is programmatic in nature.
- (h) Issue is unresolved pending generic resolution (for example, prioritized as High, Medium, or possible resolution identified).
- (j) The AP600 DSER (Draft NUREG-0612) identified this item as required to be discussed.

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### Table 1.9-204 (Sheet 1 of 4) Generic Communications Assessment

	Number	Title	Comment
	Bulletin		
STD COL 1.9-2	80-06	Engineered Safety Feature (ESF) Reset Controls (3/80)	See Note (a).
	80-10	Contamination of Nonradioactive System and Resulting Potential for Unmonitored, Uncontrolled Release of Radioactivity to Environment (5/80)	Appendix 12AA
PTN COL 1.9-2	80-15	Possible Loss of Emergency Notification System (ENS) with Loss of Offsite Power (6/80)	9.5.2.2.5 9.5.2.5.1
STD COL 1.9-2	88-11	Pressurizer Surge Line Thermal Stratification	3.9.3.1.2
	02-01	Reactor Pressure Vessel Head Degradation and Reactor Coolant Pressure Boundary Integrity	5.2.4 See Note <sup>(a)</sup> .
	02-02	Reactor Pressure Vessel Head and Vessel Head Penetration Nozzle Inspection Programs	5.2.4 See Note <sup>(a)</sup> .
	03-01	Potential Impact of Debris Blockage on Emergency Sump Recirculation at Pressurized-Water Reactors	6.3 See Note <sup>(a)</sup> .
	03-02	Leakage from Reactor Pressure Vessel Lower Head Penetrations and Reactor Coolant Pressure Boundary Integrity	5.2.4.3 See Note <sup>(a)</sup> .
	03-03	Potentially Defective 1-inch Valves for Uranium Hexafluoride Cylinders	N/A
	03-04	Rebaselining of Data in the Nuclear Materials Management and Safeguards System	N/A One time report.
	04-01	Inspection of Alloy 82/182/600 Materials Used in the Fabrication of Pressurizer Penetrations and Steam Space Piping Connections at Pressurized-Water Reactors	See Note <sup>(a)</sup> .
	05-01	Material Control and Accounting at Reactors and Wet Spent Fuel Storage Facilities	13.6
	05-02	Emergency Preparedness and Response Actions for Security-Based Events	13.3
PTN COL 1.9-2	07-01	Security Officer Attentiveness	Administrative
	Generic Lette	ers	
STD COL 1.9-2	80-22	Transmittal of NUREG-0654 "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans" (3/80)	13.3
	80-26	Qualifications of Reactor Operators (3/ 80)	13.2 18.10
	80-51	On-Site Storage of Low-Level Waste (6/90)	11.4.6
	80-55	Possible Loss of Hotline With Loss of Off-Site Power	See Bulletin 80-15.

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### Table 1.9-204 (Sheet 2 of 4) Generic Communications Assessment

	Number	Title	Comment
	Generic Lette	ers (Continued)	
STD COL 1.9-2	80-77	Refueling Water Level (8/80)	16.1 See Note <sup>(a)</sup> .
	80-094	Emergency Plan (11/80)	13.3
	80-099	Technical Specification Revisions for Snubber Surveillance (11/80)	Snubbers no longer in generic Tech Specs See Note <sup>(a)</sup> .
	80-108	Emergency Planning (12/80)	13.3
	81-02	Analysis, Conclusions and Recommendations Concerning Operator Licensing (1/81)	13.2
	81-10	Post-TMI Requirements for the Emergency Operations Facility (2/81)	13.3
	81-38	Storage of Low-Level Radioactive Waste at Power Reactor Sites (11/81)	11.4.6
	81-40	Qualifications of Reactor Operators (12/81)	13.1 13.2
	82-02	Commission Policy on Overtime (2/82)	16.1
	82-04	Use of INPO See-in Program (3/82)	13.1 13.5
PTN COL 1.9-2	82-12	Nuclear Power Plant Staff Working Hours (6/82)	13.1.2.1.3 13.1.2.1.4 13.1.2.1.5
STD COL 1.9-2	82-13	Reactor Operator and Senior Reactor Operator Examinations (6/82)	For information only.
	82-18	Reactor Operator and Senior Reactor Operator Requalification Examinations (10/82)	13.2
	83-06	Certificates and Revised Format for Reactor Operator and Senior Reactor Operator Licenses (1/83)	13.2
	83-11	Licensee Qualification for Performing Safety Analyses in Support of Licensing Actions (2/83)	13.1 See Note <sup>(a)</sup> .
	83-12	Issuance of NRC FORM 398 — Personal Qualifications Statement — Licensee (2/83)	13.2
	83-17	Integrity of the Requalification Examinations for Renewal of Reactor Operator and Senior Reactor Operator Licenses (4/83)	13.1
	83-22	Safety Evaluation of "Emergency Response Guidelines" (6/83)	18.9
	83-40	Operator Licensing Examination (12/83)	13.2
	84-10	Administration of Operating Tests Prior to Initial Criticality (10 CFR 55.25) (4/84)	13.2
	84-14	Replacement and Requalification Training Program (5/84)	13.2

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# Table 1.9-204 (Sheet 3 of 4) Generic Communications Assessment

S	T	D	С	O	L	1.	9	-2

Number	Title	Comment				
Generic Letters (Continued)						
84-17	Annual Meeting to Discuss Recent Developments Regarding Operator Training, Qualifications, and Examinations (7/84)	Administrative				
84-20	Scheduling Guidance for Licensee Submittals of Reloads That Involve Unreviewed Safety Questions (8/84)	13.5				
85-04	Operating Licensing Examinations (1/85)	Administrative				
85-05	Inadvertent Boron Dilution Events (1/85)	13.5				
85-14	Commercial Storage At Power Reactor Sites Of Low Level Radioactive Waste Not Generated By The Utility (8/85)	Administrative				
85-18	Operator Licensing Examinations (9/85)	Administrative				
85-19	Reporting Requirements On Primary Coolant Iodine Spikes (9/85)	16.1				
86-14	Operator Licensing Examinations (8/86)	Administrative				
87-14	Operator Licensing Examinations (8/87)	Administrative				
88-05	Boric Acid Corrosion of Carbon Steel Reactor Pressure Boundary Components in PWR Plants (3/88)	5.2.4 See Note <sup>(a)</sup> .				
88-14	Instrument Air Supply System Problems Affecting Safety-Related Equipment (8/88)	9.3.7				
88-18	Plant Record Storage on Optical Disk (10/88)	17				
89-07	Power Reactors Safeguards Contingency Planning for Surface Vehicle Bombs (4/89)	13.6				
89-07 S1	Power Reactor Safeguards Contingency Planning for Surface Vehicle Bombs	13.6				
89-08	Erosion/Corrosion-Induced Pipe Wall Thinning (5/89)	10.1.3.1				
89-12	Operator Licensing Examinations (7/89)	13.2				
89-15	Emergency Response Data System (8/ 89)	9.5.2.5.3 13.3				
89-17	Planned Administrative Changes to the NRC Operator Licensing Written Examination Process (9/89)	N/A				
91-14	Emergency Telecommunications (9/91)	9.5.2.5.3 13.3				
91-16	Licensed Operators and Other Nuclear Facility Personnel Fitness for Duty (10/91)	13.7				
92-01	Reactor Vessel Structural Integrity (1/92)	5.3.2.6.3				
93-01	Emergency Response Data System Test Program	13.3				
93-03	Verification of Plant Records	17				

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### Table 1.9-204 (Sheet 4 of 4) Generic Communications Assessment

	Number	Title	Comment				
	Generic Letters (Continued)						
STD COL 1.9-2	96-02	Reconsideration of Nuclear Power Plant Security Requirements Associated with an Internal Threat (2/96)	13.6				
	03-01	Control Room Habitability	6.4 See Note <sup>(a)</sup> .				
	04-01	Requirements for Steam Generator Tube Inspections	5.4.2.5 16.1 See Note <sup>(a)</sup> .				
	04-02	Potential Impact of Debris Blockage on Emergency Recirculation during Design Basis Accidents at Pressurized-Water Reactors	6.3.8.1 See Note <sup>(a)</sup> .				
	06-01	Steam Generator Tube Integrity and Associated Technical Specifications	5.4.2.5 16.1 See Note <sup>(a)</sup> .				
	06-02	Grid Reliability and the Impact on Plant Risk and the Operability of Offsite Power	8.2.1.1 8.2.2 See Note <sup>(a)</sup> .				
	06-03	Potentially Nonconforming Hemyc and MT Fire Barrier Configurations	9.5.1.8 See Note <sup>(a)</sup> .				
	07-01	Inaccessible or Underground Power Cable Failures that Disable Accident Mitigation Systems or Cause Plant Transients.	17.6 See Note <sup>(a)</sup> .				
PTN COL 1.9-2	08-01	Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems	5.4 6.2 6.3 See Note <sup>(a)</sup> .				

<sup>(</sup>a) The design aspects of this topic are as stated in the AP1000 DCD.

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Add the following section after DCD Section 1.9.

### 1.10 NUCLEAR POWER PLANTS TO BE OPERATED ON MULTI-UNIT SITES

STD SUP 1.10-1

The certification for the AP1000 is for a single unit. Dual siting of AP1000 is achievable, provided that the centerlines of the units are sufficiently separated. The primary consideration in setting this separation distance is the space needed to support plant construction via the use of a heavy-lift crane.

PTN SUP 1.10-1

Security controls for operation of the first unit during construction of the second unit will be addressed in the Turkey Point Units 6 & 7 Physical Security Plan, Appendix E, before fuel load of the first unit.

STD SUP 1.10-1

Management and administrative controls are established to identify potential hazards to structures, systems, and components (SSCs) of an operating unit as a result of construction activities at a unit under construction. Controls within this section are not required unless there is an operating unit on the site, i.e., a unit with fuel loaded into the reactor vessel. Advance notification, scheduling and planning allow site management to implement interim controls to reduce the potential for impact to SSCs.

This section presents an assessment of the potential impacts of construction of one unit on SSCs important to safety for an operating unit, in accordance with 10 CFR 52.79(a)(31). This assessment includes:

- Identification of potential construction activity hazards.
- Identification of SSCs important to safety and limiting conditions for operation (LCOs) for the operating unit.
- Identification of potentially impacted SSCs and LCOs.
- Identification of applicable managerial and administrative controls.
- 1.10.1 Potential Construction Activity Hazards

PTN SUP 1.10-1 The power blocks for Units 6 and 7 have a separation of 850 feet between plant centerlines.

#### STD SUP 1.10-1

Construction activities may include site exploration, grading, clearing, and installation of drainage and erosion-control measures; boring, drilling, dredging, pile driving and excavating; transportation, storage and warehousing of equipment; and construction, erection, and fabrication of new facilities.

Construction activities and their representative hazards to an operating unit are shown in Table 1.10-201.

### 1.10.2 POTENTIALLY IMPACTED SSCS AND LIMITING CONDITIONS FOR OPERATION

The construction activities described above were reviewed for possible impact to operating unit SSCs important to safety.

#### PTN SUP 1.10-1

- PTN Units 3 & 4 SSCs important to safety are described in the Units 3 & 4
   Updated Final Safety Analysis Report (UFSAR).
- PTN Units 3 & 4 LCOs are located in Appendix A of the PTN 3 & 4 Operating Licenses (Technical Specifications).
- New unit SSCs important to safety are described in FSAR Chapter 3.
- As indicated in Chapter 16, the LCOs for Units 6 & 7 are located in Part 4 of the COL Application.

#### STD SUP 1.10-1

This assessment identified administrative and managerial controls to avoid impacts to SSCs from construction. The results of the assessment are presented in Table 1.10-202.

#### 1.10.3 MANAGERIAL AND ADMINISTRATIVE CONTROLS

To eliminate or mitigate construction hazards that could potentially impact operating unit SSCs important to safety, specific managerial and administrative controls have been identified as shown in Table 1.10-203.

Although not all of the managerial and administrative construction controls are necessary to protect the operating unit, the identified controls are applied to any operating unit as a conservative measure. This conservative approach provides

reasonable assurance of protecting the identified SSCs from potential construction hazards and preventing the associated LCOs specified in the operating unit Technical Specifications from being exceeded as a result of construction activities, as discussed below.

The majority of the operating unit SSCs important to safety are contained and protected within safety-related structures. The managerial controls protect these internal SSCs from postulated construction hazards by maintaining the integrity and design basis of the safety-related structures and foundations. Heavy load drop controls, crane boom failure standoff requirements, ground vibration controls and construction generated missile(s) control are examples of managerial controls that provide this protection.

Other managerial controls support maintaining offsite power, control of hazardous materials and gases, and protection of cooling water supplies and safety system instrumentation. These managerial controls prevent or mitigate external construction impacts that could affect SSCs important to safety. These controls also prevent or mitigate unnecessary challenges to safety systems caused by plant construction hazards, such as disruption of offsite transmission lines or impact to plant cooling water supplies.

The above discussed controls to eliminate or mitigate construction hazards that could potentially impact operating unit SSCs important to safety are in place when there is an operating nuclear unit on the site.

#### STD SUP 1.10-1

# Table 1.10-201 (Sheet 1 of 2) Potential Hazards From Construction Activities

Construction Activity Hazard	Potential Impact
Site Exploration, Grading, Clearing, Installation of Drainage and Erosion	Overhead Power Lines
Control Measures	Transmission Towers
	Underground Conduits, Piping, Tunnels, Etc.
	Site Access and Egress
	Drainage Facilities and Structures
	Onsite Transportation Routes
	Slope Stability
	Soil Erosion and Local Flooding
	Construction-Generated Dust and Equipment Exhausts
	Encroachment on Plant Control Boundaries
	Encroachment on Structures and Facilities
Boring, Drilling, Pile Driving, Dredging, Demolition, Excavation	Underground Conduits, Piping, Tunnels, Etc
Demondon, Excavation	Foundation Integrity
	Structural Integrity
	Slope Stability
	Erosion and Turbidity Control
	Groundwater and Groundwater Monitoring Facilities
	Dewatering Structures, Systems and Components
	Nearby Structures, Systems and Components
	Vibratory Ground Motion

#### STD SUP 1.10-1

# Table 1.10-201 (Sheet 2 of 2) Potential Hazards From Construction Activities

Construction Activity Hazard	Potential Impact
Equipment Movement, Material Delivery, Vehicle Traffic	Overhead Power Lines
255., 155	Transmission Towers
	Underground Conduits, Piping, Tunnels
	Crane Load Drops
	Crane or Crane Boom Failures
	Vehicle Accidents
	Rail Car Derailments
Equipment and Material Laydown, Storage, Warehousing	Releases of Stored Flammable, Hazardous or Toxic Materials
	Wind-Generated, Construction- Related Debris and Missiles
General Construction, Erection, Fabrication	Physical Integrity of Structures, Systems and Components
	Adjacent or Nearby Structures, Systems and Components
	Instrumentation and Control Systems and Components
	Electrical Systems and Components
	Cooling Water Systems and Components
	Waste Heat Environmental Controls and Parameters
	Radioactive Waste Release Points and Parameters
	Abandonment of Structures, Systems or Components
	Relocation of Structures, Systems or Components
	Removal of Structures, Systems or Components
Connection, Integration, Testing	Instrumentation and Control Systems and Components
	Electrical and Power Systems and Components
	Cooling Water Systems and Components

#### STD SUP 1.10-1

# Table 1.10-202 Hazards During Construction Activities

Construction Hazard	Impacted SSCs
Impact on Overhead Power Lines	Offsite Power System
Impact on Transmission Towers	Offsite Power Systems
Impact on Utilities, Underground	Fire Protection System
Conduits, Piping, Tunnels, Tanks	Service Water System <sup>1</sup>
Impact of Construction-Generated Dust and Equipment Exhausts	Control Room Emergency HVAC Systems <sup>1</sup>
	Diesel Generators
Impact of Vibratory Ground Motion	Offsite Power System
	Onsite Power Systems
	Instrumentation and Seismic Monitors
Impact of Crane or Crane Boom Failures	Safety-Related Structures
Impact of Releases of Flammable, Hazardous or Toxic Materials	Control Room Emergency HVAC Systems <sup>1</sup>
Impact of Wind-Generated,	Safety-Related Structures
Construction-Related Debris and Missiles	Control Room Emergency HVAC Systems <sup>1</sup>
Impact on Electrical Systems and Components	Offsite Power System
Сотроното	Onsite Power Systems
Impact on Cooling Water Systems and Components	Service Water System <sup>1</sup>
Components	Ultimate Heat Sink <sup>1</sup>
Impact on Radioactive Waste Release Points and Parameters	Gaseous and Liquid Radioactive Waste     Management Systems
Impact of Relocation of Structures,	Fire Protection System
Systems or Components	Service Water System <sup>1</sup>
Impact of Site Groundwater Depression and Dewatering	Safety-Related Structures and Foundations
Impact of Equipment Delivery and Heavy Equipment Delivery	Safety-Related Structures and Foundations

<sup>1</sup> Not applicable to AP1000 operating units.

#### STD SUP 1.10-1

# Table 1.10-203 (Sheet 1 of 2) Managerial and Administrative Construction Controls

Construction Hazards to SSCs	Managerial Control
Impact on Transmission Power Lines and Offsite Power Lines	Safe standoff clearance distances are established for transmission power lines, including verification of standoff distance for modules, the reactor vessel and other equipment to be transported beneath energized electric lines to meet minimum standoff clearance requirements.  Physical warning or caution barriers and signage are
	erected along transport routes.
Impact on Transmission Towers	Establish controls or physical barriers to avoid equipment collisions with electric transmission support towers
Impact on Utilities, Underground Conduits, Piping, Tunnels, Tanks	Grading, excavation, and pile driving require location and identification of equipment or underground structures that must be relocated, removed, or left in place and protected prior to the work activity.
Impact of Construction-Generated Dust and Equipment Exhausts	Fugitive dust and dust generation is controlled. Potentially affected system air intakes and filters are periodically monitored.
Impact of Vibratory Ground Motion	Construction administrative procedures, methods, and controls are implemented to prevent exceeding ground vibration and instrumentation limit settings.
Impact of Crane or Crane Boom Failures	Construction standoff distance controls prevent heavy load impacts from crane boom failures and crane load drops. Drop analyses may be substituted if minimum standoff distances are not practical.
Impact of Releases of Flammable, Hazardous or Toxic Materials and Missile Generation	Environmental, safety and health controls limit transport, storage, quantities, type and use of flammable, hazardous, toxic materials and compressed gasses. Construction safety and storage controls maintain potential missile generation events from compressed gasses within the operating unit design basis.
Impact of Wind-Generated, Construction-Related Debris and Missiles	Administrative controls address equipment, material storage and transport during high winds or high wind warnings.
	Plant procedures are followed during severe weather conditions which may call for power reduction or shut down.
Impact on Electrical Systems and Components	Affected operating unit electrical systems and components within the construction area are identified and isolated or relocated or otherwise protected.
Impact on Cooling Water Systems and Components	Transport of heavy load equipment over buried cooling water piping is prohibited without evaluation.

### STD SUP 1.10-1

# Table 1.10-203 (Sheet 2 of 2) Managerial and Administrative Construction Controls

Construction Hazards to SSCs	Managerial Control
Impact on Radioactive Waste Release Points and Parameters	<ul> <li>Engineering evaluation and managerial controls are implemented, as necessary, to prevent radioactive releases beyond the established limits due to construction activity.</li> </ul>
Impact of Relocation of Structures, Systems or Components	Administrative controls identify SSCs that require relocation. Temporary or permanent design changes are implemented if necessary.
Impact of Equipment Delivery and Heavy Equipment Delivery	Rail transport speed limits and maximum rail loading weights onsite are established.
	General equipment and heavy equipment movement controls and limitations are established.

# APPENDIX 1A CONFORMANCE WITH REGULATORY GUIDES

This section of the referenced DCD is incorporated by reference with the
following departures and/or supplements.

STD COL 1.9-1 Appendix 1AA is provided to supplement the information in DCD Appendix 1A.

# APPENDIX 1B SEVERE ACCIDENT MITIGATION DESIGN ALTERNATIVES

STD SUP 1B-1

DCD Appendix 1B is not incorporated into this FSAR. Rather, the severe accident mitigation design alternatives are addressed in the Environmental Report. As indicated in 10 CFR Part 52, Appendix D, Section III.B, "...the evaluation of severe accident mitigation design alternatives in appendix 1B of the generic DCD are not part of this appendix."

1B-1 Revision 2

# APPENDIX 1AA CONFORMANCE WITH REGULATORY GUIDES

Criteria Referenced FSAR Clarification/
Selection Criteria Position Summary Description of Exceptions

**DIVISION 1 - Power Reactors** 

#### STD COL 1.9-1

## Regulatory Guide 1.7, Rev. 3, 3/07 – Control of Combustible Gas Concentrations in Containment

Conformance of the design aspects with Revision 2 of the Regulatory Guide is as stated in the DCD. Conformance with Revision 3 of this Regulatory Guide for programmatic and/or operational aspects is documented below.

C.2 Conforms C.4 Conforms

## Regulatory Guide 1.8, Rev. 3, 5/00 – Qualification and Training of Personnel for Nuclear Power Plants

C.1 Conforms

C.2 Section 4 of Exception Not able to meet Regulatory Guide 1.8,

ANSI/ANS-3.1- Rev. 3 qualification requirements for licensed personnel prior to operations.

#### Regulatory Guide 1.12, Rev. 2, 3/97 - Nuclear Power Plant Instrumentation for Earthquakes

Conformance of the design aspects is as stated in the DCD. Conformance for programmatic and/ or operational aspects is documented below.

C.3 Conforms C.8 Conforms

#### Regulatory Guide 1.13, Rev. 2, 3/07 - Spent Fuel Storage Facility Design Basis

Conformance of the design aspects with Revision 1 of the Regulatory Guide is as stated in the DCD. Conformance with Revision 2 of this Regulatory Guide for programmatic and/or operational aspects is documented below.

C.7 Conforms

## Regulatory Guide 1.20, Rev. 3, 3/07 – Comprehensive Vibration Assessment Program For Reactor Internals During Preoperational and Initial Startup Testing

Conformance with Revision 2 of the Regulatory Guide is as stated in the DCD. This guidance is completely within the scope of the DCD.

Regulatory Guide 1.21, Rev. 1, 6/74 – Measuring Evaluating, and Reporting Radioactivity in Solid Wastes and Releases of Radioactive Materials in Liquid and Gaseous Effluents From Light-Water-Cooled Nuclear Power Plants

Conformance of the design aspects is as stated in the DCD. Conformance with Revision 1 of this Regulatory Guide for programmatic and/or operational aspects is documented below.

C.1 Conforms
C.3-C.5 Conforms
C.6 Conforms
C.7-C.14 Conforms

#### PTN COL 1.9-1

## Regulatory Guide 1.23, Rev. 1, 3/07 – Meteorological Monitoring Programs for Nuclear Power Plants

General Exception Sampling interval for temperature and dew

point during siting activities based on guidance in effect at the beginning of the

program

General Exception See Table 2.3.3-202.

1AA-1 Revision 2

STD COL 1.9-1

Criteria Referenced FSAR Clarification/

Selection Criteria Position Summary Description of Exceptions

Regulatory Guide 1.26, Rev. 4, 3/07 – Quality Group Classifications and Standards for Water-, Steam-, and Radioactive-Waste-Containing Components of Nuclear Power Plants

Conformance with Revision 3 of the Regulatory Guide for DCD scope of work is as stated in the DCD. Conformance with Revision 4 of this Regulatory Guide for remaining scope is documented below.

General Conforms

Regulatory Guide 1.28, Rev. 3, 8/85 – Quality Assurance Program Requirements (Design and Construction)

Conformance for DCD scope of work is as stated in the DCD. Conformance for remaining scope is documented below.

General Exception Quality assurance requirements utilize the

more recently NRC endorsed NQA-1 in lieu

of the identified outdated standards.

Regulatory Guide 1.29, Rev. 4, 3/07 - Seismic Design Classification

Conformance with Revision 3 of the Regulatory Guide for DCD scope of work is as stated in the DCD. Conformance with Revision 4 of this Regulatory Guide for remaining scope is documented below.

C.4 Conforms

Regulatory Guide 1.30, Rev. 0, 8/72 – Quality Assurance Requirements for the Installation, Inspection, and Testing of Instrumentation and Electric Equipment

Conformance for DCD scope of work is as stated in the DCD. Conformance for remaining scope is documented below.

General Exception Quality assurance requirements utilize the

more recently NRC endorsed NQA-1 in lieu

of the identified outdated standards.

Regulatory Guide 1.32, Rev. 3, 03/04 - Criteria for Power Systems for Nuclear Power Plants

Conformance of the design aspects with Revision 2 of the Regulatory Guide is as stated in the DCD. Conformance with Revision 3 of this Regulatory Guide for programmatic and/or operational aspects is documented below.

General Conforms

Regulatory Guide 1.33, Rev. 2, 2/78 – Quality Assurance Program Requirements (Operation)

C.1 Conforms

C.2 Clarification See separate conformance statement for

each identified Regulatory Guide.

C.3–C.5 Conforms

Regulatory Guide 1.37, Rev. 1, 3/07 – Quality Assurance Requirements for Cleaning of Fluid Systems and Associated Components of Water Cooled Nuclear Power Plants

Conformance of the design aspects with Revision 0 of the Regulatory Guide is as stated in the DCD. Conformance with Revision 1 of this Regulatory Guide for programmatic and/or operational aspects is documented below.

General Conforms

Regulatory Guide 1.38, Rev. 2, 5/77 – Quality Assurance Requirements for Packaging, Shipping, Receiving, Storage and Handling of Items for Water-Cooled Nuclear Power Plants

Conformance for DCD scope of work is as stated in the DCD. Conformance for remaining scope is documented below.

General Exception Quality assurance requirements utilize the

more recently NRC endorsed NQA-1 in lieu

of the identified outdated standards.

1AA-2 Revision 2

	Criteria Selection	Referenced Criteria	FSAR Position	Clarification/ Summary Description of Exceptions	
STD COL 1.9-1 Regulatory Guide 1.39, Rev. 2, 9/77 – Housekeeping Requirements for Nuclear Power Plants				ping Requirements for Water-Cooled	
	Conformance to documented by	•	ork is as stated ir	the DCD. Conformance for remaining scope is	
	General		Exception	Quality assurance requirements utilize the more recently NRC endorsed NQA-1 in lieu of the identified outdated standards.	
PTN COL 1.9-1	Regulatory Guide 1.45, Rev. 1, 5/08 – Guidance on Monitoring and Responding to Rea Coolant System Leakage			on Monitoring and Responding to Reactor	
	Conformance of the design aspects with Revision 0 of the Regulatory Guide is as stated in the DCD. Conformance with Revision 1 of this Regulatory Guide for programmatic and/or operational aspects is documented below.				
	C.7		Conforms		
STD COL 1.9-1	Filtration and		of Post-Accider	spection and Testing Criteria for Air nt Engineered-Safety-Feature Atmosphere ar Power Plants	

Cleanup Systems in Light-Water-Cooled Nuclear Power Plants

Conformance with the design and operational aspects is as stated in the DCD.

Regulatory Guide 1.53, Rev. 2, 11/03 - Application of the Single-Failure Criterion to Safety **Systems** 

Conformance of the design aspects with Revision 0 of the Regulatory Guide is as stated in the DCD. This guidance is completely within the scope of the DCD.

Regulatory Guide 1.54, Rev. 1, 7/00 - Service Level I, II, And III Protective Coatings Applied **To Nuclear Power Plants** 

Conformance of the design aspects is as stated in the DCD. Conformance with programmatic and/ or operational aspects is documented below.

General Conforms

Regulatory Guide 1.57, Rev. 1, 3/07 - Design Limits and Loading Combinations for Metal **Primary Reactor Containment System Components** 

Conformance with Revision 0 of the Regulatory Guide is as stated in the DCD. This guidance is completely within the scope of the DCD.

#### Regulatory Guide 1.59, Rev. 2, 8/77 - Design Basis Floods for Nuclear Power Plants

General Exception Regulatory Guide 1.59, Appendix A indicates use of ANSI N170-1976 "Standards for Determining Design Basis Flooding at Power Reactor Sites." In place of this standard, ANSI/ANS 2.8-1992 "Determining Design Basis Flooding at Power Reactor Sites" was used. ANSI/ANS 2.8-1992 was withdrawn on July 26, 2002. However, a replacement standard

has not been issued. NUREG-0800 2.4.3 Revision 4, March 2007and 2.4.4 Revision 3, March 2007 include ANSI/ANS 2.8-1992 as a reference. ANSI/ANS 2.8-1992 is also specifically

identified in the review procedures subsection of NUREG-0800 2.4.4.

Regulatory Guide 1.61, Rev. 1, 3/07 - Damping Values for Seismic Design of Nuclear Power **Plants** 

Conformance with Revision 0 of the Regulatory Guide is as stated in the DCD. This guidance is completely within the scope of the DCD.

> 1AA-3 Revision 2

STD COL 1.9-1

Criteria	Referenced	FSAR	Clarification/

Selection Criteria Position Summary Description of Exceptions

## Regulatory Guide 1.65, Rev. 0, 10/73 – Materials and Inspections for Reactor Vessel Closure Studs

Conformance of the design aspects is as stated in the DCD. Conformance with programmatic and/ or operational aspects is documented below.

C.3 Conforms

C.4 Exception ASME XI ISI criteria for reactor vessel

closure stud examinations are applied in lieu of the ASME III NB 2545 and NB 2546 surface examinations. The volumetric examinations currently required by ASME XI provide improved (since 1973) detection

of bolting degradation.

## Regulatory Guide 1.68, Rev. 3, 3/07 – Initial Test Program for Water-Cooled Nuclear Power Plants

Conformance with Revision 2 of the Regulatory Guide is documented in the DCD. Conformance of the design aspects is as stated in the DCD. Conformance with Revision 3 of this Regulatory Guide for programmatic and/or operational aspects is documented below.

C2-C.9 Conforms

Appendix B Appendix C

## Regulatory Guide 1.70, Rev. 3, 11/78, Standard Format and Content of Safety Analysis Reports for Nuclear Power Plants (LWR Edition)

General Exception The format and content of the FSAR follow

Regulatory Guide 1.206 and the AP1000 Design Control Document as required by

Appendix D of 10 CFR Part 52.

#### Regulatory Guide 1.71, Rev. 1, 3/07 - Welder Qualification for Areas of Limited Accessibility

Conformance of the design aspects with Revision 0 of the Regulatory Guide is as stated in the DCD. Conformance with Revision 1 of the Regulatory Guide during the operational phase (i.e., after the construction phase is completed per the DCD) is documented below.

General Conforms

Regulatory Guide 1.75, Rev. 3, 2/05 – Criteria for Independence of Electrical Safety Systems Conformance with Revision 2 of the Regulatory Guide is as stated in the DCD. This guidance is completely within the scope of the DCD.

## Regulatory Guide 1.76, Rev. 1, 3/07 – Design-Basis Tornado and Tornado Missiles for Nuclear Power Plants

Conformance with Revision 0 of the Regulatory Guide is as stated in the DCD. This guidance is completely within the scope of the DCD.

## Regulatory Guide 1.78, Rev. 1, 12/01 – Evaluating the Habitability of a Nuclear Power Plant Control Room During a Postulated Hazardous Chemical Release

Conformance with the design aspects is as stated in the DCD. Conformance with programmatic and/or operational aspects is documented below.

General Conforms

## Regulatory Guide 1.82, Rev. 3, 11/03 – Water Sources for Long-Term Recirculation Cooling Following a Loss-of-Coolant Accident

Conformance of the design aspects with Revision 2 of this Regulatory Guide is as stated in the DCD. Conformance with Revision 3 of this Regulatory Guide for programmatic and/or operational aspects is documented below.

C.1.1.2 Conforms C.1.1.5 Conforms

1AA-4 Revision 2

	Criteria Selection	Referenced Criteria	FSAR Position	Clarification/ Summary Description of Exceptions	
STD COL 1.9-1	Regulatory Guide 1.83, Rev. 1, 7/75 - Inservice Inspection of Pressurized Water Reactor Steam Generator Tubes				
	Conformance of the design aspects is as stated in the DCD. The programmatic and/or operational aspects are not applicable since this guidance was withdrawn by NRC (74 FR 58324, 11/12/2009).				
PTN COL 1.9-1	Regulatory Guide 1.84, Rev. 34, 10/07 – Design, Fabrication, and Materials Code Case Acceptability, ASME Section III				
	Conformance with Revision 32 of the Regulatory Guide is as stated in the DCD. This guidance is completely within the scope of the DCD.				
STD COL 1.9-1	Regulatory Gu Reactors	ide 1.86, Rev. 0, 6	/74 - Terminatio	n of Operating Licenses for Nuclear	
	This Regulatory	Guide is outside t	he scope of the F	FSAR.	
	•	ide 1.91, Rev. 1, 2 Routes Near Nuc		ns of Explosions Postulated to Occur on nats	
				the DCD. Conformance with Revision 1 of this onal aspects is documented below.	
	General		Conforms		
		ide 1.92, Rev. 2, 0 ı Seismic Respor		ng Modal Responses and Spatial	
	Conformance with Revision 1 of the Regulatory Guide is as stated in the DCD. This guidance is completely within the scope of the DCD.  Regulatory Guide 1.94, Rev. 1, 4/76 – Quality Assurance Requirements for Installation, Inspection and Testing of Structural Concrete and Structural Steel During the Construction Phase of Nuclear Power Plants				
	Conformance for documented be		ork is as stated in	the DCD. Conformance for remaining scope is	
	General Exception Quality assurance requirements utilize more recently NRC endorsed NQA-1 ir of the identified outdated standards.				
	Regulatory Guide 1.97, Rev. 4, 6/06 – Criteria For Accident Monitoring Instrume Nuclear Power Plants				
	Conformance w documented be	• .	Guide for progra	mmatic and/or operational aspects is	
	General		Exception	Portable equipment outside the DCD scope conforms to Revision 3 of this Regulatory Guide for consistency with DCD scope since Revision 4 indicates that partial implementation is not advised.	
	Regulatory Guide 1.101, Rev. 5, 6/05 – Emergency Response Planning and Preparedness f Nuclear Power Reactors				
	General		Exception	Rev. 5 is not applicable for this site. Rev. 3 and 4 are essentially the same except for endorsement of NEI 99-01 which is not directly applicable to the AP1000 passive design. The EP conforms to Rev. 3 and 4 with the exception that the EALs are written with necessary modifications to address the	

1AA-5 Revision 2

passive plant design.

Criteria Referenced **FSAR** Clarification/ Selection Criteria **Position Summary Description of Exceptions** STD COL 1.9-1 Regulatory Guide 1.109, Rev. 1, 10/77 - Calculation of Annual Doses to Man from Routine Releases of Reactor Effluents for the Purpose of Evaluating Compliance with 10 CFR Part 50, Appendix I Conformance of the design aspects is as stated in the DCD. Conformance with Revision 1 of this Regulatory Guide for programmatic and/or operational aspects is documented below. Conforms Regulatory Guide 1.110, Rev. 0, 3/76 - Cost-Benefit Analysis for Radwaste Systems for **Light-Water-Cooled Nuclear Power Reactors** Conformance of the design aspects is as stated in the DCD. Conformance with Revision 0 of this Regulatory Guide for programmatic and/or operational aspects is documented below. Conforms Regulatory Guide 1.111, Rev. 1, 7/77 - Methods for Estimating Atmospheric Transport and Dispersion of Gaseous Effluents in Routine Releases from Light-Water-Cooled Reactors Regulatory Guide 1.112, Rev. 1, 3/07 - Calculation of Releases of Radioactive Materials in Gaseous and Liquid Effluents from Light-Water-Cooled Nuclear Power Reactors Conformance of the design aspects with Revision 0-R of the Regulatory Guide is as stated in the DCD. Conformance with Revision 1 of this Regulatory Guide for programmatic and/or operational aspects is documented below. General ANSI 18.1-1999 Conforms Regulatory Guide 1.113, Rev. 1, 4/77 - Estimating Aquatic Dispersion of Effluents from Accidental and Routine Reactor Releases for the Purpose of Implementing Appendix I Conforms PTN COL 1.9-1 Regulatory Guide 1.114, Rev. 3, 10/08 – Guidance to Operators at the Controls and to Senior Operators in the Control Room of a Nuclear Power Unit Conforms STD COL 1.9-1 Regulatory Guide 1.115, Rev. 1, 7/77 - Protection Against Low-Trajectory Turbine Missiles

Conformance of the design aspects is as stated in the DCD. Conformance with Revision 1 of this Regulatory Guide for programmatic and/or operational aspects is documented below.

General Conforms

Regulatory Guide 1.116, Rev. 0-R, 5/77 - Quality Assurance Requirements for Installation, Inspection, and Testing of Mechanical Equipment and Systems

Conformance for DCD scope of work is as stated in the DCD. Conformance for remaining scope is documented below.

General Quality assurance requirements utilize the Exception

more recently NRC endorsed NQA-1 in lieu

of the identified outdated standards.

Regulatory Guide 1.124, Rev. 2, 02/07 - Service Limits and Loading Combinations for Class 1 Linear-Type Supports

Conformance with Revision 1 of the Regulatory Guide is as stated in the DCD. This guidance is completely within the scope of the DCD.

Regulatory Guide 1.128, Rev. 2, 2/07 - Installation Design and Installation of Vented Lead-Acid Storage Batteries for Nuclear Power Plants

Conformance with Revision 1 of the Regulatory Guide is as stated in the DCD. This guidance is completely within the scope of the DCD.

Regulatory Guide 1.129, Rev. 2, 2/07 - Maintenance, Testing, and Replacement of Vented **Lead-Acid Storage Batteries for Nuclear Power Plants** 

IEEE Std. 450-General Exception Approved Generic Technical Specifications

2002 are based on IEEE Std 450-1995.

> Revision 2 1AA-6

	Criteria	Referenced	FSAR	Clarification/
	Selection	Criteria	Position	Summary Description of Exceptions
CTD COL 4 0 4	D 111		0/0= 0	

STD COL 1.9-1

Regulatory Guide 1.130, Rev. 2, 3/07 - Service Limits and Loading Combinations for Class 1
Plate-And-Shell-Type Supports

Conformance with Revision 1 of the Regulatory Guide is as stated in the DCD. This guidance is completely within the scope of the DCD.

Regulatory Guide 1.132, Rev. 2, 10/03 – Site Investigations for Foundations of Nuclear Power Plants

General Conforms

Regulatory Guide 1.133, Rev. 1, 5/81 – Loose-Part Detection Program for the Primary System of Light-Water-Cooled Reactors

Conformance of the design aspects is as stated in the DCD. Conformance with Revision 1 of this Regulatory Guide for programmatic and/or operational aspects is documented below.

_	,		•
C.2b		Conforms	Procedures are addressed in Section 13.5
C.3a		Conforms	Procedures are addressed in Section 13.5
C.4g		Conforms	Procedures are addressed in Section 13.5
C.4h		Conforms	Procedures are addressed in Section 13.5
C.4i		Conforms	ALARA is addressed in Chapter 12 and Section 13.5
C.4j		Conforms	Training is addressed in Section 13.2
C.6		Exception	Regulatory Guide 1.16 has been withdrawn. Event reporting is performed in accordance with 10 CFR 50.72 and 50.73 utilizing the guidance of NUREG-1022

Regulatory Guide 1.134, Rev. 3, 3/98 – Medical Evaluation of Licensed Personnel at Nuclear Power Plants

General Conforms

Regulatory Guide 1.135, Rev. 0, 9/77 – Normal Water Level and Discharge at Nuclear Power Plants

Conformance of the design aspects is as stated in the DCD. The programmatic and/or operational aspects are not applicable since this guidance was withdrawn by NRC (74 FR 39349, 08/06/2009).

Regulatory Guide 1.138, Rev. 2, 12/03 – Laboratory Investigations of Soils and Rocks for Engineering Analysis and Design of Nuclear Power Plants

General Conforms

Regulatory Guide 1.139, Rev. 0, 5/78 – Guidance for Residual Heat Removal

Conformance with the design aspects is as stated in the DCD. The programmatic and/or operational aspects are not applicable since this guidance was withdrawn by NRC (73 FR 32750, 06/10/2008).

Regulatory Guide 1.143, Rev. 2, 11/01 – Design Guidance for Radioactive Waste Management Systems, Structures, and Components Installed in Light-Water-Cooled Nuclear Power Plants

Conformance of the design aspects is as stated in the DCD. Conformance with Revision 2 of this Regulatory Guide for programmatic and/or operational aspects is documented below.

General Conforms

Regulatory Guide 1.145, Rev. 1, 11/82 (Revised 2/83 to correct page 1.145-7) – Atmospheric Dispersion Models for Potential Accident Consequence Assessments at Nuclear Power Plants

General Conforms

1AA-7 Revision 2

	Criteria Selection	Referenced Criteria	FSAR Position	Clarification/ Summary Description of Exceptions			
PTN COL 1.9-1		Regulatory Guide 1.147, Rev. 15, 10/07 – Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1					
	of the design a	Conformance with Revision 12 of the Regulatory Guide is documented in the DCD. Conformance of the design aspects is as stated in the DCD. Conformance with Revision 15 of this Regulatory Guide for programmatic and/or operational aspects is documented below.					
	General		Conforms				
STD COL 1.9-1		uide 1.149, Rev. 3, ning and License		r Power Plant Simulation Facilities for Use in			
	C.1		Conforms	During cold licensing, training is conducted using a simulator with limited scope in			

Regulatory Guide 1.150, Rev. 1, 2/83 – Ultrasonic Testing of Reactor Vessel Welds During **Preservice and Inservice Examinations** 

1998.

Conformance with the design aspects is as stated in the DCD. The programmatic and/or operational aspects are not applicable since this guidance was withdrawn by NRC (73 FR 7766, 02/11/2008).

Regulatory Guide 1.152, Rev. 2, 1/06 - Criteria for Use of Computers in Safety Systems of **Nuclear Power Plants** 

Conformance of the design aspects with Revision 1 of the Regulatory Guide is as stated in the DCD. Conformance with Revision 2 of this Regulatory Guide for programmatic and/or operational aspects is documented below.

General The Cyber Security Program is based on Exception

> March 2009 revisions of the 10 CFR 73.54 regulations in lieu of Revision 2 of this

accordance with Appendix D of ANSI/ANS-3.5-1998. Operator Licensing examinations are conducted on a simulator meeting the applicable requirements of ANSI/ANS-3.5-

Regulatory Guide.

Regulatory Guide 1.154, Rev. 0, 1/87 – Format and Content of Plant-Specific Pressurized Thermal Shock Safety Analysis Reports for Pressurized Water Reactors

General Conforms

Regulatory Guide 1.159, Rev. 1, 10/03 - Assuring the Availability of Funds for **Decommissioning Nuclear Reactors** 

General N/A This Regulatory Guide is outside the scope

of the FSAR.

Regulatory Guide 1.160, Rev. 2, 3/97 - Monitoring the Effectiveness of Maintenance at **Nuclear Power Plants** 

General Conforms

Regulatory Guide 1.162, Rev. 0, 2/96 - Format and Content of Report for Thermal Annealing

of Reactor Pressure Vessels

N/A This Regulatory Guide is outside the scope

of the FSAR.

Regulatory Guide 1.163, Rev. 0, 9/95 – Performance-Based Containment Leak-Test Program

Conformance of the design aspects is as stated in the DCD. Conformance with Revision 0 of this Regulatory Guide for programmatic and/or operational aspects is documented below.

General Conforms

Regulatory Guide 1.165, Rev. 0, 3/97 - Identification and Characterization of Seismic Sources and Determination of Safe Shutdown Earthquake Ground Motion

General N/A Seismic analysis performed in accordance

with Regulatory Guide 1.208.

Revision 2 1AA-8

Criteria Referenced FSAR Clarification/

Selection Criteria Position Summary Description of Exceptions

Regulatory Guide 1.166, Rev. 0, 3/97 – Pre-Earthquake Planning and Immediate Nuclear

Power Plant Operator Post earthquake Actions

General Conforms

Regulatory Guide 1.167, Rev. 0, 3/97 – Restart of a Nuclear Power Plant Shut Down by a

Seismic Event

STD COL 1.9-1

General Conforms

Regulatory Guide 1.168, Rev. 1, 2/04 – Verification, Validation, Reviews, and Audits for Digital Computer Software Used in Safety Systems of Nuclear Power Plants

Conformance of the design aspects with Revision 0 of the Regulatory Guide is as stated in the DCD. Conformance with Revision 1 of this Regulatory Guide for programmatic and/or operational aspects is documented below.

General Conforms

Regulatory Guide 1.174, Rev. 1, 11/02 – An Approach for Using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis

This Regulatory Guide is outside the scope of the FSAR.

Regulatory Guide 1.175, Rev. 0, 8/98 – An Approach for Plant-Specific, Risk-Informed Decisionmaking: Inservice Testing

Risk-informed inservice testing is not being utilized for this plant.

Regulatory Guide 1.177, Rev. 0, 8/98 – An Approach for Plant-Specific, Risk-Informed Decisionmaking: Technical Specifications

Decisioninaking. reclinical Specifications

Regulatory Guide 1.178, Rev. 1, 9/03 – An Approach for Plant-Specific Risk-Informed Decisionmaking for Inservice Inspection of Piping

Risk-informed inservice inspection is not being utilized for this plant.

Regulatory Guide 1.179, Rev. 0, 1/99 – Standard Format and Content of License Termination Plans for Nuclear Power Reactors

N/A This Regulatory Guide is outside the scope

of the FSAR.

Regulatory Guide 1.180, Rev. 1, 10/03 – Guidelines for Evaluating Electromagnetic and Radio-Frequency Interference in Safety-Related Instrumentation and Control Systems

Conformance of the design aspects is as stated in the DCD. Conformance with Revision 1 of this Regulatory Guide for programmatic and/or operational aspects is documented below.

General Conforms Exclusion zones are established through

administrative controls to prohibit the activation of portable EMI/RFI emitters (e.g., welders and transceivers) in areas where safety-related I&C systems are

installed.

Regulatory Guide 1.181, Rev. 0, 9/99 – Content of the Updated Final Safety Analysis Report in Accordance with 10 CFR 50.71(e)

General Conforms

Regulatory Guide 1.182, Rev. 0, 5/00 – Assessing and Managing Risk Before Maintenance Activities at Nuclear Power Plants

General Conforms

Regulatory Guide 1.184, Rev. 0, 7/00 - Decommissioning of Nuclear Power Reactors

N/A This Regulatory Guide is outside the scope

of the FSAR.

1AA-9 Revision 2

STD COL 1.9-1

Criteria Referenced FSAR Clarification/

Selection Criteria Position Summary Description of Exceptions
Regulatory Guide 1.185, Rev. 0, 7/00 – Standard Format and Content for Post-shutdown

**Decommissioning Activities Report** 

N/A This Regulatory Guide is outside the scope

of the FSAR.

Regulatory Guide 1.186, Rev. 0, 12/00 – Guidance and Examples for Identifying 10 CFR 50.2

**Design Bases** 

N/A This Regulatory Guide is outside the scope

of the FSAR.

Regulatory Guide 1.187, Rev. 0, 11/00 – Guidance for Implementation of 10 CFR 50.59,

Changes, Tests, and Experiments

General Conforms

Regulatory Guide 1.188, Rev. 1, 9/05 – Standard Format and Content for Applications To

**Renew Nuclear Power Plant Operating Licenses** 

N/A This Regulatory Guide is outside the scope

of the FSAR.

Regulatory Guide 1.189, Rev. 1, 3/07 - Fire Protection for Nuclear Power Plants

Conformance with Revision 0 of the Regulatory Guide is documented in the DCD. Conformance of the design aspects is as stated in the DCD. Conformance with Revision 1 of this Regulatory Guide for programmatic and/or operational aspects is documented below.

General Conforms

Regulatory Guide 1.191, Rev. 0, 5/01 – Fire Protection Program for Nuclear Power Plants During Decommissioning and Permanent Shutdown

N/A This Regulatory Guide is outside the scope

of the FSAR.

Regulatory Guide 1.192, Rev. 0, 6/03 - Operation and Maintenance Code Case Acceptability,

**ASME OM Code** 

General Conforms

Regulatory Guide 1.193, Rev. 1, 8/05 - ASME Code Cases Not Approved for Use

General Conforms

Regulatory Guide 1.194, Rev. 0, 6/03 - Atmospheric Relative Concentrations for Control

Room Radiological Habitability Assessments at Nuclear Power Plants

General Conforms

Regulatory Guide 1.195, Rev. 0, 5/03 – Methods and Assumptions for Evaluating Radiological Consequences of Design Basis Accidents at Light-Water Nuclear Power

This Regulatory Guide is not applicable to the AP1000 certified design.

Regulatory Guide 1.196, Rev. 1, 1/07 – Control Room Habitability at Light-Water Nuclear Power Reactors

Conformance with Revision 1 of this Regulatory Guide for programmatic and/or operational aspects is documented below. This Regulatory Guide is not applicable to the AP1000 certified design.

General Conforms

Regulatory Guide 1.197, Rev. 0, 5/03 – Demonstrating Control Room Envelope Integrity at Nuclear Power Reactors

Conformance with the design aspects is as stated in the DCD. Conformance with programmatic and/or operational aspects is documented below.

General Conforms

Regulatory Guide 1.198, Rev. 0, 11/03 – Procedures and Criteria for Assessing Seismic Soil Liquefaction at Nuclear Power Plant Sites

General Conforms

1AA-10 Revision 2

Criteria Referenced FSAR Clarification/
Selection Criteria Position Summary Description of Exceptions

STD COL 1.9-1

Regulatory Guide 1.199, Rev. 0, 11/03 – Anchoring Components and Structural Supports in Concrete

N/A This Regulatory Guide is not applicable to

the AP1000 certified design.

Regulatory Guide 1.200, Rev. 1, 1/07 – An Approach for Determining the Technical Adequacy of Probabilistic Risk Assessment Results for Risk-Informed Activities

General Conforms

Regulatory Guide 1.201, Rev. 1, 5/06 – Guidelines for Categorizing Structures, Systems, and Components in Nuclear Power Plants According to Their Safety Significance

This Regulatory Guide is not applicable to the AP1000 certified design.

Regulatory Guide 1.202, Rev. 0, 2/05 – Standard Format and Content of Decommissioning Cost Estimates for Nuclear Power Reactors

This Regulatory Guide is outside the scope of the FSAR.

Regulatory Guide 1.203, Rev. 0, 12/05 - Transient and Accident Analysis Methods

This Regulatory Guide is not applicable to the AP1000 certified design.

Regulatory Guide 1.204, Rev. 0, 11/05 – Guidelines for Lightning Protection of Nuclear Power Plants

General Conforms

Regulatory Guide 1.205, Rev. 0, 5/06 – Risk-Informed, Performance-Based Fire Protection for Existing Light-Water Nuclear Power Plants

This Regulatory Guide is not applicable to the AP1000 certified design.

Regulatory Guide 1.206, Rev. 0, 6/07 – Combined License Applications for Nuclear Power Plants (LWR Edition)

General Format Conforms

General Content Exception Exceptions to content are identified in

Table 1.9-202.

Regulatory Guide 1.207, Rev. 0, 3/07 – Guidelines for Evaluating Fatigue Analyses Incorporating the Life Reduction of Metal Components Due to the Effects of the Light-Water Reactor Environment for New Reactors

This Regulatory Guide is not applicable to the AP1000 certified design.

Regulatory Guide 1.208, Rev. 0, 3/07 – A Performance-Based Approach to Define the Site-Specific Earthquake Ground Motion

General Conforms

Regulatory Guide 1.209, Rev. 0, 3/07 – Guidelines for Environmental Qualification of Safety-Related Computer-Based Instrumentation and Control Systems in Nuclear Power Plants

This Regulatory Guide is not applicable to the AP1000 certified design.

PTN COL 1.9-1 Regulatory Guide 1.210, Rev. 0, 06/08 – Qualification of Safety-Related Battery Chargers and Inverters for Nuclear Power Plants

This Regulatory Guide is not applicable to the AP1000 certified design.

Regulatory Guide 1.212, Rev. 0, 11/08 - Sizing of Large Lead-Acid Storage Batteries

General IEEE Std 485- Conforms TS Bases 3.8.1 states that criteria defined

1997 in IEEE-485 are used.

**DIVISION 4 – Environmental and Siting** 

STD COL 1.9-1 Regulatory Guide 4.7 Rev. 2, 4/98 – General Site Suitability Criteria for Nuclear Power

**Stations** 

General Conforms

1AA-11 Revision 2

Clarification/ Criteria Referenced **FSAR** Selection Criteria **Position Summary Description of Exceptions** PTN COL 1.9-1 Regulatory Guide 4.15, Rev. 2, 7/07 - Quality Assurance for Radiological Monitoring Programs (Inception through Normal Operations to License Termination) - Effluent Streams and the Environment General Conforms Regulatory Guide 4.21, Rev. 0, 6/08 - Minimization of Contamination and Radioactive Waste Generation: Life-Cycle Planning General Conforms **DIVISION 5 – Materials and Plant Protection** STD COL 1.9-1 Regulatory Guide 5.9, Rev. 2, 12/83 - Guidelines for Germanium Spectroscopy Systems for **Measurement of Special Nuclear Material** This Regulatory Guide is outside the scope of the FSAR. Regulatory Guide 5.12, Rev. 0, 11/73 - General Use of Locks in the Protection and Control of **Facilities and Special Nuclear Materials** Conformance of the design aspects is as stated in the DCD. This Regulatory Guide is outside the scope N/A of the FSAR. Regulatory Guide 5.65, Rev. 0, 9/86 - Vital Area Access Controls, Protection of Physical Security Equipment, and Key and Lock Controls Conformance of the design aspects is as stated in the DCD. N/A This Regulatory Guide is outside the scope of the FSAR. **DIVISION 8 – Occupational Health** STD COL 1.9-1 Regulatory Guide 8.2, Rev. 0, 2/73 - Guide for Administrative Practices in Radiation **Monitoring** 

General 10 CFR Part

20; ANSI 13.2-1969

Exception

The reference to 10 CFR 20.401 is no longer valid in the current version of 10

CFR Part 20.

ANSI N13.2-1969 was reaffirmed in 1988.

#### Regulatory Guide 8.4, Rev. 0, 2/73 - Direct-Reading and Indirect-Reading Pocket Dosimeters

General

10 CFR Part 20 Exception ANSI N13.5-

1972

The reference to 10 CFR 20.202 (a) and 20.401 is no longer valid in the current

version of 10 CFR Part 20.

ANSI N13.5-1972 was reaffirmed in 1989. The two performance criteria specified in Regulatory Guide 8.4 (accuracy and leakage) for these devices are met using acceptance standards in ANSI N322-1997 "American National Standard Inspection, Test, Construction, and Performance Requirements for Direct Reading Electrostatic/Electroscope Type

Dosimeters".

### Regulatory Guide 8.5, Rev. 1, 3/81 - Criticality and Other Interior Evacuation Signals

Conforms General

> 1AA-12 Revision 2

OTD 001 4 0 4	Criteria Selection	Referenced Criteria	FSAR Position	Clarification/ Summary Description of Exceptions	
STD COL 1.9-1	Regulatory Gu General	µide 8.6, Rev. 0, 5/	73 - Standard Te	Instrument calibration program is based upon criteria in ANSI N323A-1997 (with 2004 Correction Sheet) "Radiation Protection Instrumentation Test and Calibration, Portable Survey Instruments." The ANSI 42.3-1969 Standard is no longer recognized as sufficient for calibration of modern instruments.	
	Regulatory Guide 8.7, Rev. 2, 11/05 - Instructions for Recording and Reporting Occupational Radiation Dose Data				
	General		Conforms		
	Regulatory Guide 8.8, Rev. 3, 6/78 – Information Relevant to Ensuring That Occupational Radiation Exposures at Nuclear Power Stations Will Be As Low As Is Reasonably Achievable				
	Conformance of the design aspects is as stated in the DCD. Conformance with Revision 3 of this Regulatory Guide for programmatic and/or operational aspects is documented below.				
	C.1		Conforms		
	C.3.a		Conforms		
	C.3.b		Exception	Regulatory Guide 1.16 C.1.b.(3) data is no longer reported. Reporting per C.1.b(2) is also no longer required.	
	C.3.c		Conforms		
	C.4.b-C.4.d	ANSI Z-88.2, Regulatory Guide 8.15, NUREG-0041	Conforms	Conformance is with the latest revision of NUREG-0041.	
	Regulatory Guide 8.9, Rev. 1, 7/93 – Acceptable Concepts, Models, Equations, and Assumptions for a Bioassay Program				
	General		Conforms		
	Regulatory Guide 8.10, Rev. 1-R, 5/77 – Operating Philosophy For Maintaining Occupational Radiation Exposures as Low as is Reasonably Achievable				
	General		Conforms		
	Regulatory Guide 8.13, Rev. 3, 6/99 – Instruction Concerning Prenatal Radiation Exposure				
	General	•	Conforms	-	
	Regulatory G	Regulatory Guide 8.15, Rev. 1, 10/99 – Acceptable Programs for Respiratory Protection			
	General		Conforms		

General Conforms

Regulatory Guide 8.28, Rev. 0, 8/81 - Audible-Alarm Dosimeters

General ANSI N13.27- Conforms

1981

**Water-Cooled Nuclear Power Plants** 

Regulatory Guide 8.29, Rev. 1, 2/96 – Instruction Concerning Risks from Occupational Radiation Exposure

Regulatory Guide 8.27, Rev. 0, 3/81 - Radiation Protection Training for Personnel at Light-

General Conforms

Regulatory Guide 8.34, Rev. 0, 7/92 – Monitoring Criteria and Methods To Calculate Occupational Radiation Doses

General Conforms

1AA-13 Revision 2

Clarification/

STD COL 1.9-1 Selection Criteria Position Summary Description of Exceptions

Regulatory Guide 8.35, Rev. 0, 6/92 – Planned Special Exposures

General Conforms

Referenced

Regulatory Guide 8.36, Rev. 0, 7/92 - Radiation Dose to the Embryo/Fetus

**FSAR** 

General Conforms

Regulatory Guide 8.38, Rev. 1, 5/06 – Control of Access to High and Very High Radiation Areas in Nuclear Power Plants

Conformance of the design aspects is as stated in the DCD. Conformance with Revision 1 of this Regulatory Guide for programmatic and/or operational aspects is documented below.

General Conforms

#### Notes:

Criteria

- (1) Above stated general alternatives regarding the use of previous revisions of the Regulatory Guide for design aspects as stated in the DCD is provided to preserve the finality of the certified design. Further, each stated conformance with the programmatic and/or operational aspects is only to the extent that a design change or departure from the approved DCD is not required to implement those programmatic and/or operational aspects. As the operational and programmatic aspects become more fully defined (for example, during the preparation, approval, or initial implementation of plant procedures), there exists a potential that a conflict could be identified between the design as certified in the DCD and the programmatic and/or operational aspects of the guidance. In such cases, the design certification (rule) becomes the controlling factor, and the design conformance to the Regulatory Guide is per the revision stated in the DCD.
- (2) A "Criteria Section" entry of "General" indicates a scope for the conformance statement of "all regulatory guide positions related to programmatic and/or operational aspects." Thus, an associated conformance statement of "Conforms" indicates that the applicant "complies with all regulatory guide positions related to programmatic and/or operational aspects."

1AA-14 Revision 2