# CHAPTER 1

# INTRODUCTION AND GENERAL DESCRIPTION OF THE PLANT

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# 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.

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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.

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HAR SUP 1.1-2

This FSAR is hereby submitted under Section 103 of the Atomic Energy Act by Progress Energy Carolinas, Inc. (PEC) to the Nuclear Regulatory Commission (NRC) as part of the application for two Class 103 combined licenses (COLs) to construct and operate two nuclear power plants under the provisions of 10 CFR 52 Subpart C.

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### 1.1.1 PLANT LOCATION

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

HAR COL 2.1-1

Shearon Harris Nuclear Power Plant, Units 2 and 3 (HAR 2 and 3) are located in the extreme southwest corner of Wake County, North Carolina, and the southeast corner of Chatham County, North Carolina. The city of Raleigh, North Carolina, is approximately 16 miles northeast and the city of Sanford, North Carolina, is about 15 miles southwest.

Figure 2.1.1-201 identifies the site location. Figure 1.1-201 identifies the plant arrangement within the site.

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## 1.1.5 SCHEDULE

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

The estimated completion and commercial operation dates for HAR 2 and 3 are:

HAR COL 1.1-1

| | |
|---|---|
| HAR 2 | |
| Construction Completion/Fuel Load | December 2018 |
| Commercial Operation | June 2019 |
| HAR 3 | |
| Construction Completion/Fuel Load | December 2019 |
| Commercial Operation | June 2020 |

The dates provided are based on the Progress Energy Carolina's Integrated Resource Plan dated September 1, 2008. A site-specific construction plan and startup schedule will be provided to the NRC after issuance of the COLA.

## 1.1.6.1 Regulatory Guide 1.70

STD SUP 1.1-6

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

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.

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### 1.1.6.5 Proprietary Information

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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.

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### 1.1.6.6 Acronyms

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

HAR SUP 1.1-5

Table 1.1-201 provides a list of acronyms and abbreviations used in the HAR 2 and 3 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.

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### 1.1.7 COMBINED LICENSE INFORMATION

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

HAR COL 1.1-1

This COL Item is addressed in Subsection 1.1.5.

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HAR SUP 1.1-5

**Table 1.1-201 (Sheet 1 of 24)**
**Acronyms and Abbreviations Used in the FSAR**

| Acronym/Abbreviation | Definition |
|---|---|
| ºC | degrees Celsius |
| °F | degrees Fahrenheit |
| µm | Micrometer |
| µCi/cm$^3$ | microcuries per cubic centimeter |
| µCi/g | microcuries per gram |
| µrem/hr | microrem per hour |
| µCi/ml | microcuries per milliliter |
| 2-D | two dimensional |
| 3-D | three-dimensional |
| $^{87}Sr/^{86}Sr$ | strontium isotope ratios |
| 7Q10 | 7-day, 10-year |
| AADT | Average Annual Daily Traffic |
| AASHTO | American Association of State Highway and Transportation Officials |
| ac. | acre |
| ac.-ft. | acre-feet |
| AE | Architect-Engineer |
| AGI | American Geological Institute |
| aka | also known as |
| AMS | American Meteorological Society |
| amsl | above mean sea level |

HAR SUP 1.1-5

**Table 1.1-201 (Sheet 2 of 24)**
**Acronyms and Abbreviations Used in the FSAR**

| Acronym/Abbreviation | Definition |
|---|---|
| ANSS | Advanced National Seismic System |
| AP1000 | Westinghouse's AP1000 Reactor |
| ASOS | Automated Surface Observing System |
| Au | Augusta Series fine sandy loam |
| BAT | Barton Aerial Technologies |
| BEC | Bechtel |
| bgs | below ground surface |
| B&PVP | Boiler and Pressure Vessel Code |
| BRP | Blue Ridge-Piedmont |
| BTOC | below top of casing |
| Btu/hr | British Thermal Units per hour |
| BWR | boiling water reactor |
| C-I | seismic Category I |
| C-II | seismic Category II |
| CAM | Continuous Air Monitors |
| CAV | cumulative absolute velocity |
| CCTV | Closed Circuit Television |
| CDE | Committed Dose Equivalent |
| CECC | Central Emergency Control Center |
| CEDE | Committed Effective Dose Equivalent |
| CEO | Chief Executive Officer |

HAR SUP 1.1-5

**Table 1.1-201 (Sheet 3 of 24)**
**Acronyms and Abbreviations Used in the FSAR**

| Acronym/Abbreviation | Definition |
|---|---|
| CEUS | central and eastern United States |
| cfs | cubic feet per second |
| CGIA | Center for Geographic Information and Analysis |
| Chi/Q | atmospheric dilution factors |
| CLRT | Containment Leakage Rate Test |
| cm | centimeter |
| cm/sec | centimeters per second |
| $cm^2$/sec | square centimeters per second |
| CNO | Chief Nuclear Officer |
| CO | carbon monoxide |
| Co-58 | cobalt isotope 58 |
| Co-60 | cobalt isotope 60 |
| COCORP | Consortium for Continental Reflection Profiling |
| COLA | Combined License Application |
| CP&L | Carolina Power and Light |
| CPS | Computerized Procedure System |
| Cr-51 | chromium isotope 51 |
| CrB | Creedmoor sandy loam on slopes of 2 to 6 percent |
| CrB2 | Creedmoor sandy loam on slopes of 2 to 6 percent, eroded |

HAR SUP 1.1-5

**Table 1.1-201 (Sheet 4 of 24)**
**Acronyms and Abbreviations Used in the FSAR**

| Acronym/Abbreviation | Definition |
|---|---|
| CrC | Creedmoor sandy loam on slopes of 6 to 10 percent |
| CrE | Creedmoor sandy loam on slopes of 10 to 20 percent |
| CRR | cyclic resistance ratio |
| CSR | cyclic stress ratio |
| CS | Creedmoor segment |
| CtB | Creedmoor silt loam on slopes of 2 to 6 percent |
| CtC | Creedmoor silt loam on slopes of 6 to 10 percent |
| CU | consolidated-undrained |
| CZfg | felsic mica gneiss |
| CZig | Injected gneiss |
| d | distance from airport in kilometers (miles) |
| DAC | Derived Air Concentration |
| DAC-hr | Derived Air Concentration-hr |
| DAM | Dames & Moore |
| DE | deaggregation earthquake |
| DEH | high-magnitude deaggregation earthquake |
| DEL | low-magnitude deaggregation earthquake |
| DEM | middle-magnitude deaggregation earthquake |
| DFL | Durham Fall Line |
| $d_{max}$ | maximum required depth for engineering purposes |
| Dominion | Dominion Nuclear North Anna, LLC |

HAR SUP 1.1-5

**Table 1.1-201 (Sheet 5 of 24)**
**Acronyms and Abbreviations Used in the FSAR**

| Acronym/Abbreviation | Definition |
|---|---|
| DS | Durham segment |
| D/Q | Relative Deposition Factor |
| DRAP | Reliability Assurance Program for the design phase |
| $E_{pmt}$ | rock pressuremeter test modulus |
| EAB | exclusion area boundary |
| EAL | Emergency Action Level |
| ECFS | East Coast fault system |
| ECFS-C | central segment of the East Coast fault system |
| ECFS-N | northern segment of the East Coast fault system |
| ECFS-S | southern segment of the East Coast fault system |
| ECL | effective concentration limit |
| ECS | Emergency Communications System |
| EDIS | Economic Development Information System |
| EnC | Enon fine sand loam occurs on slopes of 6 to 10 percent |
| ENS | Emergency Notification System |
| EOC | Emergency Operations Centers |
| EOF | Emergency Operations Facility |
| EOP | Emergency Operating Procedure |
| EPC | engineering, procurement, and construction |
| EPRI-SOG | Electric Power Research Institute-Seismic Owners Group |

HAR SUP 1.1-5

**Table 1.1-201 (Sheet 6 of 24)**
**Acronyms and Abbreviations Used in the FSAR**

| Acronym/Abbreviation | Definition |
|---|---|
| EPZ | Emergency Planning Zone |
| EP-ITAAC | Emergency Planning-ITAAC |
| EQ | Environmental Qualification |
| EQMEL | Environmental Qualification Master Equipment List |
| ERDS | Emergency Response Data System |
| ERO | Emergency Response Organization |
| ERTS | Earth Resources Technology Satellite |
| ESP | Early Site Permit |
| ESRI | Environmental Systems Research Institute |
| EST | earth science team |
| ESW | Electro-slag Weld |
| ETE | Evacuation Time Estimate |
| ETSZ | East Tennessee seismic zone |
| E-W or EW | east-west |
| EWD | Engineering Weather Data |
| FA | Fault A |
| FAC | flow accelerated corrosion |
| FAA | Federal Aviation Administration |
| FB | Fault B |
| FC | Fault C |
| Fe-55 | iron isotope 55 |
| Fe-59 | iron isotope 59 |

HAR SUP 1.1-5

**Table 1.1-201 (Sheet 7 of 24)**
**Acronyms and Abbreviations Used in the FSAR**

| Acronym/Abbreviation | Definition |
|---|---|
| FERC | Federal Energy Regulatory Commission |
| FFD | Fitness for Duty |
| FICR | Foundation Interface Conditions report |
| FIPS | Federal Information Processing Standards |
| FPL | fire pond lineament |
| fps | feet per second |
| FS | factor of safety |
| FSAR | Final Safety Analysis Report |
| FSER | Final Safety Evaluation Report |
| ft. | foot/feet |
| $ft^2$ | square feet |
| ft/day | feet per day |
| $ft^2$/day | square feet per day |
| $ft^3$/day | cubic feet per day |
| ft/sec or f/s | feet per second |
| FTS | Federal Telephone System |
| g | gram |
| $g/cm^3$ | grams per cubic centimeter |
| gal. | gallon |
| GAO | U.S. Government Accountability Office |
| GCVSZ | Giles County, Virginia, seismic zone |

HAR SUP 1.1-5

**Table 1.1-201 (Sheet 8 of 24)**
**Acronyms and Abbreviations Used in the FSAR**

| Acronym/Abbreviation | Definition |
|---|---|
| GG&S | Geotechnical, Geological, and Seismological |
| GI-LLI | gastrointestinal tract-lower large intestine (ingestion pathway organ) |
| GIS | Geographic Information System |
| GMAW | Gas Metal Arc Welding |
| GMRS | ground motion response spectrum |
| GMT | Greenwich Mean Time |
| gpd | gallons per day |
| gpm or gal/min | gallons per minute |
| gpm/ft | gallons per minute per foot |
| GS | grab soil samples |
| GSI | geologic strength index |
| GTAW | Gas Tungsten Arc Welding |
| Gu | gullied land |
| h or hr. | hour |
| ha | hectare |
| HAR 2 | Shearon Harris Nuclear Power Plant, Unit 2 |
| HAR 3 | Shearon Harris Nuclear Power Plant, Unit 3 |
| HAR 2 and 3 | Shearon Harris Nuclear Power Plant, Units 2 and 3 |
| HazMat | hazardous materials |
| Harris fault | also known as the Site fault |
| Harris Lake | also known as Shearon Harris Storage Reservoir System |

HAR SUP 1.1-5

**Table 1.1-201 (Sheet 9 of 24)**
**Acronyms and Abbreviations Used in the FSAR**

| Acronym/Abbreviation | Definition |
|---|---|
| Harris Reservoir | also known as the Main Reservoir |
| HCLPF | high confidence, low probability of failure |
| HEC-HMS | Hydrologic Engineering Center-Hydrologic Modeling System |
| HE&EC | Harris Energy and Environmental Center |
| HF (2.5.1, 2.5.1) | Harris fault |
| Hg | mercury |
| HiRAT | High Resolution Acoustic Televiewer probe |
| HLA | Harding Lawson Associates |
| HMR | Hydrometeorological Report |
| HNP | Shearon Harris Nuclear Power Plant, Unit 1 |
| HPN | Health Physics Network |
| HSS | Holly Springs segment |
| H:V | horizontal to vertical |
| HV | high voltage |
| Hz | Hertz |
| $I_{50}$ | point load index |
| in. | inch |
| in./hr | inches per hour |
| in./yr | inches per year |
| INPO | Institute of Nuclear Power Operations |
| ISO | Independent System Operator |

HAR SUP 1.1-5

**Table 1.1-201 (Sheet 10 of 24)**
**Acronyms and Abbreviations Used in the FSAR**

| Acronym/Abbreviation | Definition |
|---|---|
| ISRM | International Society of Rock Mechanics |
| ITA | inspections, tests, or analyses |
| ITP | Initial Test Plan |
| JFT | Joint Frequency Tables |
| JIC | Joint Information Center |
| JPM | job performance measures |
| JTG | Joint Test Group |
| JTWG | Joint Testing Working Group |
| K/Ar | potassium-argon |
| ka | thousand years before present |
| kcf | kips per cubic foot |
| kg | kilogram |
| $kg/m^2$ | kilograms per square meter |
| kg/yr | kilograms per year |
| kip | kilopound (1000 pounds) |
| km | kilometer |
| $km^2$ | square kilometers |
| km/h | kilometers per hour |
| kPa | kilopascals |
| kPa/sec | kilopascals per second |
| ksf | kips per square foot |
| ksi | kips per square inch |

HAR SUP 1.1-5

**Table 1.1-201 (Sheet 11 of 24)**
**Acronyms and Abbreviations Used in the FSAR**

| Acronym/Abbreviation | Definition |
|---|---|
| KTTA | Sanford-Lee County Regional Airport |
| kV | kilovolt |
| kVA | kilovoltampere |
| l or L | liter |
| l/day or L/day | liters per day |
| l/min or L/min | liters per minute |
| l/yr or L/yr | liters per year |
| LAN | Local Area Network |
| LAW | Law Engineering |
| LCO | Limiting Conditions for Operations |
| LF | low-frequency, nominally 1 to 2.5 Hz |
| LiDAR | light detection and ranging |
| LLNL | Lawrence Livermore National Laboratory |
| LLRW | low-level radioactive waste |
| lb. | pound |
| LCD | local climatological data |
| LER | licensing event report |
| LLW | Low Noise Level |
| lpd | liters per day |
| LPG | liquefied petroleum gas |
| LSI | Liquefaction Severity Index |
| LWSP | Local Water Supply Plan |

HAR SUP 1.1-5

**Table 1.1-201 (Sheet 12 of 24)**
**Acronyms and Abbreviations Used in the FSAR**

| Acronym/Abbreviation | Definition |
|---|---|
| m | meter |
| **M** | moment magnitude |
| m/day | meters per day |
| m/s or m/sec | meters per second |
| $m^2$ | square meters |
| $m^2$/day | square meters per day |
| $m^3$ | cubic meters |
| $m^3$/s | cubic meters per second |
| $m_b$ | body-wave magnitude |
| Md | duration magnitude |
| $M_I$ | intensity magnitude (considered equivalent to **M**) |
| $M_{max}$ | maximum magnitude |
| Ma | million years before present |
| Main Reservoir | also known as Harris Reservoir |
| MASW | multi-channel analysis of surface waves |
| Mb | millibars |
| MCL | Management Counterpart Link |
| mGal | milligal |
| Mgd | million gallons per day |
| mi. | mile |
| $mi.^2$ | square miles |
| min | minute |

HAR SUP 1.1-5

**Table 1.1-201 (Sheet 13 of 24)**
**Acronyms and Abbreviations Used in the FSAR**

| Acronym/Abbreviation | Definition |
|---|---|
| Mg | milligram |
| Ml | milliliter |
| ml/g | milliliters per gram |
| Mn-54 | manganese isotope 54 |
| Mn-56 | manganese isotope 56 |
| Mm | millimeter |
| MM | Modified Mercalli |
| Mm/h | millimeters per hour |
| Mm/yr | millimeters per year |
| MMI | Modified Mercalli Intensity |
| MMWG | Multiregional Modeling Working Group |
| MPa | megaPascal |
| mph | miles per hour |
| MPSSZ | Middleton Place-Summerville seismic zone |
| MSHA | Mine Safety and Health Administration |
| msl | mean seal level |
| MSPI | mitigating systems performance indicators |
| mrad | millirad |
| mrem/yr | millirem per year |
| MVA | megavoltampere |
| m.y. | million years |
| N | SPT blowcount |

HAR SUP 1.1-5

**Table 1.1-201 (Sheet 14 of 24)**
**Acronyms and Abbreviations Used in the FSAR**

| Acronym/Abbreviation | Definition |
|---|---|
| NA, N/A | not applicable |
| Na | not available |
| NAAQS | national ambient air quality standards |
| NAMAG | North American Magnetic Anomaly Group |
| NCCGIA | North Carolina Center for Geographic Information and Analysis |
| NCDC | National Climatic Data Center |
| NCDENR | North Carolina Department of Environment and Natural Resources |
| NCDOC | North Carolina Department of Commerce |
| NCDOT | North Carolina Department of Transportation |
| NCDWR | North Carolina Department of Water Resources |
| NCEDC | Northern California Earthquake Data Center |
| NCEER | National Center for Earthquake Engineering Research |
| NCGS | North Carolina Geological Survey |
| NCWRC | North Carolina Wildlife Resources Commission |
| ND | no data available/ no data recorded for parameter |
| NDE | non-destructive examination |
| NERC | North American Reliability Electric Council |
| NESC | National Electric Safety Code |
| NFL | Nutbush Fall Line |
| NGA | Next Generation Attenuation |

HAR SUP 1.1-5

**Table 1.1-201 (Sheet 15 of 24)**
**Acronyms and Abbreviations Used in the FSAR**

| Acronym/Abbreviation | Definition |
|---|---|
| NGD&C | Nuclear Generation Development and Construction |
| NGG | Nuclear Generation Group |
| NGVD29 | National Geodetic Vertical Datum of 1929 |
| NHVRy | New Hope Valley Railway |
| NIOSH | National Institute for Occupational Safety and Health |
| NIST | National Institute of Standards and Technology |
| NLO | non-licensed operator |
| N-m | Newton-meter |
| NMSZ | New Madrid Seismic Zone |
| NOAA | National Oceanic and Atmospheric Administration |
| N.O.S | not otherwise specified |
| NRCS | U.S. Department of Agriculture, Natural Resources Conservation Service |
| N-S | north-south |
| NS | Non-seismic |
| NSA | Nuclear Safety Assurance |
| NVLAP | National Voluntary Laboratory Accreditation Program |
| NWS | National Weather Service |
| OBE | Operating Basis Earthquake |
| OCL | Operational Counterpart link |
| OCL | Operations Center line |
| ODCM | Off-Site Dose Calculation Manual |

HAR SUP 1.1-5

**Table 1.1-201 (Sheet 16 of 24)**
**Acronyms and Abbreviations Used in the FSAR**

| Acronym/Abbreviation | Definition |
|---|---|
| OJT | on-the-job training |
| OM | Operations and Maintenance |
| OSC | Operations Support Center |
| PABX | Private Automatic Branch Exchange |
| PBX | Private Branch Exchange |
| PAW | Plasma Arc Welding |
| pcf | pounds per cubic foot |
| PCP | Process Control Program |
| PE&RAS | Performance Evaluation and Regulatory Affairs Section |
| PEC | Progress Energy Carolinas, Inc. |
| PGA | peak ground acceleration |
| PGN | Progress Energy, Inc. |
| PGP | Procedure Generation Package |
| PLT | point-load test |
| $PM_{2.5}$ | particulate matter of 2.5 µm and smaller |
| $PM_{10}$ | particulate matter of 10 µm and smaller |
| PMCL | Protective Measures Counterpart Link |
| PMF | probable maximum flood |
| PMH | probable maximum hurricane |
| PMT | pressure meter test |
| PMWP | probable maximum winter precipitation |
| POR | period of record |

HAR SUP 1.1-5

**Table 1.1-201 (Sheet 17 of 24)**
**Acronyms and Abbreviations Used in the FSAR**

| Acronym/Abbreviation | Definition |
|---|---|
| ppsm | people per square mile |
| psf | pounds per square foot |
| PS-ITAAC | Physical Security-ITAAC |
| PSHA | probabilistic seismic hazard analysis |
| psi | pounds per square inch |
| psi/sec | pounds per square inch per second |
| PTAC | Plant Transmission Activities Coordinator |
| PTRWA | Piedmont Triad Regional Water Authority |
| PT&O | Plant Test and Operation |
| pu | per unit |
| PZR | Pressurizer |
| Qal | Quaternary alluvium |
| QAPD | Quality Assurance Program Description |
| QAPP | Quality Assurance Project Plan |
| QC | Quality Control |
| QMS | Quality Management System |
| R0 | extremely weak rock |
| R1 | very weak rock |
| R2 | weak rock |
| R3 | medium weak rock |
| R4 | strong rock |
| RAT | Reserve Auxiliary Transformer |

HAR SUP 1.1-5

**Table 1.1-201 (Sheet 18 of 24)**
**Acronyms and Abbreviations Used in the FSAR**

| Acronym/Abbreviation | Definition |
|---|---|
| Rb-Sr | rubidium-strontium |
| RCA | Radiological Controlled Area |
| RCP | reactor coolant pump |
| RDU | Raleigh-Durham International Airport |
| RE | reference (controlling) earthquake |
| RIS | Regulatory Issue Summary |
| RIS | reservoir-induced seismicity |
| RMR | Rock Mass Rating |
| RMS | root-mean-square |
| RND | Rondout Associates |
| RO | Reactor Operator |
| RP | radiation protection |
| RPT | Radiation Protection Technician |
| RQD | rock quality designation |
| RSCL | Reactor Safety Counterpart Link |
| RSO | Release for System Operation |
| RT | radiography techniques |
| RTDP | Revised Thermal Design Procedure |
| RTH | Rock Testing Handbook |
| RTNSS | Regulatory Treatment of Non-Safety Systems |
| RTP | Research Triangle Park |

HAR SUP 1.1-5

**Table 1.1-201 (Sheet 19 of 24)**
**Acronyms and Abbreviations Used in the FSAR**

| Acronym/Abbreviation | Definition |
|---|---|
| RTO | Regional Transmission Organization |
| RWP | Radiation Work Permit |
| $S_{hmax}$ | maximum horizontal stress axis |
| $S_{hmin}$ | minimum horizontal stress axis |
| S-SO | Superintendent – Shift Operations |
| SAMDA | Severe Accident Mitigation Design Alternatives |
| SAMG | Severe Accident Management Guidance |
| SAMSON | Solar and Meteorological Surface Observation Network |
| SAW | Submerged Arc Welding |
| SASW | spectral analysis of surface waves |
| SBPF | South Borrow Pit fault |
| SCBA | self-contained breathing apparatus |
| SC DOT | South Carolina Department of Transportation |
| $sec/m^3$ | seconds per cubic meter |
| scfs | standard cubic feet per second |
| SCO | State Climate Office of North Carolina |
| SCR | stable continental region |
| SCS | Sanford composite segment |
| SDP | Significance Determination Process |
| SEI/ASCE | Structural Engineering Institute/American Society of Civil Engineers |

HAR SUP 1.1-5

**Table 1.1-201 (Sheet 20 of 24)**
**Acronyms and Abbreviations Used in the FSAR**

| Acronym/Abbreviation | Definition |
|---|---|
| SERC | Southeastern Electric Reliability Corporation |
| Site fault | also known as Harris fault |
| SIWP | Site Investigation Workplan |
| SGMP | Steam Generator Management Program |
| SLAR | side-looking airborne radar |
| SM | Shift Manager |
| SMAW | Shielded Metal Arc Welding |
| SNC | Southern Nuclear Company |
| $SO_2$ | sulphur dioxide |
| SOG | Seismic Owners Group |
| SPN | shotpoint number |
| SPT | standard penetration testing |
| sq. ft. | square foot |
| SR1134 | Shearon Harris Road, NC State Road 1134 |
| SRO | Senior Reactor Operator |
| SRTM | Shuttle Radar Topography Mission |
| SSC | Structures, Systems, and Components |
| SSHAC | Senior Seismic Hazard Analysis Committee |
| SS-ITAAC | Site-Specific ITAAC |
| SSS | Selective Signaling System |
| STA | Shift Technical Advisor |
| SWAP | Source Water Assessment Program |

HAR SUP 1.1-5

**Table 1.1-201 (Sheet 21 of 24)**
**Acronyms and Abbreviations Used in the FSAR**

| Acronym/Abbreviation | Definition |
|---|---|
| TE | equivalent period of completeness |
| TEDE | Total Effective Dose Equivalent |
| TFI | Technical/Facilitator/Integrator |
| TIP | Trial Implementation Program |
| TLD | thermoluminescent dosimeter |
| TNT | Trinitrotoluene |
| TOC | top of casing |
| Trcc | conglomerate |
| Trcs | sandstone |
| Trcs/c | sandstone with interbedded conglomerate |
| Trcs/s | siltstone with interbedded sandstone |
| Trcs/si1 | sandstone and interbedded siltstone |
| Trcs/si2 | sandstone with interbedded siltstone |
| Trcsc | pebbly sandstone |
| Trcsi/s | Siltstone w/interbedded sandstone (finer grained and more bioturbated than Trcs/s) |
| TS | Technical Specification(s) |
| TSO | Transmission System Operator |
| TSP | Transmission System Provider |
| TVA | Tennessee Valley Authority |
| TWTT | two-way travel time |
| UC | unconfined compression |

HAR SUP 1.1-5

**Table 1.1-201 (Sheet 22 of 24)**
**Acronyms and Abbreviations Used in the FSAR**

| Acronym/Abbreviation | Definition |
|---|---|
| UCS | unconfined compressive strength |
| UCSS | updated Charleston seismic source |
| UHRS | uniform hazard response spectrum |
| TSO | Transmission System Operator |
| TSP | Transmission System Provider |
| TVA | Tennessee Valley Authority |
| TWTT | two-way travel time |
| UC | unconfined compression |
| UCS | unconfined compressive strength |
| UCSS | updated Charleston seismic source |
| UHRS | uniform hazard response spectrum |
| U-Pb | uranium-lead |
| UHS | ultimate heat sink |
| USACE | U.S. Army Corps of Engineers |
| USBR | U.S. Department of the Interior, Bureau of Reclamation |
| USCS | Unified Soil Classification System |
| USDA | U. S. Department of Agriculture |
| USGS | U. S. Geological Survey |
| UT | ultrasonic techniques |
| UU | unconsolidated-undrained |
| V/H | vertical to horizontal |

HAR SUP 1.1-5

**Table 1.1-201 (Sheet 23 of 24)**
**Acronyms and Abbreviations Used in the FSAR**

| Acronym/Abbreviation | Definition |
|---|---|
| V | Volt |
| $V_P$ | compressional wave velocity |
| $V_S$ | shear wave velocity |
| VACAR | Virginia-Carolinas Reliability Subregion |
| V&V | Verification and Validation |
| VP-NP&C | Vice President – Nuclear Projects and Construction |
| w | Water |
| WAC | Waste Acceptance Criteria |
| WCC | Woodward-Clyde Consultants |
| WEC | Westinghouse Electric Company |
| Westinghouse | Westinghouse Electric Company, LLC |
| WGC | Weston Geophysical |
| Wo | open water |
| WsB | White Store sandy loam on slopes of 2 to 6 percent |
| WsC | White Store sandy loam on slopes of 6 to 10 percent |
| WsC2 | White Store sandy loam on slopes of 6 to 10 percent is eroded |
| WsE | White Store sandy loam occurs on slopes of 10 to 20 percent |
| WUS | western United States |
| Wy | Worsham sandy loam |
| ZRA | zone of river anomalies |

HAR SUP 1.1-5

**Table 1.1-201 (Sheet 24 of 24)**
**Acronyms and Abbreviations Used in the FSAR**

| Acronym/Abbreviation | Definition |
|---|---|
| ZRA-C | central zone of river anomalies |
| ZRA-N | northern zone of river anomalies |
| ZRA-S | southern zone of river anomalies |

STD SUP 1.1-3

**Table 1.1-202 (Sheet 1 of 2)**
**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.,<br><br>STD DEP 9.2-1, or<br>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.,<br><br>NPP DEP 9.2-2, or<br>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 1.8-201, e.g.,<br><br>STD COL 4.4-1, or<br>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 1.8-201, e.g.,<br><br>NPP COL 4.4-1, or<br>NPP COL 19.59.10.5-1 |
| NPP CDI<br>or<br>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 1.1-3

**Table 1.1-202 (Sheet 2 of 2)**
**Left Margin Annotations**

| Margin Notation | Margin Notation |
|---|---|
| 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.,<br><br>STD SUP 1.10-1, or<br>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.,<br><br>NPP SUP 3.10-1, or<br>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. |

# 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 entitled “Site Plan” with the following text.

**Site Plan**

HAR SUP 1.2-1
HAR COL 3.3-1
HAR 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 site plan for HAR 2 and 3 is shown on Figure 1.1-201. Principal structures and facilities, parking areas, and roads are illustrated. Orientation of the two AP1000 units is such that "plant north" faces 65 degrees east from true north. Unless otherwise noted, directions in this FSAR are based on true north. Similarly, design plant grade in the DCD is 100’-0”, whereas the nominal plant grade elevation for design is NGVD 29 Elevation 261’-0”; therefore, DCD elevations are to be increased by 161 ft. to be actual site elevations. The nominal plant grade floor elevation for design is NGVD 29 Elevation 261’-0” and corresponds to DCD Elevation 100’-0”. 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 consist of a natural draft cooling tower, a pump basin, circulating water pumps, and associated piping. The cooling towers are located northeast of the reactors. The circulating pumps are located near each cooling tower. The pumps circulate the cooling water from the pump basin to the main condensers and back to the respective cooling tower.

The raw water pump house is located on the Thomas Creek branch of the Harris Reservoir east of HAR 2 and 3.

Road access to the site is from the north.

Railway access to the plant is provided by a Progress Energy rail spur that connects to the CSX Railroad (Subsection 2.2.2.6).

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

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## 1.3 COMPARISONS WITH SIMILAR FACILITY DESIGNS

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

# 1.4 IDENTIFICATION OF 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

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

HAR SUP 1.4-1

Progress Energy Carolinas, Inc., (PEC) is the applicant for Combined Licenses for Shearon Harris Nuclear Power Plant Units 2 and 3 (HAR 2 and 3) and will own and operate HAR 2 and 3. PEC is a subsidiary of Progress Energy, Inc., (PGN), and an energy company based in Raleigh, North Carolina. PEC provides electricity and related services in portions of North Carolina and South Carolina. The company serves more than 1.4 million customers in the region.

Carolina Power & Light Company (CP&L), now doing business as PEC began building nuclear power plants in the 1960's and has operated nuclear power plants since 1971. Currently, PGN has four nuclear sites consisting of five operating units (three sites operated by PEC and one site operated by Progress Energy Florida, Inc.).

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

Contractors participating in the preparation of the COL Application are addressed in Subsection 1.4.2.8.

HAR SUP 1.4-2

Not all participants have been identified at this time. Changes to this section are required to identify additional participants, principal consultants, outside service organizations, or contractors for design, construction, and operation of HAR 2 and 3. To address the identification of additional participants, a Combined License Condition is presented in a separate document submitted as part of this application.

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Add the following new subsection after DCD Subsection 1.4.2.7:

HAR 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 HAR 2 and 3.

1.4.2.8.1 CH2M Hill, Inc.

CH2M Hill, Inc. is a full-service engineering, consulting, construction, and operations firm. They have experience in providing services in siting, licensing, site safety analysis reports, environmental reports, and emergency plans. CH2M Hill has demonstrated expertise with all aspects of nuclear facility development.

CH2M Hill, Inc has provided siting, environmental, emergency planning, site redress, geotechnical field investigation, geological, and seismological services to prepare the COL application for PEC.

1.4.2.8.2 Sargent & Lundy, LLC

Sargent & Lundy, LLC is a full-service architect-engineering firm with considerable nuclear plant expertise. The firm has demonstrated and proven capabilities in the design and licensing of nuclear plants both domestically and overseas. Sargent & Lundy, LLC has engineered, designed, planned, evaluated, and managed large, complex nuclear projects including 30 nuclear units.

Sargent & Lundy, LLC has provided engineering, management, and consulting services to prepare the COL application for PEC. This included project management and engineering services, developing Final Safety Analysis Report sections, developing the security plan, and preparing the COL application.

1.4.2.8.3 WorleyParsons Resources and Energy

WorleyParsons Resources and Energy is a full-service engineering firm with considerable nuclear plant expertise. The firm has demonstrated and proven capabilities in the design and licensing of nuclear plants both domestically and overseas. WorleyParsons Resources and Energy has engineered, designed, planned, evaluated, and managed large, complex nuclear projects including 16 nuclear units and been involved in the development of an early site permit.

WorleyParsons Resources and Energy has provided engineering and consulting services to prepare the COL application for PEC. This included project management and engineering services, developing Final Safety Analysis Report sections, and preparing the COL application.

## 1.5 REQUIREMENTS FOR FURTHER TECHNICAL INFORMATON

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.

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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.

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STD SUP 1.6-1

**Table 1.6-201**
**Additional Material Referenced**

| Author/ Report Number | Title | Revision | FSAR Section | Document Transmittal | ADAMS Accession Number |
|---|---|---|---|---|---|
| Westinghouse / APP-GW-GL-700 | AP1000 Design Control Document | 17 | All | September 2008 | TBD |
| NEI 07-08 | Generic FSAR Template Guidance for Ensuring That Occupational Radiation Exposures Are As Low As Is Reasonably Achievable (ALARA) | 1 | 12.1 | February 2008 | ML080640459 |
| NEI 07-03 | Generic FSAR Template Guidance for Radiation Protection Program Description | 5 | Appendix 12AA | March 2008 | ML080860403 |
| NEI 06-13A | Technical Report on a Template for an Industry Training Program Description | 1 | 13.2 | March 2008 | ML080910051 |
| NEI 07-02A[(a)] | Generic FSAR Template Guidance for Maintenance Rule Program Description for Plants Licensed Under 10 CFR Part 52 | 0 | 17.6 | March 2008 | ML080910149 |

a) NEI 07-02 Revision 3 is approved by the NRC. NEI 07-02A includes the approved Revision 3, the NRC safety evaluation, and corresponding responses to the NRC Request for Additional Information.

(A) Denotes NRC approved document. Other listed documents are under NRC review.

# 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.

HAR 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.

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HAR 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 | 10.4-201, 10.4-202 |
| ZBS | Transmission Switchyard and Off-Site Power System | 8.2 | 8.2-201, 8.2-202, 8.2-203, 8.2-204 |
| HLMWS | Harris Lake Makeup Water System | 9.2.12 | Described in text. |

# 1.8 INTERFACES FOR STANDARD DESIGN

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

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

HAR SUP 1.8-1

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.

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HAR 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 will be 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.

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HAR SUP 1.8-1

**Table 1.8-201**
**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 Regulatory Guide 1.206, as well as NUREG-0800. See Note 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, 9.2.14, 9.5.1.8, 9.5.1.9, 13.1, 13.1.1, 13.1.4, 13.5, 13.5.3, 13.7, 17.5, 17.6, 17.7, 17.8 |

Note a: The Departure is standard for AP1000 COLAs but the applicable FSAR Sections or Subsections may vary in the AP1000 Subsequent COLAs.

HAR SUP 1.8-2

**Table 1.8-202 (Sheet 1 of 20)**
**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<br>1.1.7 | A |
| 1.9-1 | Regulatory Guide Conformance | 1.9.1.5 | 1.9.1<br>1.9.1.1<br>1.9.1.2<br>1.9.1.3<br>1.9.1.4<br>1.9.1.5<br>Appendix 1A<br>Appendix 1AA | A |
| 1.9-2 [(a)] | Bulletins and Generic Letters | 1.9.5.5 | 1.9.5.5 | A |
| 1.9-3 [(a)] | Unresolved Safety Issues and Generic Safety Issues | Table 1.9-2<br>1.9.4.1 | 1.9.4.1<br>1.9.4.2.3 | A |
| 2.1-1 | Geography and Demography | 2.1.1 | 2.1 | A |
| 2.2-1 | Identification of Site-Specific Potential Hazards | 2.2.1 | 2.2 | A |
| 2.3-1 | Regional Climatology | 2.3.6.1 | 2.3.1<br>2.3.6.1 | A |

HAR SUP 1.8-2

**Table 1.8-202 (Sheet 2 of 20)**
**COL Item Tabulation**

| COL Item | Subject | DCD Subsection | FSAR Section(s) | COL Applicant (A), Holder (H), Or Both (B) |
|---|---|---|---|---|
| 2.3-2 | Local Meteorology | 2.3.6.2 | 2.3.2<br>2.3.6.2 | A |
| 2.3-3 | Onsite Meteorological Measurements Program | 2.3.6.3 | 2.3.3<br>2.3.6.3 | A |
| 2.3-4 | Short-Term Diffusion Estimates | 2.3.6.4 | 2.3.4<br>2.3.6.4<br>15.6.5.3.7.3<br>15A.3.3 | A |
| 2.3-5 | Long-Term Diffusion Estimates | 2.3.6.5 | 2.3.5<br>2.3.6.5 | A |
| 2.4-1 | Hydrological Description | 2.4.1.1 | 2.4.1.2<br>2.4.15.1 | A |
| 2.4-2 | Floods | 2.4.1.2 | 2.4.2<br>2.4.3<br>2.4.4<br>2.4.5<br>2.4.6<br>2.4.15.2 | A |
| 2.4-3 | Cooling Water Supply | 2.4.1.3 | 2.4.1<br>2.4.15.3 | A |

HAR SUP 1.8-2

**Table 1.8-202 (Sheet 3 of 20)**
**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<br>2.4.15.4 | A |
| 2.4-5 | Accidental Release of Liquid Effluents into Ground and Surface Water | 2.4.1.5 | 2.4.13<br>2.4.15.5 | A |
| 2.4-6 | Flood Protection Emergency Operation Procedures | 2.4.1.6 | 2.4.10<br>2.4.14<br>2.4.15.6 | A |
| 2.5-1 | Basic Geologic and Seismic Information | 2.5.1 | 2.5.1<br>2.5.4<br>2.5.4.1<br>2.5.6.1<br>Appendix 2AA<br>Appendix 2BB | A |
| 2.5-2 | Site Seismic and Tectonic Characteristics Information | 2.5.2.1 | 2.5.2<br>2.5.4<br>2.5.4.7<br>2.5.4.9<br>2.5.6.2<br>Appendix 2AA | A |

HAR SUP 1.8-2

**Table 1.8-202 (Sheet 4 of 20)**
**COL Item Tabulation**

| COL Item | Subject | DCD Subsection | FSAR Section(s) | COL Applicant (A), Holder (H), Or Both (B) |
|---|---|---|---|---|
| 2.5-3 | Geoscience Parameters | 2.5.2.3 | 2.5.2.6<br>2.5.4<br>2.5.4.11<br>2.5.6.3 | A |
| 2.5-4 | Surface Faulting | 2.5.3 | 2.5.3<br>2.5.6.4 | A |
| 2.5-5 | Site and Structures | 2.5.4.6.1 | 2.5.4<br>2.5.4.1<br>2.5.4.3<br>2.5.6.5<br>Appendix 2BB | A |
| 2.5-6 | Properties of Underlying Materials | 2.5.4.6.2 | 2.5.4<br>2.5.4.2<br>2.5.4.3<br>2.5.4.4<br>2.5.4.6<br>2.5.4.7<br>2.5.4.10.2<br>2.5.6.6<br>Appendix 2BB | A |

HAR SUP 1.8-2

**Table 1.8-202 (Sheet 5 of 20)**
**COL Item Tabulation**

| COL Item | Subject | DCD Subsection | FSAR Section(s) | COL Applicant (A), Holder (H), Or Both (B) |
|---|---|---|---|---|
| 2.5-7 | Excavation and Backfill | 2.5.4.6.3 | 2.5.4<br>2.5.4.5<br>2.5.4.10.4<br>2.5.4.12<br>2.5.6.7 | A |
| 2.5-8 | Ground Water Conditions | 2.5.4.6.4 | 2.5.4<br>2.5.4.6<br>2.5.6.8 | A |
| 2.5-9 | Liquefaction Potential | 2.5.4.6.5 | 2.5.4<br>2.5.4.8<br>2.5.6.9 | A |
| 2.5-10 | Bearing Capacity | 2.5.4.6.6 | 2.5.4<br>2.5.4.10<br>2.5.6.10 | A |
| 2.5-11 | Earth Pressures | 2.5.4.6.7 | 2.5.4<br>2.5.4.10.4<br>2.5.4.11<br>2.5.6.11 | A |

HAR SUP 1.8-2

**Table 1.8-202 (Sheet 6 of 20)**
**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 Facilities | 2.5.4.6.9 | 2.5.4<br>2.5.4.10.3<br>2.5.6.12 | A |
| 2.5-13 | Subsurface Instrumentation | 2.5.4.6.10 | 2.5.4<br>2.5.4.10.3.7<br>2.5.6.13 | A |
| 2.5-14 | Stability of Slopes | 2.5.5 | 2.5.5<br>2.5.6.14 | A |
| 2.5-15 | Embankments and Dams | 2.5.6 | 2.4.4<br>2.5.5<br>2.5.6.15 | A |
| 2.5-16 | Settlement of Nuclear Island | 2.5.4.6.11 | 2.5.4<br>2.5.4.10.3<br>2.5.6.16 | A |
| 3.3-1 | Wind and Tornado Site Interface Criteria | 3.3.3 | 1.2.2<br>2.2, 2.2.1<br>3.3.1.1<br>3.3.2.1<br>3.3.2.3<br>3.3.3<br>3.5.1.5<br>3.5.1.6 | A |

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**Table 1.8-202 (Sheet 7 of 20)**
**COL Item Tabulation**

| COL Item | Subject | DCD Subsection | FSAR Section(s) | COL Applicant (A), Holder (H), Or Both (B) |
|---|---|---|---|---|
| 3.4-1 | Site-Specific Flooding Hazards Protective Measures | 3.4.3 | 3.4.1.3<br>3.4.3 | A |
| 3.5-1 | External Missile Protection Requirements | 3.5.4 | 1.2.2<br>2.2<br>2.2.1<br>3.3.2.1<br>3.3.2.3<br>3.3.1.1<br>3.5.1.5<br>3.5.1.6<br>3.5.4 | A |
| 3.6-1 | Pipe Break Hazards Analysis | 3.6.4.1 | 3.6.4.1 | H |
| 3.6-4 | Primary System Inspection Program for Leak-Before-Break Piping | 3.6.4.4 | 3.6.4.4 | A |
| 3.7-1 | Seismic Analysis of Dams | 3.7.5.1 | 3.7.2.12<br>3.7.5.1 | A |
| 3.7-2 | Post-Earthquake Procedures | 3.7.5.2 | 3.7.4.4<br>3.7.5.2 | A |
| 3.7-3 | Seismic Interaction Review | 3.7.5.3 | 3.7.5.3 | H |

HAR SUP 1.8-2

**Table 1.8-202 (Sheet 8 of 20)**
**COL Item Tabulation**

| COL Item | Subject | DCD Subsection | FSAR Section(s) | COL Applicant (A), Holder (H), Or Both (B) |
|---|---|---|---|---|
| 3.7-4 | Reconciliation of Seismic Analyses of Nuclear Island Structures | 3.7.5.4 | 3.7.5.4 | H |
| 3.7-5 | Location of Free-Field Acceleration Sensor | 3.7.5.5 | 3.7.4.2.1<br>3.7.5.5 | A |
| 3.9-2 | Design Specification and Reports | 3.9.8.2 | 3.9.8.2 | H |
| 3.9-3 | Snubber Operability Testing | 3.9.8.3 | 3.9.3.4.4<br>3.9.8.3 | A |
| 3.9-4 | Valve Inservice Testing | 3.9.8.4 | 3.9.6<br>3.9.6.2.2<br>3.9.6.2.4<br>3.9.8.4 | A |
| 3.9-5 | Surge Line Thermal Monitoring | 3.9.8.5 | 3.9.3.1.2 | A |
| 3.11-1 | Equipment Qualification File | 3.11.5 | 3.11.5 | H |
| 4.4-2 | Confirm Assumptions for Safety Analyses DNBR Limits | 4.4.7.2 | 4.4.7 | H |
| 5.2-1 | ASME Code and Addenda | 5.2.6.1 | 5.2.1.1<br>5.2.6.1 | A |

HAR SUP 1.8-2

**Table 1.8-202 (Sheet 9 of 20)**
**COL Item Tabulation**

| COL Item | Subject | DCD Subsection | FSAR Section(s) | COL Applicant (A), Holder (H), Or Both (B) |
|---|---|---|---|---|
| 5.2-2 | Plant Specific Inspection Program | 5.2.6.2 | 5.2.4<br>5.2.4.1<br>5.2.4.3.1<br>5.2.4.3.2<br>5.2.4.4<br>5.2.4.5<br>5.2.4.6<br>5.2.4.8<br>5.2.4.9<br>5.2.4.10<br>5.2.6.2 | A |
| 5.3-1 | Reactor Vessel Pressure – Temperature Limit Curves | 5.3.6.1 | 5.3.6.1 | H |
| 5.3-2 | Reactor Vessel Materials Surveillance Program | 5.3.6.2 | 5.3.2.6<br>5.3.6.2 | A |
| 5.3-4 | Reactor Vessel Materials Properties Verification | 5.3.6.4.1 | 5.3.6.4.1 | H |
| 5.4-1 | Steam Generator Tube Integrity | 5.4.15 | 5.4.2.5<br>5.4.15 | A |
| 6.1-1 | Procedure Review for Austenitic Stainless Steels | 6.1.3.1 | 6.1.1.2<br>6.1.3.1 | A |

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**Table 1.8-202 (Sheet 10 of 20)**
**COL Item Tabulation**

| COL Item | Subject | DCD Subsection | FSAR Section(s) | COL Applicant (A), Holder (H), Or Both (B) |
|---|---|---|---|---|
| 6.1-2 | Coating Program | 6.1.3.2 | 6.1.2.1.6<br>6.1.3.2 | A |
| 6.2-1 | Containment Leak Rate Testing | 6.2.6 | 6.2.5.1<br>6.2.5.2.2<br>6.2.6 | A |
| 6.3-1 | Containment Cleanliness Program | 6.3.8.1 | 6.3.8.1 | A |
| 6.4-1 | Local Hazardous Gas Services and Monitoring | 6.4.7 | 6.4.4.2<br>6.4.7 | A |
| 6.4-2 | Procedures for Training for Control Room Habitability | 6.4.7 | 6.4.3<br>6.4.7 | A |
| 6.6-1 | Inspection Programs | 6.6.9.1 | 6.6<br>6.6.1<br>6.6.9.1 | A |
| 6.6-2 | Construction Activities | 6.6.9.2 | 6.6.2<br>6.6.9.2 | A |

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**Table 1.8-202 (Sheet 11 of 20)**
**COL Item Tabulation**

| COL Item | Subject | DCD Subsection | FSAR Section(s) | COL Applicant (A), Holder (H), Or Both (B) |
|---|---|---|---|---|
| 8.2-1 | Offsite Electrical Power | 8.2.5 | 8.2.1<br>8.2.1.1<br>8.2.1.1.1<br>8.2.1.1.2<br>8.2.1.2<br>8.2.1.3<br>8.2.1.4<br>8.2.5 | A |
| 8.2-2 | Technical Interfaces | 8.2.5 | 8.2.1.2.1<br>8.2.2<br>8.2.5 | A |
| 8.3-1 | Grounding and Lightning Protection | 8.3.3 | 8.3.1.1.7<br>8.3.1.1.8<br>8.3.3 | A |
| 8.3-2 | Onsite Electrical Power Plant Procedures | 8.3.3 | 8.3.1.1.2.4<br>8.3.1.1.6<br>8.3.2.1.4<br>8.3.3 | A |
| 9.1-5 | Inservice Inspection Program of Cranes | 9.1.6.5 | 9.1.4.4<br>9.1.5.4<br>9.1.6 | A |

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**Table 1.8-202 (Sheet 12 of 20)**
**COL Item Tabulation**

| COL Item | Subject | DCD Subsection | FSAR Section(s) | COL Applicant (A), Holder (H), Or Both (B) |
|---|---|---|---|---|
| 9.1-6 | Radiation Monitor | 9.1.6.6 | 9.1.4.3.8<br>9.1.5.3<br>9.1.6 | A |
| 9.1-7 | Metamic Monitoring Program | 9.1.6.7 | 9.1.6 | H |
| 9.2-1 | Potable Water | 9.2.11.1 | 9.2.5.2.1<br>9.2.5.3<br>9.2.13.1 | A |
| 9.2-2 | Waste Water Retention Basins | 9.2.11.2 | 9.2.9.2.1<br>9.2.9.2.2<br>9.2.13.2 | A |
| 9.3-1 | Air Systems (NUREG-0933 Issue 43) | 9.3.7 | 9.3.7 | A |
| 9.4-1 | Ventilation Systems Operations | 9.4.12 | 9.4.1.4<br>9.4.7.4<br>9.4.12 | A |

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**Table 1.8-202 (Sheet 13 of 20)**
**COL Item Tabulation**

| COL Item | Subject | DCD Subsection | FSAR Section(s) | COL Applicant (A), Holder (H), Or Both (B) |
|---|---|---|---|---|
| 9.5-1 | Qualification Requirements for Fire Protection Program | 9.5.1.8.1 | 9.5.1.6<br>9.5.1.8<br>9.5.1.8.1<br>9.5.1.8.1.2<br>9.5.1.8.2<br>9.5.1.8.3<br>9.5.1.8.4<br>9.5.1.8.5<br>9.5.1.8.6<br>9.5.1.8.7<br>9.5.1.9.1<br>13.1.1.2.10<br>13.1.2.1.3.9 | A |
| 9.5-2 | Fire Protection Analysis Information | 9.5.1.8.2 | 9.5.1.9.2<br>9A.3.3.1 through 9A.3.3.8 | A |
| 9.5-3 | Regulatory Conformance | 9.5.1.8.3 | 9.5.1.8.8<br>9.5.1.8.1.1<br>9.5.1.8.9<br>9.5.1.9.3<br>9A.3.3 | A |
| 9.5-4 | NFPA Exceptions | 9.5.1.8.4 | 9.5.1.9.4<br>9.5.1.8.1.1 | A |

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**Table 1.8-202 (Sheet 14 of 20)**
**COL Item Tabulation**

| COL Item | Subject | DCD Subsection | FSAR Section(s) | COL Applicant (A), Holder (H), Or Both (B) |
|---|---|---|---|---|
| 9.5-6 | Verification of Field Installed Fire Barriers | 9.5.1.8.6 | 9.5.1.8.6<br>9.5.1.9.6 | H |
| 9.5-8 | Establishment of Procedures to Minimize Risk for Fire Areas Breached During Maintenance | 9.5.1.8.7 | 9.5.1.9.7<br>9.5.1.8.1.2.a.3.vi | A |
| 9.5-9 | Offsite Interfaces | 9.5.2.5.1 | 9.5.2.2.3.1<br>9.5.2.5.1 | A |
| 9.5-10 | Emergency Offsite Communications | 9.5.2.5.2 | 9.5.2.2.3.2<br>9.5.2.5.2 | A |
| 9.5-11 | Security Communications | 9.5.2.5.3 | 9.5.2.5.3<br>Physical Security Plan | A |
| 9.5-13 | Fuel Degradation Protection | 9.5.4.7.2 | 9.5.4.5.2<br>9.5.4.7.2 | A |
| 10.1-1 | Erosion-Corrosion Monitoring | 10.1.3 | 10.1.3.1 | H |
| 10.2-1 | Turbine Maintenance and Inspection | 10.2.6 | 10.2.6 | H |
| 10.4-1 | Circulating Water Supply | 10.4.12.1 | 10.4.5.2.1<br>10.4.5.2.2<br>10.4.5.5<br>10.4.12.1 | A |

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**Table 1.8-202 (Sheet 15 of 20)**
**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 Auxiliary Steam System Chemistry Control | 10.4.12.2 | 10.4.7.2.1<br>10.4.12.2 | A |
| 10.4-3 | Potable Water | 10.4.12.3 | 10.4.5.2.1<br>10.4.12.3 | A |
| 11.2-1 | Liquid Radwaste Processing by Mobile Equipment | 11.2.5.1 | 11.2.1.2.5.2<br>11.2.5.1 | A |
| 11.2-2 | Cost Benefit Analysis of Population Doses | 11.2.5.2 | 11.2.3.5<br>11.2.5.2 | A |
| 11.3-1 | Cost Benefit Analysis of Population Doses | 11.3.5.1 | 11.3.3.4<br>11.3.5.1 | A |
| 11.4-1 | Solid Waste Management System Process Control Program | 11.4.6 | 11.4.6 | A |
| 11.5-1 | Plant Offsite Dose Calculation Manual (ODCM) | 11.5.7 | 11.5.7 | A |

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**Table 1.8-202 (Sheet 16 of 20)**
**COL Item Tabulation**

| COL Item | Subject | DCD Subsection | FSAR Section(s) | COL Applicant (A), Holder (H), Or Both (B) |
|---|---|---|---|---|
| 11.5-2 | Effluent Monitoring and Sampling | 11.5.7 | 11.5.2.4<br>11.5.4.1<br>11.5.4.2<br>11.5.6.5<br>11.5.7 | A |
| 11.5-3 | 10 CFR 50, Appendix I | 11.5.7 | 11.2.3.5<br>11.3.3.4<br>11.5.7 | A |
| 12.1-1 | ALARA and Operational Policies | 12.1.3 | 12.1<br>12.1.3<br>Appendix 12AA | A |
| 12.2-1 | Additional Contained Radiation Sources | 12.2.3 | 12.2.1.1.10<br>12.2.3 | A |
| 12.3-1 | Administrative Controls for Radiological Protection | 12.3.5.1 | Appendix 12AA<br>12.3.5.1 | A |
| 12.3-2 | Criteria and Methods for Radiological Protection | 12.3.5.2 | 12.3.4<br>12.3.5.2 | A |
| 12.3-3 | Groundwater Monitoring Program | 12.3.5.3 | 12.3.5.3<br>12AA.5.4.14<br>Appendix 12AA | A |

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**Table 1.8-202 (Sheet 17 of 20)**
**COL Item Tabulation**

| COL Item | Subject | DCD Subsection | FSAR Section(s) | COL Applicant (A), Holder (H), Or Both (B) |
|---|---|---|---|---|
| 12.3-4 | Record of Operational Events of Interest for Decommissioning | 12.3.5.4 | 12.3.5.4<br>12AA.5.4.15<br>Appendix 12AA | A |
| 12.5-1 | Radiological Protection Organization and Procedures | 12.5.5 | 12.5.5<br>Appendix 12AA | A |
| 13.1-1 | Organizational Structure of Combined License Applicant | 13.1.1 | 13.1<br>Appendix 13AA | A |
| 13.2-1 | Training Program for Plant Personnel | 13.2.1 | 13.2<br>13.2.1 | A |
| 13.3-1 | Emergency Planning and Communications | 13.3.1 | 13.3<br>13.3.1<br>Emergency Plan | A |
| 13.3-2 | Activation of Emergency Operations Facility | 13.3.1 | 13.3<br>13.3.1<br>Emergency Plan | A |
| 13.4-1 | Operational Review | 13.4.1 | 13.4<br>13.4.1 | A |

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**Table 1.8-202 (Sheet 18 of 20)**
**COL Item Tabulation**

| COL Item | Subject | DCD Subsection | FSAR Section(s) | COL Applicant (A), Holder (H), Or Both (B) |
|---|---|---|---|---|
| 13.5-1 | Plant Procedures | 13.5.1 | 13.5<br>13.5.2<br>13.5.3 | A |
| 13.6-1 | Security | 13.6 | 13.6 | A |
| 13.6-5 | Cyber Security Program | 13.6.1 | 13.6, 13.6.1 | H |
| 14.4-1 | Organization and Staffing | 14.4.1 | 14.2.2<br>14.4.1 | A |
| 14.4-2 | Test Specifics and Procedures | 14.4.2 | 14.4.2 | H |
| 14.4-3 | Conduct of Test Program | 14.4.3 | 14.4.3 | H |
| 14.4-4 | Review and Evaluation of Test Results | 14.4.4 | 14.2.3.2<br>14.4.4 | H |
| 14.4-5 | Testing Interface Requirements | 14.4.5 | 14.2.9.4.15<br>14.2.9.4.22 to<br>14.2.9.4.28<br>14.2.10.4.29<br>14.4.5 | A |
| 14.4-6 | First-Plant-Only and Three-Plant-Only Tests | 14.4.6 | 14.4.6 | B |

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**Table 1.8-202 (Sheet 19 of 20)**
**COL Item Tabulation**

| COL Item | Subject | DCD Subsection | FSAR Section(s) | COL Applicant (A), Holder (H), Or Both (B) |
|---|---|---|---|---|
| 15.7-1 | Consequences of Tank Failure | 15.7.6 | 15.7.3<br>15.7.6 | A |
| 16.1-1 | Technical Specification Preliminary Information | 16.1 | 16.1.1 | A |
| 16.3-1 | Procedure to Control Operability of Investment Protection Systems, Structures and Components | 16.3.2 | 16.3.1<br>16.3.2 | A |
| 17.5-1 | Quality Assurance Design Phase | 17.5.1 | 17.1<br>17.5<br>17.7 | A |
| 17.5-2 | Quality Assurance for Procurement, Fabrication, Installation, Construction and Testing | 17.5.2 | 17.5<br>17.7 | A |
| 17.5-4 | Quality Assurance Program for Operations | 17.5.4 | 17.5<br>17.7 | A |
| 17.5-8 | Operational Reliability Assurance Program Integration with Quality Assurance Program | 17.5.8 | 17.5<br>17.7 | A |
| 18.2-2 | Design of the Emergency Operations Facility | 18.2.6.2 | 18.2.1.3<br>18.2.6.2 | A |

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**Table 1.8-202 (Sheet 20 of 20)**
**COL Item Tabulation**

| COL Item | Subject | DCD Subsection | FSAR Section(s) | COL Applicant (A), Holder (H), Or Both (B) |
|---|---|---|---|---|
| 18.6-1 | Plant Staffing | 18.6.1 | 18.6<br>18.6.1<br>13.1.3<br>13.1.1.4 | A |
| 18.10-1 | Training Program Development | 18.10.1 | 13.1.1.3.2.4<br>13.2<br>18.10<br>18.10.1 | A |
| 18.14-1 | Human Performance Monitoring | 18.14 | 18.14 | A |
| 19.59.10-1 | As-Built SSC HCLPF Comparison to Seismic Margin Evaluation | 19.59.10.5 | 19.59.10.5 | H |
| 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 | B |
| 19.59.10-3 | Internal Fire and Internal Flood Analyses | 19.59.10.5 | 19.59.10.5 | H |
| 19.59.10-4 | Develop and Implement Severe Accident Management Guidance | 19.59.10.5 | 19.59.10.5 | H |
| 19.59.10-5 | Equipment Survivability | 19.59.10.5 | 19.59.10.5 | H |

COL Items 1.9-2 and 1.9-3 are un-numbered in the DCD.

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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.

STD COL 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.

STD COL 1.9-1

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. Stated conformance with the

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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. 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. 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. 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:

STD COL 1.9-1

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 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. 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. 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. 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. 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:

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:

STD SUP 1.9-1

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.

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

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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.

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1.9.4.2.3 New Generic Issues

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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 in 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.

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1.9.5.2.15 Severe Accident Mitigation Design Alternatives

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

FSAR Position:

STD SUP 1.9-2 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.

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1.9.5.5 Operational Experience

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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.

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**Table 1.9-201 (Sheet 1 of 18)**
**Regulatory Guide/FSAR Section Cross-References**

| Regulatory Guides | | FSAR Chapter, Section, or Subsection[(a)] |
|---|---|---|
| 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 |
| 1.8 | Qualification and Training of Personnel for Nuclear Power Plants (Rev. 3, May 2000) | 12.1 (NEI 07-08)<br>Appendix 12AA<br>Appendix 12AA (NEI 07-03)<br>13.1.1.4<br>13.1.3.1<br>13.2 (NEI 06-13A)<br>16 (TS 5.3.1) |
| 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)<br>16 (TS Bases 3.7.12) |
| 1.16 | Reporting of Operating Information – Appendix A Technical Specifications (Rev. 4, August 1975) | 14.2.3.2 |
| 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 |

**Table 1.9-201 (Sheet 2 of 18)**
**Regulatory Guide/FSAR Section Cross-References**

| | Regulatory Guides | | FSAR Chapter, Section, or Subsection[a] |
|---|---|---|---|
| HAR 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) | 11.5.1.2<br>11.5.4.1<br>12.3.4 |
| | 1.23 | Meteorological Monitoring Program for Nuclear Power Plants (Rev. 1, March 2007) | 2.3.2<br>2.3.2.1.1<br>2.3.2.1.7<br>2.3.3<br>2.3.3.1<br>2.3.3.1.2<br>2.3.3.1.5<br>2.3.3.1.6<br>2.3.4.1<br>Table 2.3.3-202 |
| 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<br>17.5 (QAPD IV) |
| HAR COL 1.9-1 | 1.27 | Ultimate Heat Sink for Nuclear Power Plants (Rev. 2, January 1976) | 2.3.1.2.5 |
| STD COL 1.9-1 | 1.28 | Quality Assurance Program Requirements (Design and Construction) (Rev. 3, August 1985) | Not referenced; see Appendix 1AA |
| | 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 |

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STD COL 1.9-1

| Regulatory Guides | | FSAR Chapter, Section, or Subsection[a] |
|---|---|---|
| 1.31 | Control of Ferrite Content in Stainless Steel Weld Metal (Rev. 3, April 1978) | 6.1.1.2 |
| 1.32 | Criteria for Power Systems for Nuclear Power Plants (Rev. 3, March 2004) | 16 (TS Bases 3.8.1) |
| 1.33 | Quality Assurance Program Requirements (Operation) (Rev. 2, February 1978) | 16 (TS 5.4.1) |
| 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) |
| 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)<br>16 (TS Bases 3.4.9) |
| 1.53 | Application of the Single-Failure Criterion to Nuclear Power Plant Protection Systems (Rev. 2, November 2003) | DCD discussion only; see DCD Table 1.9-1 |

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**Regulatory Guide/FSAR Section Cross-References**

| | Regulatory Guides | | FSAR Chapter, Section, or Subsection[a] |
|---|---|---|---|
| STD COL 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<br>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 |
| HAR COL 1.9-1 | 1.59 | Design Basis Floods for Nuclear Power Plants (Rev. 2, August 1977) | 2.4.2.2<br>2.4.3<br>2.4.4<br>2.4.5 |
| STD COL 1.9-1 | 1.60 | Design Response Spectra for Seismic Design of Nuclear Power Plants (Rev. 1, December 1973) | Table 2.0-201 |
| | 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) | 16 (TS Bases 3.1.8) |
| | 1.70 | Standard Format and Content of Safety Analysis Reports for Nuclear Power Plants (LWR Edition) (Rev. 3, November 1978) | 1.1.6.1 |
| | 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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**Regulatory Guide/FSAR Section Cross-References**

| | Regulatory Guides | | FSAR Chapter, Section, or Subsection[(a)] |
|---|---|---|---|
| HAR COL 1.9-1 | 1.76 | Design-Basis Tornado and Tornado Missiles for Nuclear Power Plants (Rev. 1, March 2007) | 2.3.1.2.2<br>Table 2.0-201, footnote (e) |
| STD COL 1.9-1 | 1.77 | Assumptions Used for Evaluating a Control Rod Ejection Accident for Pressurized Water Reactors (Rev 0, May 1974) | 16 (TS Bases 3.2.1)<br>16 (TS Bases 3.2.2)<br>16 (TS Bases 3.2.4)<br>16 (TS Bases 3.2.5) |
| HAR COL 1.9-1 | 1.78 | Evaluating the Habitability of a Nuclear Power Plant Control Room During a Postulated Hazardous Chemical Release (Rev. 1, December 2001) | 6.4.4.2<br>16 (TS Bases 3.7.6) |
| STD COL 1.9-1 | 1.82 | Water Sources for Long-Term Cooling Following a Loss-of-Coolant Accident (Rev. 3, November 2003) | DCD discussion only; see DCD Table 1.9-1 |
| | 1.83 | Inservice Inspection of Pressurized Water Reactor Steam Generator Tubes (Rev. 1, July 1975) | DCD discussion only; 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 |
| HAR COL 1.9-1 | 1.91 | Evaluations of Explosions Postulated To Occur on Transportation Routes Near Nuclear Power Plants (Rev. 1, February 1978) | 3.5.1.5 |

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**Regulatory Guide/FSAR Section Cross-References**

| | Regulatory Guides | | FSAR Chapter, Section, or Subsection[(a)] |
|---|---|---|---|
| STD COL 1.9-1 | 1.92 | Combining Modal Responses and Spatial Components in Seismic Response Analysis (Rev. 2, July 2006) | DCD discussion only; see DCD Table 1.9-1 |
| | 1.93 | Availability of Electric Power Sources (Rev. 0, December 1974) | 16 (TS Bases 3.8.1)<br>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) | Appendix 12AA (NEI 07-03)<br>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) | 9.5.1.8.2.2<br>Table 9.5-201<br>13.3 (Emergency Plan I.C.1) |
| HAR 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) | 2.3.5.1<br>11.2.3.5<br>11.3.3.4<br>11.3.3.4.1<br>12.4.1.9.3<br>Table 12.4-201 |
| STD COL 1.9-1 | 1.110 | Cost-Benefit Analysis for Radwaste Systems for Light-Water-Cooled Nuclear Power Reactors (Draft Rev. 0, March 1976) | 11.2.3.5.3<br>11.3.3.4.3 |

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**Regulatory Guide/FSAR Section Cross-References**

| | Regulatory Guides | | FSAR Chapter, Section, or Subsection[(a)] |
|---|---|---|---|
| HAR COL 1.9-1 | 1.111 | Methods for Estimating Atmospheric Transport and Dispersion of Gaseous Effluents in Routine Releases from Light-Water-Cooled Reactors (Rev. 1, July 1977) | 2.3.5.1 |
| STD COL 1.9-1 | 1.112 | Calculation of Releases of Radioactive Materials in Gaseous and Liquid Effluents from Light-Water-Cooled Power Reactors (Rev. 1, March 2007) | DCD discussion only; see DCD Table 1.9-1 |
| HAR COL 1.9-1 | 1.114 | Guidance to Operators at the Controls and to Senior Operators in the Control Room of a Nuclear Power Unit (Rev. 2, May 1989) | 13.1.2.1.3.6<br>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 |

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**Regulatory Guide/FSAR Section Cross-References**

| | Regulatory Guides | | FSAR Chapter, Section, or Subsection[a] |
|---|---|---|---|
| STD COL 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<br>8.3.2.1.4<br>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 |
| HAR COL 1.9-1 | 1.132 | Site Investigations for Foundations of Nuclear Power Plants (Rev. 2, October 2003) | 2.5.0.4<br>2.5.4.2<br>2.5.4.2.1.1<br>2.5.4.2.1.1.1<br>2.5.4.2.1.1.2<br>2.5.4.2.1.1.3 |
| STD COL 1.9-1 | 1.133 | Loose-Part Detection Program for the Primary System of Light-Water-Cooled Reactors (Rev. 1, May 1981) | DCD discussion only; see DCD Table 1.9-1 |
| | 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 |
| HAR 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) | 2.5.0.4<br>2.5.4.2<br>2.5.4.2.1.1<br>2.5.4.2.1.6<br>2.5.4.2.1.6.1 |
| 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 |

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**Regulatory Guide/FSAR Section Cross-References**

| | Regulatory Guides | | FSAR Chapter, Section, or Subsection[a] |
|---|---|---|---|
| STD COL 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<br>9.4.7.4<br>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<br>11.2.3.6<br>11.3.3.6<br>11.4.5<br>11.4.6.2 |
| HAR 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 |
| STD COL 1.9-1 | 1.147 | Inservice Inspection Code Case Acceptability, ASME section XI, Division 1 (Rev. 15, October 2007) | 5.2.4<br>6.6 |
| HAR COL 1.9-1 | 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) | DCD discussion only; see DCD Table 1.9-1 |

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**Regulatory Guide/FSAR Section Cross-References**

| | Regulatory Guides | | FSAR Chapter, Section, or Subsection[a] |
|---|---|---|---|
| STD COL 1.9-1 | 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 |
| | 1.155 | Station Blackout (Rev. 0, August 1998) | Table 8.1-201 |
| | 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<br>6.2.5.2.2<br>16 (TS 5.5.8) |
| HAR COL 1.9-1 | 1.165 | Identification and Characterization of Seismic Sources and Determination of Safe Shutdown Earthquake Ground Motion (Rev. 0, March 1997) | 2.5.0.2<br>2.5.2<br>2.5.2.2<br>2.5.2.3<br>2.5.2.4<br>2.5.2.4.1.1.2<br>2.5.2.4.3<br>2.5.2.4.4.2<br>2.5.3.5<br>2.5.3.8 |

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**Regulatory Guide/FSAR Section Cross-References**

| | Regulatory Guides | | FSAR Chapter, Section, or Subsection[(a)] |
|---|---|---|---|
| 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 |
| | 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)<br>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 |

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**Regulatory Guide/FSAR Section Cross-References**

| | Regulatory Guides | | FSAR Chapter, Section, or Subsection[(a)] |
|---|---|---|---|
| STD COL 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)<br>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)<br>16 (TS Bases 3.9.4)<br>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 |
| HAR COL 1.9-1 | 1.189 | Fire Protection for Nuclear Power Plants (Rev. 1, March 2007) | 9.5.1.8.1.1<br>9.5.1.8.2.2<br>Appendix 9A<br>13.1.2.1.3.9<br>17.5 (QAPD III.2) |

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**Regulatory Guide/FSAR Section Cross-References**

| | Regulatory Guides | | FSAR Chapter, Section, or Subsection[(a)] |
|---|---|---|---|
| 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 |
| | 1.192 | Operation and Maintenance Code Case Acceptability, ASME OM Code (Rev. 0, June 2003) | Not referenced; see Appendix 1AA |
| | 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) | 2.3.4.4 |
| | 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) | Not referenced; see Appendix 1AA |
| | 1.197 | Demonstrating Control Room Envelope Integrity at Nuclear Power Reactors (Rev. 0, February 2003) | DCD discussion only; see DCD Table 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 |
| | 1.199 | Anchoring Components and Structural Supports in Concrete (Rev. 0, November 2003) | Not referenced; see Appendix 1AA |

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| | Regulatory Guides | | FSAR Chapter, Section, or Subsection[a] |
|---|---|---|---|
| STD COL 1.9-1 | 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 |
| HAR COL 1.9-1 | 1.204 | Guidelines for Lightning Protection of Nuclear Power Plants (Rev. 0, November 2005) | Table 8.1-201<br>8.3.1.1.8 |
| STD COL 1.9-1 | 1.205 | Risk-Informed, Performance-Based Fire Protection for Existing Light-Water Nuclear Power Plants (Rev. 0, May 2006) | Not referenced; see Appendix 1AA |
| HAR COL 1.9-1 | 1.206 | Combined License Applications for Nuclear Power Plants (LWR Edition) (Rev. 0, June 2007) | 1.1.6.1<br>2.0<br>2.3.1.2.3<br>2.4.3<br>2.5<br>2.5.4<br>2.5.4.1.3<br>2.5.4.3<br>14.3.2.3.1<br>14.3.2.3.2<br>Table 8.1-201 |

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| | Regulatory Guides | | FSAR Chapter, Section, or Subsection[a] |
|---|---|---|---|
| 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 |
| HAR COL 1.9-1 | 1.208 | A Performance-Based Approach to Define the Site-Specific Earthquake Ground Motion (Rev. 0, March 2007) | 2.5.0.1.2<br>2.5.0.2<br>2.5.0.2.6<br>2.5.1<br>2.5.1.2.4<br>2.5.2<br>2.5.2.4.4.2<br>2.5.2.5.1.1<br>2.5.2.5.1.5<br>2.5.2.5.3.4<br>2.5.2.6.1<br>2.5.3<br>2.5.3.6<br>2.5.4.1.3<br>2.5.4<br>2.5.4.3 |
| STD COL 1.9-1 | 1.209 | Guidelines for Environmental Qualification of Safety-Related Computer-Based Instrumentation and Control Systems in Nuclear Power Plants (Rev. 0, March 2007) | Not referenced; see Appendix 1AA |
| | Division 4 Regulatory Guides | | |
| STD COL 1.9-1 | 4.7 | General Site Suitability Criteria for Nuclear Power Stations (Rev. 2, April 1998) | Not referenced; see Appendix 1AA |

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**Regulatory Guide/FSAR Section Cross-References**

| | Regulatory Guides | | FSAR Chapter, Section, or Subsection[a] |
|---|---|---|---|
| STD COL 1.9-1 | 4.15 | Quality Assurance for Radiological Monitoring Programs (Inception through Normal Operations to License Termination) - Effluent Streams and the Environment (Rev. 1, February 1979) | 11.5.1.2<br>11.5.3<br>11.5.4<br>11.5.6.5 |
| | Division 5 Regulatory Guides | | |
| | 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 8 Regulatory Guides | | |
| | 8.2 | Guide for Administrative Practices in Radiation Monitoring (Rev. 0, February 1973) | 12.1 (NEI 07-08)<br>12.3.4 |

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**Regulatory Guide/FSAR Section Cross-References**

| | Regulatory Guides | | FSAR Chapter, Section, or Subsection[a] |
|---|---|---|---|
| STD COL 1.9-1 | 8.7 | Instructions for Recording and Reporting Occupational Radiation Exposure Data (Rev. 2, November 2005) | 12.1 (NEI 07-08) |
| HAR 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 07-08)<br>12.3.4<br>Appendix 12AA<br>Appendix 12AA (NEI 07-03)<br>13.1.2.1.2<br>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 07-08) |
| HAR 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 07-08)<br>12.3.4<br>Appendix 12AA<br>Appendix 12AA (NEI 07-03)<br>13.1.2.1.2<br>13.1.2.1.2.6 |
| STD COL 1.9-1 | 8.13 | Instruction Concerning Prenatal Radiation Exposure (Rev. 3, June 1999) | 12.1 (NEI 07-08) |
| | 8.15 | Acceptable Programs for Respiratory Protection (Rev. 1, October 1999) | 12.1 (NEI 07-08) |
| | 8.27 | Radiation Protection Training for Personnel at Light-Water-Cooled Nuclear Power Plants (Rev. 0, March 1981) | 12.1 (NEI 07-08) |

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| Regulatory Guides | | FSAR Chapter, Section, or Subsection[a] |
|---|---|---|
| 8.28 | Audible-Alarm Dosimeters (Rev. 0, August 1981) | 12.1 (NEI 07-08) |
| 8.29 | Instruction Concerning Risks from Occupational Radiation Exposure (Rev. 1, February 1996) | 12.1 (NEI 07-08) |
| 8.34 | Monitoring Criteria and Methods To Calculate Occupational Radiation Doses (Rev. 0, July 1992) | 12.1 (NEI 07-08) |
| 8.35 | Planned Special Exposures (Rev. 0, June 1992) | 12.1 (NEI 07-08) |
| 8.36 | Radiation Dose to the Embryo/Fetus (Rev. 0, July 1992) | 12.1 (NEI 07-08) |
| 8.38 | Control of Access to High and Very High Radiation Areas of Nuclear Plants (Rev. 1, May 2006) | 12.1 (NEI 07-08) |

a) NEI templates are incorporated by reference. See Table 1.6-201.

**Table 1.9-202 (Sheet 1 of 27)[a]**
**Conformance with SRP Acceptance Criteria**

| | Criteria Section[b] | | Reference Criteria | FSAR Position[c] | Comments/Summary of Exceptions |
|---|---|---|---|---|---|
| STD SUP 1.9-1 | 1 | Introduction and Interfaces, Initial Issuance, 03/2007 | | N/A | No specific acceptance criteria associated with these general requirements. |
| | 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 | |
| HAR SUP 1.9-1 | 2.1.3 | Population Distribution | | Exception | The population density projected for the HAR site at the time of initial site approval and 5 years thereafter will exceed 500 ppsm but is not well in excess of this value, as discussed in Section 2.1 and Environmental Report Chapter 9. |
| 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 | . |

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**Table 1.9-202 (Sheet 2 of 27)[a]**
**Conformance with SRP Acceptance Criteria**

| | Criteria Section[b] | Reference Criteria | FSAR Position[c] | Comments/Summary of Exceptions |
|---|---|---|---|---|
| 2.3.3 | Onsite Meteorological Measurements Programs | | Acceptable | |
| 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 | |
| 2.4.3 | Probable Maximum Flood (PMF) on Streams and Rivers, Rev. 4, 03/2007 | | Acceptable | |
| 2.4.4 | Potential Dam Failures | | Acceptable | |
| 2.4.5 | Probable Maximum Surge and Seiche Flooding | | Acceptable | |
| 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 | |

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**Table 1.9-202 (Sheet 3 of 27)[a]**
**Conformance with SRP Acceptance Criteria**

| | Criteria Section[b] | | Reference Criteria | FSAR Position[c] | Comments/Summary of Exceptions |
|---|---|---|---|---|---|
| STD SUP 1.9-1 | 2.5.1 | Basic Geologic and Seismic Information, Rev.4, 03/2007 | | Acceptable | |
| HAR 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 | | Acceptable | |
| | 3.2.1 | Seismic Classification, Rev. 2, 03/2007 | | | See Notes d and e. |
| | 3.2.2 | System Quality Group Classification, Rev. 2, 03/2007 | | | See Notes d and e. |
| | 3.3.1 | Wind Loadings | | Acceptable | See Notes d, e, and f. |
| | 3.3.2 | Tornado Loadings | | Acceptable | See Notes d, e, and f. |
| | 3.4.1 | Internal Flood Protection for Onsite Equipment Failures | | Acceptable | See Notes d, e, and f. |
| | 3.4.2 | Analysis Procedures | | | See Notes d and e. |
| | 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. |

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**Table 1.9-202 (Sheet 4 of 27)[a]**
**Conformance with SRP Acceptance Criteria**

| | Criteria Section[b] | Reference Criteria | FSAR Position[c] | Comments/Summary of Exceptions |
|---|---|---|---|---|
| 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 d, e, and f. |
| 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 d and e. |
| 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 d and e. |
| 3.6.2 | Determination of Rupture Locations and Dynamic Effects Associated with the Postulated Rupture of Piping, Rev. 2, 03/2007 | | Acceptable | See Notes d, e, and f. |
| 3.6.3 | Leak-Before-Break Evaluation Procedures, Rev. 1, 03/2007 | | Acceptable | See Notes d, e, and f. |
| 3.7.1 | Seismic Design Parameters | | | See Notes d and e. |
| 3.7.2 | Seismic System Analysis | | Acceptable | See Notes d, e, and f. |
| 3.7.3 | Seismic Subsystem Analysis | | | See Notes d and e. |
| 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. |

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**Table 1.9-202 (Sheet 5 of 27)[a]**
**Conformance with SRP Acceptance Criteria**

| | Criteria Section[b] | Reference Criteria | FSAR Position[c] | Comments/Summary of Exceptions |
|---|---|---|---|---|
| 3.8.2 | Steel Containment, Rev. 2, 03/2007 | | | See Notes d and e. |
| 3.8.3 | Concrete and Steel Internal Structures of Steel or Concrete Containments, Rev. 2, 03/2007 | | | See Notes d and e. |
| 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 d and e. |
| 3.9.3 | ASME Code Class 1, 2, and 3 Components, Component Supports, and Core Support Structures, Rev. 2, 03/2007 | | Acceptable | See Notes d, e, and f. |
| 3.9.4 | Control Rod Drive Systems | | | See Notes d and e. |
| 3.9.5 | Reactor Pressure Vessel Internals | | | See Notes d and e. |
| 3.9.6 | Functional Design, Qualification, and Inservice Testing Programs for Pumps, Valves, and Dynamic Restraints | | Acceptable | See Notes d, e, and f. |
| 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 d and e. |
| 3.11 | Environmental Qualification of Mechanical and Electrical Equipment | | Acceptable | See Notes d, e, and f. |

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**Table 1.9-202 (Sheet 6 of 27)[a]**
**Conformance with SRP Acceptance Criteria**

| | Criteria Section[b] | Reference Criteria | FSAR Position[c] | Comments/Summary of Exceptions |
|---|---|---|---|---|
| 3.12 | ASME Code Class 1, 2, and 3 Piping Systems, Piping Components and their Associated Supports, Initial Issuance, 03/2007 | | | See Note g. |
| 3.13 | Threaded Fasteners - ASME Code Class 1, 2, and 3, Initial Issuance, 03/2007 | | | See Note g. |
| 4.2 | Fuel System Design | | | See Notes d and e. |
| 4.3 | Nuclear Design | | | See Notes d and e. |
| 4.4 | Thermal and Hydraulic Design, Rev. 2, 03/2007 | | Acceptable | See Notes d, e, and f. |
| 4.5.1 | Control Rod Drive Structural Materials | | | See Notes d and e. |
| 4.5.2 | Reactor Internal and Core Support Structure Materials | | | See Notes d and e. |
| 4.6 | Functional Design of Control Rod Drive System, Rev. 2, 03/2007 | | | See Notes d and e. |
| 5.2.1.1 | Compliance with the Codes and Standards Rule, 10 CFR 50.55a | | Acceptable | See Notes d, e, and f. |
| 5.2.1.2 | Applicable Code Cases | | | See Notes d and e. |
| 5.2.2 | Overpressure Protection | | | See Notes d and e. |
| 5.2.3 | Reactor Coolant Pressure Boundary Materials | | Acceptable | See Notes d, e, and f. |
| 5.2.4 | Reactor Coolant Pressure Boundary Inservice Inspection and Testing, Rev. 2, 03/2007 | | Acceptable | See Notes d, e, and f. |
| 5.2.5 | Reactor Coolant Pressure Boundary Leakage Detection, Rev. 2, 03/2007 | | | See Notes d and e. |
| 5.3.1 | Reactor Vessel Materials, Rev. 2, 03/2007 | | | See Notes d and e. |

**Table 1.9-202 (Sheet 7 of 27)[a]**
**Conformance with SRP Acceptance Criteria**

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| Criteria Section[b] | | Reference Criteria | FSAR Position[c] | Comments/Summary of Exceptions |
|---|---|---|---|---|
| 5.3.2 | Pressure-Temperature Limits, Upper-Shelf Energy, and Pressurized Thermal Shock, Rev. 2, 03/2007 | | Acceptable | See Notes d, e, and f. |
| 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 d and e. |
| 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 d, e, and f. |
| 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 d and e. |
| 5.4.8 | Reactor Water Cleanup System (BWR) | | N/A | |
| 5.4.11 | Pressurizer Relief Tank | | | See Notes d and e. |
| 5.4.12 | Reactor Coolant System High Point Vents, Rev. 1, 03/2007 | | | See Notes d and e. |
| 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 d, e, and f. |

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**Table 1.9-202 (Sheet 8 of 27)[a]**
**Conformance with SRP Acceptance Criteria**

| Criteria Section[b] | | Reference Criteria | FSAR Position[c] | Comments/Summary of Exceptions |
|---|---|---|---|---|
| 6.1.2 | Protective Coating Systems (Paints) - Organic Materials | | Acceptable | See Notes d, e, and f. |
| 6.2.1 | Containment Functional Design | | | See Notes d and e. |
| 6.2.1.1.A | PWR Dry Containments, Including Subatmospheric Containments | | | See Notes d and e. |
| 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 d and e. |
| 6.2.1.3 | Mass and Energy Release Analysis for Postulated Loss-of-Coolant Accidents (LOCAs) | | | See Notes d and e. |
| 6.2.1.4 | Mass and Energy Release Analysis for Postulated Secondary System Pipe Ruptures, Rev. 2, 03/2007 | | | See Notes d and e. |
| 6.2.1.5 | Minimum Containment Pressure Analysis for Emergency Core Cooling System Performance Capability Studies | | | See Notes d and e. |
| 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 d and e. |
| 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. |

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**Table 1.9-202 (Sheet 9 of 27)[a]**
**Conformance with SRP Acceptance Criteria**

| | Criteria Section[b] | Reference Criteria | FSAR Position[c] | Comments/Summary of Exceptions |
|---|---|---|---|---|
| 6.2.7 | Fracture Prevention of Containment Pressure Boundary, Rev. 1, 03/2007 | | | See Notes d and e. |
| 6.3 | Emergency Core Cooling System | | Acceptable | See Notes d, e, and f. |
| 6.4 | Control Room Habitability System | | Acceptable | See Notes d, e, and f. |
| 6.5.1 | ESF Atmosphere Cleanup Systems | | | See Notes d and e. |
| 6.5.2 | Containment Spray as a Fission Product Cleanup System, Rev. 4, 03/2007 | | | See Notes d and e. |
| 6.5.3 | Fission Product Control Systems and Structures | | | See Notes d and e. |
| 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 d and e. |
| Appendix 7.0-A | Review Process for Digital Instrumentation and Control Systems, Rev. 5, 03/2007 | | | See Notes d and e. |
| 7.1 | Instrumentation and Controls –Introduction, Rev. 5, 03/2007 | | | See Notes d and e. |
| 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 d and e. |

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**Table 1.9-202 (Sheet 10 of 27)[a]**
**Conformance with SRP Acceptance Criteria**

| | Criteria Section[b] | Reference Criteria | FSAR Position[c] | Comments/Summary of Exceptions |
|---|---|---|---|---|
| Appendix 7.1-A | Acceptance Criteria and Guidelines for Instrumentation and Controls Systems Important to Safety, Rev. 5, 03/2007 | | | See Notes d and e. |
| Appendix 7.1-B | Guidance for Evaluation of Conformance to IEEE Std 279, Rev. 5, 03/2007 | | | See Notes d and e. |
| Appendix 7.1-C | Guidance for Evaluation of Conformance to IEEE Std 603, Rev. 5, 03/2007 | | | See Notes d and e. |
| Appendix 7.1-D | Guidance for Evaluation of the Application of IEEE Std 7-4.3.2 Initial Issuance 03/2007 | | | See Notes d and e. |
| 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 d and e. |
| 7.4 | Safe Shutdown Systems, Rev. 5, 03/2007 | | | See Notes d and e. |
| 7.5 | Information Systems Important to Safety, Rev. 5, 03/2007 | | | See Notes d and e. |
| 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 d and e. |
| 7.9 | Data Communication Systems, Rev. 5, 03/2007 | | | See Notes d and e. |
| 8.1 | Electric Power – Introduction | | N/A | No specific acceptance criteria associated with these general requirements. |

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**Table 1.9-202 (Sheet 11 of 27)[a]**
**Conformance with SRP Acceptance Criteria**

| | Criteria Section[b] | Reference Criteria | FSAR Position[c] | 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 d, e, and f. |
| 8.3.2 | D-C Power Systems (Onsite) | | Acceptable | See Notes d, e, and f. |
| 8.4 | Station Blackout, Initial Issuance, 03/2007 | | | See Note g. |
| 9.1.1 | Criticality Safety of Fresh and Spent Fuel Storage and Handling | | | See Notes d and e. |
| 9.1.2 | New and Spent Fuel Storage, Rev. 4, 03/2007 | | | See Notes d and e. |
| 9.1.3 | Spent Fuel Pool Cooling and Cleanup System, Rev. 2, 03/2007 | | | See Notes d and e. |
| 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 d, e, and f. |
| 9.2.1 | Station Service Water System, Rev. 5, 03/2007 | | Acceptable | See Notes d, e, and f. |
| 9.2.2 | Reactor Auxiliary Cooling Water Systems, Rev. 4, 03/2007 | | | See Notes d and e. |
| 9.2.4 | Potable and Sanitary Water Systems | | | See Notes d and e. |
| 9.2.5 | Ultimate Heat Sink | | Acceptable | See Notes d, e, and f. |
| 9.2.6 | Condensate Storage Facilities | | Acceptable | See Notes d, e, and f. |
| 9.3.1 | Compressed Air System, Rev. 2, 03/2007 | | Acceptable | See Notes d, e, and f. |
| 9.3.2 | Process and Post-accident Sampling Systems | | | See Notes d and e. |

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**Table 1.9-202 (Sheet 12 of 27)[a]**
**Conformance with SRP Acceptance Criteria**

| | Criteria Section[b] | Reference Criteria | FSAR Position[c] | Comments/Summary of Exceptions |
|---|---|---|---|---|
| 9.3.3 | Equipment and Floor Drainage System | | | See Notes d and e. |
| 9.3.4 | Chemical and Volume Control System (PWR) (Including Boron Recovery System) | | | See Notes d and e. |
| 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. |
| 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 d and e. |
| 9.4.5 | Engineered Safety Feature Ventilation System | | | See Notes d and e. |
| 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 d, e, and f. |
| 9.5.3 | Lighting Systems | | | See Notes d and e. |
| 9.5.4 | Emergency Diesel Engine Fuel Oil Storage and Transfer System | | Acceptable | See Notes d, e, and f. |
| 9.5.5 | Emergency Diesel Engine Cooling Water System | | | See Notes d and e. |
| 9.5.6 | Emergency Diesel Engine Starting System | | | See Notes d and e. |
| 9.5.7 | Emergency Diesel Engine Lubrication System | | | See Notes d and e. |
| 9.5.8 | Emergency Diesel Engine Combustion Air Intake and Exhaust System | | | See Notes d and e. |
| 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 d, e, and f. |

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**Table 1.9-202 (Sheet 13 of 27)[a]**
**Conformance with SRP Acceptance Criteria**

| | Criteria Section[b] | Reference Criteria | FSAR Position[c] | Comments/Summary of Exceptions |
|---|---|---|---|---|
| 10.4.1 | Main Condensers | | | See Notes d and e. |
| 10.4.2 | Main Condenser Evacuation System | | Acceptable | See Notes d, e, and f. |
| 10.4.3 | Turbine Gland Sealing System | | | See Notes d and e. |
| 10.4.4 | Turbine Bypass System | | | See Notes d and e. |
| 10.4.5 | Circulating Water System | | Acceptable | See Notes d, e, and f. |
| 10.4.6 | Condensate Cleanup System | | | See Notes d and e. |
| 10.4.7 | Condensate and Feedwater System, Rev. 4, 03/2007 | | Acceptable | See Notes d, e, and f. |
| 10.4.8 | Steam Generator Blowdown System (PWR) | | | See Notes d and e. |
| 10.4.9 | Auxiliary Feedwater System (PWR) | | | See Notes d and e. |
| 11.1 | Source Terms | | | See Notes d and e. |
| 11.2 | Liquid Waste Management System | | Acceptable | See Notes d, e, and f. |
| 11.3 | Gaseous Waste Management System | | Acceptable | See Notes d, e, and f. |
| 11.4 | Solid Waste Management System | | Acceptable | See Notes d, e, and f. |
| 11.5 | Process and Effluent Radiological Monitoring Instrumentation and Sampling Systems, Rev. 4, 03/2007 | | Acceptable | See Notes d, e, and f. |

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**Table 1.9-202 (Sheet 14 of 27)[a]**
**Conformance with SRP Acceptance Criteria**

| | Criteria Section[b] | Reference Criteria | FSAR Position[c] | Comments/Summary of Exceptions |
|---|---|---|---|---|
| 12.1 | Assuring that Occupational Radiation Exposures Are As Low As Is Reasonably Achievable | | Exception | See Notes d, e, and f.<br><br>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.<br><br>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. |

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**Table 1.9-202 (Sheet 15 of 27)[a]**
**Conformance with SRP Acceptance Criteria**

| | Criteria Section[b] | Reference Criteria | FSAR Position[c] | Comments/Summary of Exceptions |
|---|---|---|---|---|
| 12.2 | Radiation Sources | | Exception | See Notes d, e, and f.<br><br>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 d, e, and f. |
| 12.5 | Operational Radiation Protection Program | | Acceptable | See Notes d, e, and f. |

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**Table 1.9-202 (Sheet 16 of 27)[a]**
**Conformance with SRP Acceptance Criteria**

| | Criteria Section[b] | Reference Criteria | FSAR Position[c] | Comments/Summary of Exceptions |
|---|---|---|---|---|
| 13.1.1 | Management and Technical Support Organization, Rev. 5, 03/2007 | | Exception | See Notes d, e, and f.<br><br>Design and construction responsibilities are not defined in numbers.<br><br>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 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. |

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**Table 1.9-202 (Sheet 17 of 27)[a]**
**Conformance with SRP Acceptance Criteria**

| | Criteria Section[b] | Reference Criteria | FSAR Position[c] | Comments/Summary of Exceptions |
|---|---|---|---|---|
| | | | | 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. |
| 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. |

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**Table 1.9-202 (Sheet 18 of 27)[a]**
**Conformance with SRP Acceptance Criteria**

| | Criteria Section[b] | Reference Criteria | FSAR Position[c] | Comments/Summary of Exceptions |
|---|---|---|---|---|
| 13.2.1 | Reactor Operator Requalification Program; Reactor Operator Training | | Exception | See Notes d, e, and f. 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 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.<br><br>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. |

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**Table 1.9-202 (Sheet 19 of 27)[a]**
**Conformance with SRP Acceptance Criteria**

| Criteria Section[b] | | Reference Criteria | FSAR Position[c] | Comments/Summary of Exceptions |
|---|---|---|---|---|
| 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. |
| 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. 2, 03/2007 | | Exception | See Notes d, e, and f. 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 | | Acceptable | See notes d and e. |

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**Table 1.9-202 (Sheet 20 of 27)[a]**
**Conformance with SRP Acceptance Criteria**

| | Criteria Section[b] | Reference Criteria | FSAR Position[c] | Comments/Summary of Exceptions |
|---|---|---|---|---|
| 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 d, e, and f. 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] | | | |
| 14.3.2 | Structural and Systems Engineering - Inspections, Tests, Analyses, and Acceptance Criteria, Initial Issuance, 03/2007 | | | See Notes d and e. |
| 14.3.3 | Piping Systems and Components - Inspections, Tests, Analyses, and Acceptance Criteria, Initial Issuance, 03/2007 | | | See Notes d and e. |
| 14.3.4 | Reactor Systems - Inspections, Tests, Analyses, and Acceptance Criteria, Initial Issuance, 03/2007 | | | See Notes d and e. |
| 14.3.5 | Instrumentation and Controls - Inspections, Tests, Analyses, and Acceptance Criteria, Initial Issuance, 03/2007 | | | See Notes d and e. |

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**Table 1.9-202 (Sheet 21 of 27)[a]**
**Conformance with SRP Acceptance Criteria**

| | Criteria Section[b] | Reference Criteria | FSAR Position[c] | Comments/Summary of Exceptions |
|---|---|---|---|---|
| 14.3.6 | Electrical Systems - Inspections, Tests, Analyses, and Acceptance Criteria, Initial Issuance, 03/2007 | | | See Notes d and e. |
| 14.3.7 | Plant Systems - Inspections, Tests, Analyses, and Acceptance Criteria, Initial Issuance, 03/2007 | | Acceptable | See Notes d, e, and f. |
| 14.3.8 | Radiation Protection - Inspections, Tests, Analyses, and Acceptance Criteria, Initial Issuance, 03/2007 | | | See Notes d and e. |
| 14.3.9 | Human Factors Engineering - Inspections, Tests, Analyses, and Acceptance Criteria, Initial Issuance, 03/2007 | | | See Notes d and e. |
| 14.3.10 | Emergency Planning - Inspections, Tests, Analyses, and Acceptance Criteria, Initial Issuance, 03/2007 | | Acceptable | See Notes d, e, and f. |
| 14.3.11 | Containment Systems - Inspections, Tests, Analyses, and Acceptance Criteria, Initial Issuance, 03/2007 | | | See Notes d and e. |
| 14.3.12 | Physical Security Hardware - Inspections, Tests, Analyses, and Acceptance Criteria, Initial Issuance, 03/2007 | | Acceptable | See Notes d, e, and f. |
| 15 | Introduction-Transient and Accident Analysis | | | See Notes d and e. |
| 15.0.1 | Radiological Consequence Analyses Using Alternative Source Terms, Rev. 0, 07/2000 | | | See Notes d and e. |

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**Table 1.9-202 (Sheet 22 of 27)[a]**
**Conformance with SRP Acceptance Criteria**

| | Criteria Section[b] | Reference Criteria | FSAR Position[c] | Comments/Summary of Exceptions |
|---|---|---|---|---|
| 15.0.2 | Review of Transient and Accident Analysis Method, Rev. 0, 12/2005 | | | See Notes d and e. |
| 15.0.3 | Design Basis Accident Radiological Consequences of Analyses for Advanced Light Water Reactors, Initial Issuance, 03/2007 | | | See Notes d and e. |
| 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 d and e. |
| 15.1.5 | Steam System Piping Failures Inside and Outside of Containment (PWR) | | | See Notes d and e. |
| 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 d and e. |
| 15.2.6 | Loss of Nonemergency AC Power to the Station Auxiliaries, Rev. 2, 03/2007 | | | See Notes d and e. |
| 15.2.7 | Loss of Normal Feedwater Flow | | | See Notes d and e. |
| 15.2.8 | Feedwater System Pipe Breaks Inside and Outside Containment (PWR), Rev. 2, 03/2007 | | | See Notes d and e. |

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**Table 1.9-202 (Sheet 23 of 27)[a]**
**Conformance with SRP Acceptance Criteria**

| | Criteria Section[b] | Reference Criteria | FSAR Position[c] | Comments/Summary of Exceptions |
|---|---|---|---|---|
| 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 d and e. |
| 15.3.3 - 15.3.4 | Reactor Coolant Pump Rotor Seizure and Reactor Coolant Pump Shaft Break | | | See Notes d and e. |
| 15.4.1 | Uncontrolled Control Rod Assembly Withdrawal from a Subcritical or Low Power Startup Condition | | | See Notes d and e. |
| 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 d and e. |
| 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 d and e. |
| 15.4.6 | Inadvertent Decrease in Boron Concentration in the Reactor Coolant System (PWR), Rev. 2, 03/2007 | | | See Notes d and e.<br>See Notes d and e. |
| 15.4.7 | Inadvertent Loading and Operation of a Fuel Assembly in an Improper Position, Rev. 2, 03/2007 | | | See Notes d and e. |
| 15.4.8 | Spectrum of Rod Ejection Accidents (PWR) | | | See Notes d and e. |

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**Table 1.9-202 (Sheet 24 of 27)[a]**
**Conformance with SRP Acceptance Criteria**

| | Criteria Section[b] | Reference Criteria | FSAR Position[c] | Comments/Summary of Exceptions |
|---|---|---|---|---|
| 15.4.8.A | Radiological Consequences of a Control Rod Ejection Accident (PWR) , Rev. 1, 07/1981 | | | See Notes d and e. |
| 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 d and e. |
| 15.6.1 | Inadvertent Opening of a PWR Pressurizer Pressure Relief Valve or a BWR Pressure Relief Valve, Rev. 2, 03/2007 | | | See Notes d and e. |
| 15.6.5 | Loss-of-Coolant Accidents Resulting From Spectrum of Postulated Piping Breaks Within the Reactor Coolant Pressure Boundary | | | See Notes d and e. |

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**Table 1.9-202 (Sheet 25 of 27)[a]**
**Conformance with SRP Acceptance Criteria**

| | Criteria Section[b] | Reference Criteria | FSAR Position[c] | Comments/Summary of Exceptions |
|---|---|---|---|---|
| 15.8 | Anticipated Transients Without Scram, Rev. 2, 03/2007 | | | See Notes d and e. |
| 15.9 | Boiling Water Reactor Stability, Initial Issuance, 03/2007 | | N/A | |
| 16 | Technical Specifications | | Acceptable | See Notes d, e, and f. |
| 16.1 | Risk-informed Decision Making: Technical Specifications, Rev. 1, 03/2007 | | N/A | This SRP applies to the Technical Specifications change process. |

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**Table 1.9-202 (Sheet 26 of 27)[a]**
**Conformance with SRP Acceptance Criteria**

| | Criteria Section[b] | Reference Criteria | FSAR Position[c] | Comments/Summary of Exceptions |
|---|---|---|---|---|
| 17.1 | Quality Assurance During the Design and Construction Phases, Rev. 2, 07/1981 | | Acceptable | See Notes d, e, and f. |
| 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 d and e. |
| 17.4 | Reliability Assurance Program (RAP), Initial Issuance, 03/2007 | | | See Notes d and e. |
| 17.5 | Quality Assurance Program Description - Design Certification, Early Site Permit and New License Applicants, Initial Issuance, 03/2007 | | Acceptable | See Notes d, e, and f. 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. |
| 17.6 | Maintenance Rule, Initial Issuance, 03/2007 | | Acceptable | Content developed in accordance with NEI 07-02A |
| 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 d, e, and f. |

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**Table 1.9-202 (Sheet 27 of 27)[a]**
**Conformance with SRP Acceptance Criteria**

| | Criteria Section[b] | Reference Criteria | FSAR Position[c] | Comments/Summary of Exceptions |
|---|---|---|---|---|
| 19.1 | Determining the Technical Adequacy of Probabilistic Risk Assessment Results for Risk-Informed Activities, Rev. 2, 06/2007 | | Acceptable | See Notes d, e, and f. |
| 19.2 | Review of Risk Information Used to Support Permanent Plant-Specific Changes to the Licensing Basis: General Guidance, Initial Issuance, 06/2007 | | Acceptable | See Note g. |

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.

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**Table 1.9-203 (Sheet 1 of 17)**
**Listing of Unresolved Safety Issues and Generic Safety Issues**

| Action Plan Item/Issue No. | Title | Applicable Screening Criteria | Notes |
|---|---|---|---|
| TMI Action Plan Items | | | |
| 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 |
| 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 |

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**Table 1.9-203 (Sheet 2 of 17)**
**Listing of Unresolved Safety Issues and Generic Safety Issues**

| Action Plan Item/Issue No. | Title | Applicable Screening Criteria | Notes |
|---|---|---|---|
| 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 |
| 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 |

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**Table 1.9-203 (Sheet 3 of 17)**
**Listing of Unresolved Safety Issues and GenericSafety Issues**

| Action Plan Item/Issue No. | Title | Applicable Screening Criteria | Notes |
|---|---|---|---|
| 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 |
| 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 |

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**Table 1.9-203 (Sheet 4 of 17)**
**Listing of Unresolved Safety Issues and Generic Safety Issues**

| Action Plan Item/Issue No. | Title | Applicable Screening Criteria | Notes |
|---|---|---|---|
| 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 |
| 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 |

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**Table 1.9-203 (Sheet 5 of 17)**
**Listing of Unresolved Safety Issues and Generic Safety Issues**

| Action Plan Item/Issue No. | Title | Applicable Screening Criteria | Notes |
|---|---|---|---|
| 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 |
| 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 |

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**Table 1.9-203 (Sheet 6 of 17)**
**Listing of Unresolved Safety Issues and Generic Safety Issues**

| Action Plan Item/Issue No. | Title | Applicable Screening Criteria | Notes |
|---|---|---|---|
| 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 |
| 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 |

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**Table 1.9-203 (Sheet 7 of 17)**
**Listing of Unresolved Safety Issues and Generic Safety Issues**

| Action Plan Item/Issue No. | Title | Applicable Screening Criteria | Notes |
|---|---|---|---|
| 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 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 |
| 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 |

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**Table 1.9-203 (Sheet 8 of 17)**
**Listing of Unresolved Safety Issues and Generic Safety Issues**

| Action Plan Item/Issue No. | Title | Applicable Screening Criteria | Notes |
|---|---|---|---|
| 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 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 |
| III.D.3.5(3) | Revise 10 CFR 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 |
| III.D.3.5(3) | Revise 10 CFR 20 | d | Not applicable to new plants |
| IV.A.1 | Seek Legislative Authority | d | Not applicable to new plants |

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**Table 1.9-203 (Sheet 9 of 17)**
**Listing of Unresolved Safety Issues and Generic Safety Issues**

| Action Plan Item/Issue No. | Title | Applicable Screening Criteria | Notes |
|---|---|---|---|
| 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 |
| 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 |

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**Table 1.9-203 (Sheet 10 of 17)**
**Listing of Unresolved Safety Issues and Generic Safety Issues**

| Action Plan Item/Issue No. | Title | Applicable Screening Criteria | Notes |
|---|---|---|---|
| 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 |
| V.G.2 | Achieve Single Location, Interim | d | Not applicable to new plants |
| Task Action Plan Items | | | |
| 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 |

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**Table 1.9-203 (Sheet 11 of 17)**
**Listing of Unresolved Safety Issues and Generic Safety Issues**

| Action Plan Item/Issue No. | Title | Applicable Screening Criteria | Notes |
|---|---|---|---|
| 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 |
| 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 |

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**Table 1.9-203 (Sheet 12 of 17)**
**Listing of Unresolved Safety Issues and Generic Safety Issues**

| Action Plan Item/Issue No. | Title | Applicable Screening Criteria | Notes |
|---|---|---|---|
| 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 |
| 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 |
| 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 |

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**Table 1.9-203 (Sheet 13 of 17)**
**Listing of Unresolved Safety Issues and Generic Safety Issues**

| Action Plan Item/Issue No. | Title | Applicable Screening Criteria | Notes |
|---|---|---|---|
| 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. |
| 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 |

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**Table 1.9-203 (Sheet 14 of 17)**
**Listing of Unresolved Safety Issues and Generic Safety Issues**

| Action Plan Item/Issue No. | Title | Applicable Screening Criteria | Notes |
|---|---|---|---|
| 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 |
| 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 |

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**Table 1.9-203 (Sheet 15 of 17)**
**Listing of Unresolved Safety Issues and Generic Safety Issues**

| Action Plan Item/Issue No. | Title | Applicable Screening Criteria | Notes |
|---|---|---|---|
| 185 | Control of Recriticality following Small-Break LOCA in PWRs | h (High) | Not applicable to new plants |
| 186 | Potential Risk and Consequences of Heavy Load Drops in Nuclear Power Plants | Continue | 9.1.5.3, 1.9.4.2.3 |
| 189 | Susceptibility of Ice Condenser and Mark III Containments to Early Failure from Hydrogen Combustion During a Severe Accident Description | 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 |
| 193 | BWR ECCS Suction Concerns | Continue | Not applicable to the AP1000. |
| 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 Factors Issues | | | |
| HF1.1 | Shift Staffing | f | 13.1.2.1.4<br>18.6 |
| HF2.1 | Evaluate Industry Training | d | Not applicable to new plants |
| HF2.2 | Evaluate INPO Accreditation | d | Not applicable to new plants |
| 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 |

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**Table 1.9-203 (Sheet 16 of 17)**
**Listing of Unresolved Safety Issues and Generic Safety Issues**

| Action Plan Item/Issue No. | Title | Applicable Screening Criteria | Notes |
|---|---|---|---|
| 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 Issues | | | |
| 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 |
| 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 |

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

| Action Plan Item/Issue No. | Title | Applicable Screening Criteria | Notes |
|---|---|---|---|
| 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 |
| 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):

(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).

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(j) The AP600 DSER (Draft NUREG-1512) identified this item as required to be discussed.

**Table 1.9-204 (Sheet 1 of 6)**
**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 |
| HAR COL 1.9-2 | 80-15 | Possible Loss of Emergency Notification System (ENS) with Loss of Offsite Power (6/80) | 9.5.2.2.3.1<br>9.5.2.2.3.2.3<br>9.5.2.5.1 |
| STD COL 1.9-2 | 02-01 | Reactor Pressure Vessel Head Degradation and Reactor Coolant Pressure Boundary Integrity | 5.2.4<br>See Note a. |
| | 02-02 | Reactor Pressure Vessel Head and Vessel Head Penetration Nozzle Inspection Programs | 5.2.4<br>See Note a. |
| | 03-01 | Potential Impact of Debris Blockage on Emergency Sump Recirculation at Pressurized-Water Reactors | 6.3<br>See Note a. |
| | 03-02 | Leakage from Reactor Pressure Vessel Lower Head Penetrations and Reactor Coolant Pressure Boundary Integrity | 5.2.4.3<br>See Note a. |
| | 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<br>One time report. |

STD COL 1.9-2

**Table 1.9-204 (Sheet 2 of 6)**
**Generic Communications Assessment**

| Number | Title | Comment |
|---|---|---|
| 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 a. |
| 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 |
| GENERIC LETTERS | | |
| 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<br>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. |
| 80-77 | Refueling Water Level (8/80) | 16.1<br>See Note a. |
| 80-094 | Emergency Plan (11/80) | 13.3<br>Emergency Plan |
| 80-099 | Technical Specification Revisions for Snubber Surveillance (11/80) | Snubbers no longer in generic Tech Specs<br>See Note a. |
| 80-108 | Emergency Planning (12/80) | 13.3 |

**Table 1.9-204 (Sheet 3 of 6)**
**Generic Communications Assessment**

| | Number | Title | Comment |
|---|---|---|---|
| STD COL 1.9-2 | 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<br>13.2 |
| | 82-02 | Commission Policy on Overtime (2/82) | 16.1 |
| | 82-04 | Use of INPO See-in Program (3/82) | 13.1<br>13.5 |
| HAR COL 1.9-2 | 82-12 | Nuclear Power Plant Staff Working Hours (6/82) | 13.1.2.1.3.2<br>13.1.2.1.3.4<br>13.1.2.1.2.6<br>13.1.2.1.2.7<br>13.1.2.1.2.8<br>13.1.2.1.4<br>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<br>See Note a. |

**Table 1.9-204 (Sheet 4 of 6)**
**Generic Communications/Assessment**

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| Number | Title | Comment |
|---|---|---|
| 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 |
| 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 |
| 85-14 | 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 |

**Table 1.9-204 (Sheet 5 of 6)**
**Generic CommunicationsAssessment**

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| Number | Title | Comment |
|---|---|---|
| 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<br>See Note a. |
| 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) | 9.5.2.2.3.2.3<br>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) | 9.5.2.2.3.2.3<br>13.3 |
| 91-16 | Licensed Operators and Other Nuclear Facility Personnel Fitness for Duty (10/91) | 13.7 |

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**Table 1.9-204 (Sheet 6 of 6)**
**Generic Communications/Assessment**

| Number | Title | Comment |
|---|---|---|
| 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 |
| 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<br>See Note a. |
| 04-01 | Requirements for Steam Generator Tube Inspections | 5.4.2.5<br>16.1<br>See Note a. |
| 04-02 | Potential Impact of Debris Blockage on Emergency Recirculation during Design Basis Accidents at Pressurized-Water Reactors | 6.3.8.1<br>See Note a. |
| 06-01 | Steam Generator Tube Integrity and Associated Technical Specifications | 5.4.2.5<br>16.1<br>Technical Specifications<br>See Note a. |
| 06-02 | Grid Reliability and the Impact on Plant Risk and the Operability of Offsite Power | 8.2.1.1<br>8.2.2<br>See Note a<br>. |
| 06-03 | Potentially Nonconforming Hemyc and MT Fire Barrier Configurations | 9.5.1.8<br>See Note a. |
| 07-01 | Inaccessible or Underground Power Cable Failures that Disable Accident Mitigation Systems or Cause Plant Transients. | 17.6<br>See Note a. |

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

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Add the following section after DCD Subsection 1.9.6.

## 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.

Security controls during construction and operation are addressed in the Physical Security Plan.

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

HAR SUP 1.10-1

HAR 2 and 3 will be located in an area north of the existing unit, as shown on Figure 1.1-201. The power blocks for HAR 2 and 3 have a minimum separation of at least 290 meters (950 feet) between plant centerlines while the centroids for the power block pair are separated from the existing unit by more than 427 meters (1400 feet). The significant separation of the existing unit from the new units reduces the potential for construction impacts upon the existing unit SSCs. Conversely, close proximity of the new units presents a more likely potential for construction impact for the first completed new unit from the remaining unit under construction.

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.

HAR SUP 1.10-1

- HNP SSCs important to safety are described in Chapter 3 of the HNP FSAR.
- LCOs for HNP are located in the HNP Technical Specifications.
- HAR 2 and 3 SSCs important to safety are described in HAR FSAR Chapter 3.
- As indicated in Chapter 16, the LCOs for HAR 2 and 3 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 off-site 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 off-site transmission lines or impact to plant cooling water supplies.

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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 Control Measures | • Overhead Power Lines<br>• Transmission Towers<br>• Underground Conduits, Piping, Tunnels, Etc.<br>• Site Access and Egress<br>• Drainage Facilities and Structures<br>• On-Site Transportation Routes<br>• Slope Stability<br>• Soil Erosion and Local Flooding<br>• Construction-Generated Dust and Equipment Exhausts<br>• Encroachment on Plant Control Boundaries<br>• Encroachment on Structures and Facilities |
| Boring, Drilling, Pile Driving, Dredging, Demolition, Excavation | • Underground Conduits, Piping, Tunnels, Etc.<br>• Foundation Integrity<br>• Structural Integrity<br>• Slope Stability<br>• Erosion and Turbidity Control<br>• Groundwater and Groundwater Monitoring Facilities<br>• Dewatering Structures, Systems and Components<br>• Nearby Structures, Systems and Components<br>• Vibratory Ground Motion |
| Equipment Movement, Material Delivery, Vehicle Traffic | • Overhead Power Lines<br>• Transmission Towers<br>• Underground Conduits, Piping, Tunnels<br>• Crane Load Drops<br>• Crane or Crane Boom Failures<br>• Vehicle Accidents<br>• Rail Car Derailments |
| Equipment and Material Laydown, Storage, Warehousing | • Releases of Stored Flammable, Hazardous or Toxic Materials<br>• Wind-Generated, Construction-Related Debris and Missiles |

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**Table 1.10-201 (Sheet 2 of 2)**
**Potential Hazards from Construction Activities**

| Construction Activity Hazard | Potential Impact |
|---|---|
| General Construction, Erection, Fabrication | • Physical Integrity of Structures, Systems and Components<br>• Adjacent or Nearby Structures, Systems and Components<br>• Instrumentation and Control Systems and Components<br>• Electrical Systems and Components<br>• Cooling Water Systems and Components<br>• Waste Heat Environmental Controls and Parameters<br>• Radioactive Waste Release Points and Parameters<br>• Abandonment of Structures, Systems or Components<br>• Relocation of Structures, Systems or Components<br>• Removal of Structures, Systems or Components |
| Connection, Integration, Testing | • Instrumentation and Control Systems and Components<br>• Electrical and Power Systems and Components<br>• Cooling Water Systems and Components |

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**Table 1.10-202 (Sheet 1 of 2)**
**Hazards During Construction Activities**

| Construction Hazard | Impacted SSCs |
|---|---|
| Impact on Overhead Power Lines | • Off-Site Power System |
| Impact on Transmission Towers | • Off-Site Power Systems |
| Impact on Utilities, Underground Conduits, Piping, Tunnels, Tanks | • Fire Protection System<br>• Service Water System(1) |
| Impact of Construction-Generated Dust and Equipment Exhausts | • Control Room Emergency HVAC Systems(1)<br>• Diesel Generators |
| Impact of Vibratory Ground Motion | • Off-Site Power System<br>• On-Site Power Systems<br>• 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(1) |
| Impact of Wind-Generated, Construction-Related Debris and Missiles | • Safety-Related Structures<br>• Control Room Emergency HVAC Air Intake(1) |
| Impact on Electrical Systems and Components | • Off-Site Power System<br>• On-Site Power Systems |
| Impact on Cooling Water Systems and Components | • Service Water System(1)<br>• Ultimate Heat Sink(1) |
| Impact on Radioactive Waste Release Points and Parameters | • Gaseous and Liquid Radioactive Waste Management Systems |
| Impact of Relocation of Structures, Systems or Components | • Fire Protection System<br>• Service Water System(1) |
| Impact of Site Groundwater Depression and Dewatering | • Safety-Related Structures and Foundations |

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**Table 1.10-202 (Sheet 2 of 2)**
**Hazards During Construction Activities**

| Construction Hazard | Impacted SSCs |
|---|---|
| Impact of Equipment Delivery and Heavy Equipment Delivery | • Safety-Related Structures and Foundations |

[1] Not applicable to AP1000 operating units

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**Table 1.10-203 (Sheet 1 of 3)**
**Managerial and Administrative Construction Controls**

| Construction Hazards to SSCs | Managerial Control |
|---|---|
| Impact on Transmission Power Lines and Off-Site 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.<br>• 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. |

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**Table 1.10-203 (Sheet 2 of 3)**
**Managerial and Administrative Construction Controls**

| Construction Hazards to SSCs | Managerial Control |
|---|---|
| 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.<br>• 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. |
| Impact on Radioactive Waste Release Points and Parameters | • Engineering evaluation and managerial controls are implemented, as necessary, to prevent radioactive releases beyond the established limits due to construction activity. |
| Impact of Relocation of Structures, Systems or Components | • Administrative controls identify SSCs that require relocation. Temporary or permanent design changes are implemented if necessary. |

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**Table 1.10-203 (Sheet 3 of 3)**
**Managerial and Administrative Construction Controls**

| Construction Hazards to SSCs | Managerial Control |
|---|---|
| Impact of Equipment Delivery and Heavy Equipment Delivery | • Rail transport speed limits and maximum rail loading weights on-site are established.<br>• 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.

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

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STD SUP 1B-1

# APPENDIX 1B SEVERE ACCIDENT MITIGATION DESIGN ALTERNATIVES

DCD Appendix 1B is not incorporated into this FSAR. Rather, the severe accident mitigation design alternatives will be discussed 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."

APPENDIX 1AA CONFORMANCE WITH REGULATORY GUIDES

STD COL 1.9-1

| Criteria Section | Referenced Criteria | FSAR Position | Clarification/ Summary Description of Exceptions |
|---|---|---|---|
| DIVISION 1- Power Reactors | | | |
| **Regulatory Guide 1.7, Rev. 3, 03/07 – 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 ANSI/ANS-3.1-1993 | Exception | Not able to meet Regulatory Guide 1.8, 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, 03/07 - 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 1.16, Rev. 4, 8/75 – Reporting of Operating Information – Appendix A Technical Specifications** | | | |

| | Criteria Section | Referenced Criteria | FSAR Position | Clarification/ Summary Description of Exceptions |
|---|---|---|---|---|
| | C.1.a | | Conforms | |
| STD COL 1.9-1 | C.1.b, c | | Exception | The annual operating report and monthly operating report are submitted in accordance with the Technical Specifications |
| | C.2, C.4 | | Exception | Event reporting is performed in accordance with 10 CFR 50.72 and 50.73 utilizing the guidance of NUREG-1022. |
| | C.3 | | Exception | Technical Specification reporting requirements are implemented, as required. |
| | **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 | |
| | **Regulatory Guide 1.23, Rev. 1, 3/07 –Meteorological Monitoring Programs for Nuclear Power Plants** | | | |
| HAR COL 1.9-1 | Section B | | Exception | RG 1.23, Rev. 1 states that COLs should use consecutive 24 months of data as long as the data are |

| Criteria Section | Referenced Criteria | FSAR Position | Clarification/ Summary Description of Exceptions |
|---|---|---|---|
| | | | "defendable, representative and complete" and not more than 10 years old at time of COLA submittal. Meteorological data provided are for the 5-year period from March 1, 1994 to February 28, 1999. |
| C.2.1, C.2.2 | | Exception | RG 1.23, Rev. 1 states that measurements (wind speed and direction and vertical temperature difference) should be made at 10 m and 60 m. HNP/HAR Measurements are made at 12 m and 61 m. |
| C.2.3-C.2.5 | | Conforms | |
| C.3-C.5 | | Conforms | |
| C.6, Table 3 | | Exception | RG 1.23, Rev.1 states that the on-site wind data should be compiled into annual joint frequency tables (JFTs). The RG provides Table 3 as a "suitable format for data compilation and reporting." JFTs (Tables 2.3.2-201 through 2.3.2-252) were prepared using a similar format, but with the speed categories recommended by RG 1.23, Rev. 0. |
| C.7-C.9 | | Conforms | |

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**Regulatory Guide 1.26, Rev. 4, 3/07 – Quality Group Classifications and Standards for Water-, Steam-, and Radioactive-Waste-Containment 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.

Rev. 1

| Criteria Section | Referenced Criteria | FSAR Position | Clarification/ Summary Description of Exceptions |
|---|---|---|---|
| STD COL 1.9-1 | | 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)**

| | | |
|---|---|---|
| General | Exception | Quality assurance requirements utilize the more recently NRC endorsed NQA-1 in lieu of the identified outdated standards. |

**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**

| Criteria Section | Referenced Criteria | FSAR Position | Clarification/ Summary Description of Exceptions |
|---|---|---|---|
| STD COL 1.9-1 | 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. |
| | **Regulatory Guide 1.39, Rev. 2, 9/77 – Housekeeping Requirements 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. |

| Criteria Section | Referenced Criteria | FSAR Position | Clarification/ Summary Description of Exceptions |
|---|---|---|---|

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**Regulatory Guide 1.45, Rev. 0, 5/73 – Reactor Pressure Boundary Leakage-Detection Systems**

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

| | | |
|---|---|---|
| C.7 | Conforms | |

**Regulatory Guide 1.53, Rev. 2, 11/03 – Application of the Single-Failure Criterion to Nuclear Power Plant Protection 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.<br><br>ANSI/ANS 2.8-1992 was withdrawn on July 26, 2002. However, a replacement standard has not been issued. |

| | Criteria Section | Referenced Criteria | FSAR Position | Clarification/ Summary Description of Exceptions |
|---|---|---|---|---|
| STD COL 1.9-1 | | | | NUREG-0800 2.4.3 Revision 4, March 2007 and 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.

**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.

| | |
|---|---|
| C.2-C.9<br>Appendix B<br>Appendix C | Conforms |

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

| | Criteria Section | Referenced Criteria | FSAR Position | Clarification/ Summary Description of Exceptions |
|---|---|---|---|---|
| STD COL 1.9-1 | 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 |

| Criteria Section | Referenced Criteria | FSAR Position | Clarification/ Summary Description of Exceptions |
|---|---|---|---|

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**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. Conformance of the programmatic and/or operational aspects is documented below.

| | | |
|---|---|---|
| General | Exception | Steam generator tube surveillance is in accordance with Nuclear Energy Institute (NEI) 97-06. This guidance has been endorsed by NRC as an acceptable program basis. |

**Regulatory Guide 1.84, Rev. 33, 8/05 – Design, Fabrication, and Materials Code Case Acceptability, ASME Section III**

Conformance with Revision 31 of the Regulatory Guide is as stated in the DCD. This guidance is completely within the scope of the DCD.

**Regulatory Guide 1.86, Rev. 0, 6/74 - Termination of Operating Licenses for Nuclear Reactors**

This Regulatory Guide is outside the scope of the FSAR.

**Regulatory Guide 1.91, Rev. 1, 2/78 – Evaluations of Explosions Postulated to Occur on Transportation Routes Near 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 |

**Regulatory Guide 1.92, Rev. 2, 7/06 – Combining Modal Responses and Spatial Components in Seismic Response Analysis**

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

| | Criteria Section | Referenced Criteria | FSAR Position | Clarification/ Summary Description of Exceptions |
|---|---|---|---|---|
| STD COL 1.9-1 | General | | Exception | Quality assurance requirements utilize the more recently NRC endorsed NQA-1 in lieu of the identified outdated standards. |

**Regulatory Guide 1.97, Rev. 4, 6/06 – Criteria For Accident Monitoring Instrumentation For Nuclear Power Plants**

Conformance with Revision 3 of the Regulatory Guide is as stated in the DCD. This guidance is completely within the scope of the DCD.

**Regulatory Guide 1.101, Rev. 5, 6/05 – Emergency Response Planning and Preparedness for Nuclear Power Reactors**

| | | |
|---|---|---|
| General | | N/A |

**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.

| | | |
|---|---|---|
| General | | 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.

| | | |
|---|---|---|
| General | | 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**

| | | |
|---|---|---|
| General | | Conforms |

**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**

| | Criteria Section | Referenced Criteria | FSAR Position | Clarification/ Summary Description of Exceptions |
|---|---|---|---|---|
| STD COL 1.9-1 | 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** | | | |
| | General | | Conforms | |
| | **Regulatory Guide 1.114, Rev. 2, 5/89 – Guidance to Operators at the Controls and to Senior Operators in the Control Room of a Nuclear Power Unit** | | | |
| | General | | Conforms | |
| | **Regulatory Guide 1.115, Rev. 1, 1/77 – 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 | | Exception | Quality assurance requirements utilize the more recently NRC endorsed NQA-1 in lieu of the identified outdated standards. |
| | **Regulatory Guide 1.124, Rev. 2, 2/07 – 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. | | | |

| Criteria Section | Referenced Criteria | FSAR Position | Clarification/ Summary Description of Exceptions |
|---|---|---|---|
| STD COL 1.9-1 | **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** | | |
| | General | IEEE Std. 450-2002 | Exception | Approved Generic Technical Specifications are based on IEEE Std 450-1995. |
| | **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.3a | | Conforms |
| | C.6 | | Conforms |
| | **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. Conformance with Revision 0 of this Regulatory Guide for programmatic and/or operational aspects is documented below. | | |

| Criteria Section | Referenced Criteria | FSAR Position | Clarification/ Summary Description of Exceptions |
|---|---|---|---|
| | General | Conforms | |

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**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 | |

**Regulatory Guide 1.147, Rev. 14, 8/05 – Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1**

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 14 of this Regulatory Guide for programmatic and/or operational aspects is documented below.

| | | |
|---|---|---|
| General | Conforms | |

**Regulatory Guide 1.149, Rev. 3, 10/01 – Nuclear Power Plant Simulation Facilities for Use in Operator Training and License Examinations**

| | | |
|---|---|---|
| C.1 | Conforms | During cold licensing, training is conducted using a simulator with limited |

| | Criteria Section | Referenced Criteria | FSAR Position | Clarification/ Summary Description of Exceptions |
|---|---|---|---|---|
| STD COL 1.9-1 | | | | scope in 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-3.5-1998. |
| | **Regulatory Guide 1.150, Rev. 1, 2/83-Ultrasonic Testing of Reactor Vessel Welds During Preservice and Inservice Examinations** | | | |
| | 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 | | Exception | The Cyber Security Program is based on NEI 04-04 Revision 1 which has been identified by the NRC as an acceptable means for development of the program. |
| | **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 |

| Criteria Section | Referenced Criteria | FSAR Position | Clarification/ Summary Description of Exceptions |
|---|---|---|---|
| | | | scope of the FSAR. |

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**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. |

**Regulatory Guide 1.166, Rev. 0, 3/97 – Pre-Earthquake Planning and Immediate Nuclear Power Plant Operator Postearthquake Actions**

| | | |
|---|---|---|
| General | Conforms | |

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

| | | |
|---|---|---|
| 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.

| Criteria Section | Referenced Criteria | FSAR Position | Clarification/ Summary Description of Exceptions |
|---|---|---|---|

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

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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**

| | | |
|---|---|---|
| General | Conforms | |

**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 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 | 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**

| Criteria Section | Referenced Criteria | FSAR Position | Clarification/ Summary Description of Exceptions |
|---|---|---|---|
| STD COL 1.9-1 | 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. |
| | **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** | | |

| Criteria Section | Referenced Criteria | FSAR Position | Clarification/ Summary Description of Exceptions |
|---|---|---|---|
| | | N/A | This Regulatory Guide is outside the scope of the FSAR. |

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**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 Reactors**

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

| Criteria Section | Referenced Criteria | FSAR Position | Clarification/ Summary Description of Exceptions |
|---|---|---|---|
| **Regulatory Guide 1.199, Rev. 0, 11/03 – Anchoring Components and Structural Supports in Concrete** | | | |
| STD COL 1.9-1 | | 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 | |

| | Criteria Section | Referenced Criteria | FSAR Position | Clarification/ Summary Description of Exceptions |
|---|---|---|---|---|
| STD COL 1.9-1 | 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 | |
| Appendix C, Section C.3 | Exception 3.4 | Exception is taken to requirement that 0.05 and 0.95 fractile hazard curves be provided. These were not run. Hazard curves were run at 0.15 and 0.85th percentile instead of 0.16 and 84th as they are very close approximations (+/- 1 sigma). |

**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.

DIVISION 4 – Environmental and Siting

**Regulatory Guide 4.7 Rev. 2, 4/98 – General Site Suitability Criteria for Nuclear Power Stations**

| | | |
|---|---|---|
| General | Conforms | |

**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**

| | | |
|---|---|---|
| | Exception | The Guidance of Rev. 1, February 1979 will be followed as per the justification provided in FSAR Subsection 11.5.3. |

| Criteria Section | Referenced Criteria | FSAR Position | Clarification/ Summary Description of Exceptions |
|---|---|---|---|
| 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** | | | |
| | | N/A | 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. | | | |
| | | N/A | This Regulatory Guide is outside the scope 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 | | | |
| **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.<br><br>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<br><br>ANSI N 13.5-1972 | Exception | The reference to 10 CFR 20.202 (a) and 20.401 is no longer valid in the current version of 10 CFR Part 20.<br><br>ANSI N13.5-1972 was reaffirmed in 1989. |

| | Criteria Section | Referenced Criteria | FSAR Position | Clarification/ Summary Description of Exceptions |
|---|---|---|---|---|
| STD COL 1.9-1 | | | | 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** | | | |
| | General | | Conforms | |
| | **Regulatory Guide 8.6, Rev. 0, 5/73 - Standard Test Procedure for Geiger-Muller Counters** | | | |
| | General | | Exception | Instrument calibration program is based upon criteria in ANSI N323A-1997 (with 2004 Correction Sheet) “Radiation Protection Instrumentation Test and Calibration, Portable Survey 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 |

| Criteria Section | Referenced Criteria | FSAR Position | Clarification/ Summary Description of Exceptions |
|---|---|---|---|
| | | | 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. |

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**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 Guide 8.15, Rev. 1, 10/99 – Acceptable Programs for Respiratory Protection**

| | | | |
|---|---|---|---|
| General | | Conforms | |

**Regulatory Guide 8.27, Rev. 0, 3/81 – Radiation Protection Training for Personnel at Light-Water-Cooled Nuclear Power Plants**

| | | | |
|---|---|---|---|
| General | | Conforms | |

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

| | | | |
|---|---|---|---|
| General | ANSI N13.27-1981 | Conforms | |

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

| | | | |
|---|---|---|---|
| General | | Conforms | |

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

| Criteria Section | Referenced Criteria | FSAR Position | Clarification/ Summary Description of Exceptions |
|---|---|---|---|
| General | | Conforms | |

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

| | | | |
|---|---|---|---|
| General | | Conforms | |

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

| | | | |
|---|---|---|---|
| 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 | |

Note – 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.