Westinghouse

Westinghouse Electric Company
Nuclear Power Plants
P.O. Box 355
Pittsburgh, Pennsylvania 15230-0355
USA

U.S. Nuclear Regulatory Commission
ATTENTION: Document Control Desk
Washington, D.C. 20555

Direct tel: 412-374-6306
Direct fax: 412-374-5005
e-mail: sterdia@westinghouse.com

Your ref: Project Number 740
Our ref: DCP/NRC1931

June 11, 2007

Subject: AP1000 COL Standard Technical Report Submittal of APP-GW-GLN-129, (TR 129), Revision 0

In support of Combined License application pre-application activities, Westinghouse is submitting AP1000 Standard Combined License Technical Report Number 129. This report identifies and justifies standard changes to the AP1000 Design Control Document (DCD). The changes to the DCD identified in Technical Report 129 are included in the proposed amendment to the AP1000 Design Certification Rule (DCD Revision 16). This report is submitted as part of the NuStart Bellefonte COL Project (NRC Project Number 740). The information included in this report is generic and is expected to apply to all COL applications referencing the AP1000 Design Certification.

The purpose for submittal of this report was explained in a March 8, 2006 letter from NuStart to the NRC.

Pursuant to 10 CFR 50.30(b), APP-GW-GLN-129, Revision 0, "Changes to Conformance with Regulatory Guidance and Criteria," (Technical Report Number 129), is submitted as Enclosure 1 under the attached Oath of Affirmation.

It is expected that when the NRC review of Technical Report Number 129 is complete, the changes to the DCD identified in Technical Report 129 will be considered approved generically for COL applicants referencing the AP1000 Design Certification.

Questions or requests for additional information related to content and preparation of this report should be directed to Westinghouse. Please send copies of such questions or requests for additional information to the prospective applicants for combined licenses referencing the AP1000 Design Certification. A representative for each applicant is included on the cc: list of this letter.

Westinghouse requests the NRC to provide a schedule for review of the technical report within two weeks of its submittal.

D063
D079
NRO

Very truly yours,

A. Sterdis, Manager
Licensing and Customer Interface
Regulatory Affairs and Standardization

/Attachment

1. "Oath of Affirmation," dated June 11, 2007

/Enclosure

1. APP-GW-GLN-129, Revision 0, "Changes to Conformance with Regulatory Guidance and Criteria," Technical Report Number 129

cc:	D. Jaffe	-	U.S. NRC	1E	1A
	E. McKenna	-	U.S. NRC	1E	1A
	G. Curtis	-	TVA	1E	1A
	P. Grendys	-	Westinghouse	1E	1A
	P. Hastings	-	Duke Power	1E	1A
	C. Ionescu	-	Progress Energy	1E	1A
	D. Lindgren	-	Westinghouse	1E	1A
	A. Monroe	-	SCANA	1E	1A
	M. Moran	-	Florida Power & Light	1E	1A
	C. Pierce	-	Southern Company	1E	1A
	E. Schmiech	-	Westinghouse	1E	1A
	G. Zinke	-	NuStart/Entergy	1E	1A
	D. Hutchings	-	Westinghouse	1E	1A

ATTACHMENT 1

UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

In the Matter of:	)
NuStart Bellefonte COL Project	)
NRC Project Number 740	)

APPLICATION FOR REVIEW OF
"AP1000 GENERAL COMBINED LICENSE INFORMATION"
FOR COL APPLICATION PRE-APPLICATION REVIEW

B. W. Bevilacqua, being duly sworn, states that he is Vice President, New Plants Engineering, for Westinghouse Electric Company; that he is authorized on the part of said company to sign and file with the Nuclear Regulatory Commission this document; that all statements made and matters set forth therein are true and correct to the best of his knowledge, information and belief.

Bruce H. Bevilacqua

B. W. Bevilacqua
Vice President
New Plants Engineering

Subscribed and sworn to
before me this 11th day
of June 2007.

COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Debra McCarthy, Notary Public
Monroeville Boro, Allegheny County
My Commission Expires Aug. 31, 2009
Member, Pennsylvania Association of Notaries

Debra McCarthy
Notary

ATTACHMENT 1

"Oath of Affirmation"

ENCLOSURE 1

APP-GW-GLN-129, Revision 0

"Changes to Conformance with Regulatory Guidance and Criteria"

Technical Report 129

AP1000 DOCUMENT COVER SHEET

TDC: _____ Permanent File: _____ APY: _____

RFS#: _____ RFS ITEM #: _____

AP1000 DOCUMENT NO.	REVISION NO.		ASSIGNED TO
APP-GW-GLN-129	0	Page 1 of 38	W-Sterdis

ALTERNATE DOCUMENT NUMBER: TR-129 WORK BREAKDOWN #:

ORIGINATING ORGANIZATION:

TITLE: **Changes to Conformance with Regulatory Guidance and Criteria**

ATTACHMENTS:	DCP #/REV. INCORPORATED IN THIS DOCUMENT REVISION: N/A
CALCULATION/ANALYSIS REFERENCE:	

ELECTRONIC FILENAME	ELECTRONIC FILE FORMAT	ELECTRONIC FILE DESCRIPTION

☒ WESTINGHOUSE CLASS 3 (NON PROPRIETARY)

Class 3 Documents being transmitted to the NRC require the following two review signatures in lieu of a Form 36.

LEGAL REVIEW	J.C. VALENTINE	SIGNATURE/DATE	6/5/2007
PATENT REVIEW	M. CORLETTI	SIGNATURE/DATE	6/4/2007

☐ WESTINGHOUSE PROPRIETARY CLASS 2

This document is the property of and contains Proprietary Information owned by Westinghouse Electric Company LLC and/or its subcontractors and suppliers. It is transmitted to you in confidence and trust, and you agree to treat this document in strict accordance with the terms and conditions of the agreement under which it was provided to you.

ORIGINATOR D. A. Lindgren	SIGNATURE/DATE	6/4/2007	
REVIEWERS	SIGNATURE/DATE		
VERIFIER D.F. Hutchings	SIGNATURE/DATE	6/4/07	VERIFICATION METHOD Pg by Pg review
AP1000 RESPONSIBLE MANAGER	SIGNATURE*		APPROVAL DATE 6 Jun 07

* Approval of the responsible manager signifies that document is complete, all required reviews are complete, electronic file is attached and document is released for use.

APP-GW-GLN-129
Revision 0

June 2007

AP1000 Standard Combined License Technical Report

Changes to Conformance with Regulatory Guidance and Criteria

Document Number: APP-GW-GLN-129 **Revision Number:** 0

Title: Changes to Conformance with Regulatory Guidance and Criteria

Brief Description of the change (what is being changed and why):

The purpose of this report is to change descriptions of the conformance of the AP1000 with regulatory guides and other NRC regulatory guidance. The conformance descriptions are changed to improve description of COL applicant activities and to reflect design changes described in other technical reports. This report does not change the design or function of structure, system, and components.

I. APPLICABILITY DETERMINATION

This evaluation is prepared to document that the change described above is a departure from Tier 2 information of the AP1000 Design Control Document (DCD) that may be included in plant specific FSARs without prior NRC approval.

A.	Does the proposed change include a change to:		
	1. Tier 1 of the AP1000 Design Control Document APP-GW-GL-700	☒ NO ☐ YES	(If YES prepare a report for NRC review of the changes)
	2. Tier 2* of the AP1000 Design Control Document, APP-GW-GL-700	☒ NO ☐ YES	(If YES prepare a report for NRC review of the changes)
	3. Technical Specification in Chapter 16 of the AP1000 Design Control Document, APP-GW-GL-700	☒ NO ☐ YES	(If YES prepare a report for NRC review of the changes)
B.	Does the proposed change involve:		
	1. Closure of a Combined License Information Item identified in the AP1000 Design Control Document, APP-GW-GL-700	☒ NO ☐ YES	(If YES prepare a COL item closure report for NRC review.)
	2. Completion of an ITAAC item identified in Tier 1 of the AP1000 Design Control Document, APP-GW-GL-700	☒ NO ☐ YES	(If YES prepare an ITAAC completion report for NRC review.)

☒ The questions above are answered no, therefore the departure from the DCD in a COL application does not require prior NRC review unless review is required by the criteria of 10 CFR Part 52 Appendix D Section VIII B.5.b. or B.5c

II. TECHNICAL DESCRIPTION AND JUSTIFICATION

This report changes descriptions of the conformance of the AP1000 with regulatory guides and other NRC regulatory guidance in the AP1000 Design Control Document. The conformance descriptions are changed to improve descriptions of COL applicant activities by specifying a specific subsection that defines the COL applicant's responsibility for additional activity. In some cases design completion efforts since the original design certification have altered the conformance statement that the criteria are not applicable to AP1000 design certification. In a limited number of cases the changes reflect design changes described in other technical reports or subsequent changes in NRC regulatory guidance or requirements.

This report does not change the design or function of structure, system, and components. The design changes reflected in the changes to the conformance statements are explained in other technical reports.

III. DCD MARK-UP

Changes to 1.8

Add a COL information item to Table 1.8-2 as follows:

Table 1.8-2 (Sheet 1 of 7)

SUMMARY OF AP1000 STANDARD PLANT COMBINED LICENSE INFORMATION ITEMS

Item No.	Subject	Subsection
1.1-1	Construction and Startup Schedule	1.1.7
1.9-1	Regulatory Guide Conformance	1.9.1.5
2.1-1	Geography and Demography	2.1.1

Changes to Section 1.9

Add Subsection 1.9.1.5 as follows:

1.9.1.5 Combined License Information

The Combined License applicant, will address conformance with regulatory guides that are not applicable to the certified design or not addressed by the activities required by COL information items. The Regulatory Guides included in this information item are as follows

- Reg. Guide 1.86, Rev. 0, 6/74 – Termination of Operating Licenses for Nuclear Reactors
- Reg. Guide 1.111, Rev. 1, 7/77 – Methods for Estimating Atmosphere Transport and Dispersion of Gaseous Effluents in Routine Releases from Light-Water-Cooled Reactors
- Reg. 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
- Reg. Guide 1.159, Rev. 0, 8/90 – Assuring the Availability of Funds for Decommissioning Nuclear Reactors
- Reg. Guide 1.162, Rev. 0, 2/96 – Format and Content of Report for Thermal Annealing of Reactor Pressure Vessels

- Reg. Guide 1.174, Rev. 0, 7/98 – An Approach for using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis
- Reg. Guide 1.179, Rev. 0, 9/99 – Standard Format and Content of License Termination Plans for Nuclear Power Reactors
- Reg. Guide 1.181, Rev. 0, 9/99 – Content of the Updated Final Safety Analysis Report in Accordance with 10 CFR 50.71(e)
- Reg. Guide 1.184, Rev. 0, 8/00 – Decommissioning of Nuclear Power Reactors
- Reg. Guide 1.185, Rev. 0, 8/00 – Standard Format and Content for Post-shutdown Decommissioning Activities Report
- Reg. Guide 1.186, Rev. 0, 12/00 – Guidance and Examples of Identifying 10 CFR 50.2 Design Bases
- Reg. Guide 1.187, Rev. 0, 11/00 – Guidance for Implementation of 10 CFR 50.59, Changes, Tests, and Experiments
- Reg. Guide 5.9 Rev. 2, 12/83 – Specifications for Ge (Li) Spectroscopy Systems for Material Protection Measurements Part 1: Data Acquisition Systems

Revise the response to 1.9.3, (2)(i) Simulator Capability (NUREG-0933 Item I.A.4.2) as follows:

Simulator capability is not included within the scope of the AP1000 design certification. Functional requirements for simulator capability are derived from Human Factors Engineering Program described in Chapter 18. ~~Provision of simulator capability is the Combined License applicant's responsibility.~~

Revise the of the response to 1.9.3, (2)(ii) Plant Procedures (NUREG-0933 Item I.C.9) as follows:

~~As specified in~~ See Chapter 13 of the DCD~~,~~ for a discussion of plant procedures, training of operations personnel and emergency planning. ~~are the responsibility of the Combined License applicant.~~

~~Activities in the Design Certification Process assist the Combined License applicant in performance of several of these tasks. First, the Emergency Response Guidelines (ERGs) provide the framework for development of site-specific emergency procedures. Second, DCD Section 18.10 describes the designers input for the design and implementation of training for a human factors engineering verification and validation (V&V) test subject. Also, DCD Section 17.4 describes the AP1000 reliability assurance program (RAP), which is instituted by the plant designer and carried on by the Combined License applicant. All reliability analyses performed under the reliability assurance program use common data bases from Westinghouse and industry sources such as INPO and EPRI. The reliability assurance program includes the identification of systems, structures, and components identified as major contributors to total risk, with the~~

~~dominant failure modes identified and prioritized. The suggested means to prevent or mitigate these failure modes form the basis for the plant surveillance, testing, and maintenance programs. See Chapter 18 for additional human factors engineering information.~~

Revise the fourth paragraph in the response to 1.9.3, (2)(vii)Plant Radiation Shielding (NUREG-0737 Item II.B.2) as follows:

~~As noted in s~~Subsection 12.2.3~~,~~ defines the responsibility to ~~the Combined License applicant will~~ address any additional contained radiation sources not identified in 12.2.1. Thus, appropriate source terms have been identified and used in establishing that the requirements of Item II.B.2 of NUREG-0737 and GDC 19 are met and the issues are resolved.

Revise the response to 1.9.3, (2)(xxv) Emergency Response Facilities (NUREG-0737 Item III.A.1.2) as follows:

The AP1000 provides for an onsite technical support center and an operational support center. See the figures in Section 1.2 for additional information on the location. The detailed design of the workstations and the associated man-machine interface for the technical support center and the operational support center is guided by the human factors engineering design process described in Chapter 18 of the DCD. The offsite emergency response facility is discussed in subsection 18.2.6. ~~the responsibility of the Combined License applicant. The implementation and results of the human factors engineering design process when applied to the technical support center and the operational support center is the responsibility of the Combined License applicant.~~

Revise the response to 1.9.3, (3)(vii) Management Plan (NUREG-0933 Item II.J.3.1) as follows:

The AP1000 design team has developed a management plan for the AP1000 project which consists of a properly structured organization with open lines of communication, clearly defined responsibilities, well-coordinated technical efforts, and appropriate control channels. The procedures to be used in the construction, startup, and operation phases of the plant are provided in accordance with the Master Plan and Procedure Development Process identified in APP-GW-GLR-040 (Reference 72). ~~by the Combined License applicant.~~

Revise the response to 1.9.4.2.3, II.K.1(10) Review and Modify Procedures for Removing Safety-related Systems from Service as follows:

~~Procedure development is the responsibility of the Combined License applicant as stated in~~ DCD Section 13.5 describes the AP1000 procedure development, preparation, and responsibility.

Revise the final paragraph of the response to A-31 Residual Heat Removal Requirements as follows:

Since the passive core cooling system maintains safe conditions indefinitely, cold shutdown is necessary only to gain access to the reactor coolant system for inspection or repair. On the AP1000, cold shutdown is accomplished by using nonsafety-related systems. These systems are highly reliable. They have similar redundancy as current generation safety-related systems and are supplied with ac power from either onsite or offsite sources. See subsection 5.4.7 for a description

of the normal residual heat removal system and subsection 7.4.1.~~2~~ 3 for a discussion of cold shutdown achieved by use of nonsafety-related systems.

Revise the response to 1.9.4.2.3, Issue 79 Unanalyzed Reactor Vessel Thermal Stress During Natural Convection Cooldown as follows:

The natural circulation cooldown transient is evaluated as part of ASME Code vessel evaluations and is discussed in Subsection 3.9.1.1.2.11. The ~~procedures~~ reporting requirements to address the requirements of 10CFR 50.73 (a)(2)(ii)(B) referenced in Generic Letter 92-02 are the responsibility of the Combined License ~~Applicant~~holder.

Revise the response to 1.9.4.2.3, Issue 103Design for Probable Maximum Precipitation as follows:

AP1000 Response:

This is a site-related parameter. The AP1000 is designed for air temperatures, humidity, precipitation, snow, wind, and tornado conditions as specified in Table 2~~.0~~-1. ~~The Combined License applicant will demonstrate that the site parameters are within the limits specified for the standard design.~~

The site is acceptable if the site characteristics fall within the AP1000 plant site design parameters in Table 2-1. For cases where a site characteristic exceeds the envelope parameter, ~~it will be necessary for the Combined License applicant referencing the AP1000 to demonstrate that the site characteristic does not exceed the capability of the design. For additional information on the site interface parameters,~~ see Chapter 2.

Revise the final paragraph of the response to 1.9.4.2.3, Issue 113 Dynamic Qualification Testing of Large-Bore Hydraulic Snubbers as follows:

Subsection 3.9.8.3 defines the responsibility to provide ~~identifies the requirement for Combined License applicant~~ information on snubber operability testing.

Revise the ninth bullet under Task 3 of the response to 1.9.4.2.3, Issue 135 Integrated Steam Generator Issues as follows:

- Organizational responses: Chapter 13 identifies ~~that~~ the requirements for organizational responses. ~~are a part of the combined license application.~~

Revise the response to 1.9.4.2.3, Issue 163 Multiple Steam Generator Tube Leakage as follows:

The AP1000 plant response to a main steam line break (MSLB) scrams the reactor automatically and removes decay heat via the intact generator or the PRHR heat exchanger. If the MSLB is not isolated, the RCS will continue to lose coolant after shutdown through leaking steam generator tubes; the plant responds to the scenario as a small LOCA. The core makeup tanks drain and produce a low level signal. The plant protection and monitoring system depressurizes the RCS via the automatic depressurization system (ADS). The core remains covered throughout the scenario. Once the RCS is depressurized, the much lower reactor coolant system ~~containment~~ pressure stops

the ~~containment~~ water loss through the leaking steam generator tubes. Therefore, no long-term core uncovery is expected.

Revise the response to 1.9.4.2.3, Issue 168 Environmental Qualification of Electrical Equipment as follows:

This issue applies to operating plants and does not apply to the AP1000. ~~Design Certification and Combined License actions on the AP1000 will be based upon current cable requirements. Reassessments are not required.~~

Revise 1.9.4.2.3, Issue 191Assessment of Debris Accumulation on PWR Sump Performance as follows:

Issue 191 Assessment of Debris Accumulation on PWR Sump Performance

Discussion:

This issue addresses new contributors to debris and possible blockage of PWR sumps. Generic Letter (GL) 2004-02 (Reference 2), issued in September 2004, identified actions that utilities must take to address the sump blockage issue. The NRC position is that plants must be able to demonstrate that debris transported to the sump screen after a LOCA will not lead to unacceptable head loss for the recirculating flow. For the AP1000, this requirement is interpreted as demonstrating that debris transported to recirculating screens will not significantly impede flow through the PXS and will not adversely affect the long-term operation of the PXS.

AP1000 Position:

The AP1000 Nuclear Power Plant uses natural recirculation for cooling the core following a loss of coolant accident (LOCA).

Screens are provided in strategic areas of the plant to remove debris that might migrate with the water in containment and adversely affect core cooling. Accordingly, it must be assured that the screens themselves are not susceptible to plugging.

Technical report APP-GW-GLR-079 (Reference 71), "AP1000 Verification of Water Sources for Long-Term Recirculation Cooling Following a LOCA" evaluates the potential for debris to plug the AP1000 screens consistent with Regulatory Guide 1.82 Revision 3 and subsequently issued Nuclear Regulatory Commission guidance. The evaluation considers the various potential contributors to screen plugging. It considers debris that could be produced by a LOCA as well as resident fibers and particles that could be present in containment prior to the LOCA. It considers the AP1000 containment design, equipment locations, and containment cleanliness program. The evaluation uses debris characteristics based on sample measurements from operating plants and evaluates the generation of chemical precipitants considering materials used inside the AP1000 containment, the post-accident water chemistry, and applicable research and testing. The AP1000 screen designs are acceptable.

~~The AP1000 has two sets of screens to which this issue may apply: the sump recirculation screens and the IRWST recirculation screens.~~

~~For the sump recirculation screens, an increase in pressure drop due to a mixed fiber-particulate was calculated and is considered conservative for the following reasons:~~

- ~~The limiting flow case was assumed. That is, only one of the two recirculation screens was taken to be operable due to the assumed break location. This provided for a maximum velocity to and across the operating recirculation screen, and also maximized the potential for debris transport to the operating recirculation screen.~~

- ~~The total amount of latent containment debris used in the evaluation is considered large. An aggressive foreign materials exclusion program and good housekeeping practices are expected to maintain latent containment debris sources well below the 500 pound level.~~

- ~~The maximum debris loading on the containment recirculation screen is assumed. No credit is taken for the holdup of latent containment debris elsewhere in the containment (in dead-ended cubicles and rooms, on IRWST screens, and the like.)~~

- ~~A conservatively low density for the latent fibrous debris was assumed. Assuming the latent fibrous debris had a density equal to that of water provided for a maximum volume of fibrous debris, and hence a maximum thickness of the resulting debris bed, on the recirculation screen.~~

~~Therefore, it was concluded that the current AP1000 design is not susceptible to loss of natural circulation of coolant from the containment due to sump recirculation screen blockage resulting from deposition of latent containment debris on the recirculation screen.~~

~~A study was also performed for the IRWST recirculation screens. Even though there is a low probability of having debris in the IRWST and having that debris transported to the screens, the IRWST screens and the PXS have significant capability to tolerate debris. A bounding analysis of the pressure drop that could be caused by debris (fiber and particle) on the IRWST screens has been performed for the AP1000.~~

~~It was concluded that the current AP1000 design is not susceptible to degradation of IRWST gravity injection flow due to IRWST recirculation screen blockage resulting from deposition of latent containment debris on the screens.~~

Revise 1.9.4.2.4, HF4.4 Guidelines for Upgrading Other Procedures as follows:

~~Procedure development is the responsibility of the Combined License applicant as stated in DCD Section 13.5~~

The process to manage the development, review and approval of AP1000 Normal Operating, Abnormal Operating, Emergency Operating, Refueling and outage planning, Alarm response, Administrative, Maintenance, Inspection, Test and Surveillance Procedures as well as the procedures which address the operation of post-72 hour equipment is delineated in APP-GW-GLR-040, (Reference 72).

Writer's Guidelines have been developed which control the preparation of Normal Operating Procedures and Two-Column Format Procedures. The Writer's Guidelines establish programmatic

guidelines. The criteria and methodology for procedure development is described in this technical report and in Westinghouse Writer's Guidelines, and Human Factors-related procedures have been developed in accordance with these criteria/guidelines.

Revise the sixth bullet of the response to 1.9.5.1.5 Station Blackout as follows:

- ~~A n~~Nonsafety-related reserve auxiliary transformers to provide power to selected ac power systems

Revise the ninth bullet of the response to 1.9.5.1.5 Station Blackout as follows:

- An automatic nonsafety-related load-sequencing circuit that starts the following redundant nonsafety-related equipment after a loss of offsite power, once the associated diesel-generator is started:
  - Startup feedwater pump
  - Component cooling water pump
  - Service water pump
  - ~~Battery chargers~~

Revise of the response to 1.9.5.1.15, In-Service Testing of Pumps and Valves as follows:

~~The~~ Subsection 3.9.8.4 defines the responsibility for the in-service testing program for ASME Code Class 1, 2, and 3 valves. ~~is the responsibility of the Combined License applicant. See subsection 3.9.6 for additional information.~~

Revise of the response to 1.9.5.2.6 Tornado Design Basis as follows:

The AP1000 is designed in accordance with the NRC recommendations for a maximum tornado wind speed of 300 mph, as described in Section 3.3. The AP1000 site interface defined in Chapter 2 provides information to ~~that the Combined License applicant~~ evaluate other site hazards if appropriate.

Revise of the response to 1.9.5.2.14, Site-Specific Probabilistic Risk Assessments (PRAs) as follows:

The AP1000 PRA submitted as a part of the design certification application is based on a site that bounds a large percentage of plant sites in the United States and is described in Chapter 2. APP-GW-GLR-101 (Reference 73), identifies the potential external events that may impact the AP1000 risk on a site-specific basis. This technical report considers a wide range of site-specific external events as long as a site can show that the external events listed in this report bound those applicable to the site. The report also discusses impact of site selection on PRA Level 3 requirements. ~~The information in the AP1000 PRA evaluation is available to the Combined License applicant to develop a PRA evaluation that addresses site specific hazards.~~

Document Number: APP-GW-GLN-129 **Revision Number:** 0

Title: Changes to Conformance with Regulatory Guidance and Criteria

Revise of the response to 1.9.5.3.7 Simplification of Off-Site Emergency Planning as follows:

> The AP1000 PRA evaluation risk assessment includes calculations of the AP1000 response to severe accidents. This response includes the release of radionuclides following a severe accident. This analysis supports the technical basis for simplification of offsite emergency planning. The offsite emergency planning is discussed in Section 13.3. ~~the responsibility of the Combined License applicant.~~

Revise Subsection 1.9.6 References as follows

1.9.6 References

71. APP-GW-GLR-079, "AP1000 Verification of Water Sources for Long-Term Recirculation Cooling Following a LOCA."

72. APP-GW-GLR-040, "Plant Operations, Surveillance, and Maintenance Procedures."

73. APP-GW-GLR-101, "AP1000 Probabilistic Risk Assessment External Events Evaluation to Support COL Applications."

Revise Table 1.9-1 entries as shown below:

Division 1 Regulatory Guide		DCD Chapter, Section or Subsection
1.91	Evaluations of Explosions Postulated to Occur on Transportation Routes Near Nuclear Power Plant Sites (Rev. 1, February 1978)	~~This regulatory guide is not applicable to AP1000 design certification.~~ 19.58
1.124	Service Limits and Loading Combinations for Class 1 Linear-Type Component Supports (Rev. 1, January 1978)	3.9.3, 9.1.2.1
1.168	Verification, Validation, Reviews, and Audits for Digital Computer Software Used in Safety Systems of Nuclear Power Plants (Rev. ~~0~~1, ~~September 1997~~ February 2004)	~~This regulatory guide is not applicable to AP1000 design certification~~ 7
1.169	Configuration Management Plans for Digital Computer Software Used in Safety Systems of Nuclear Power Plants (Rev. 0, September 1997)	~~This regulatory guide is not applicable to AP1000 design certification~~ 7
1.170	Software Test Documentation for Digital Computer Software Used in Safety Systems of Nuclear Power Plants (Rev. 0, September 1997)	~~This regulatory guide is not applicable to AP1000 design certification~~ 7
1.171	Software Unit Testing for Digital Computer Software Used in Safety Systems of Nuclear Power Plants (Rev. 0, September 1997)	~~This regulatory guide is not applicable to AP1000 design certification~~ 7

1.172	Software Requirements Specifications for Digital Computer Software Used in Safety Systems of Nuclear Power Plants (Rev. 0, September 1997)	~~This regulatory guide is not applicable to AP1000 design certification~~ 7
1.173	Developing Software Life Cycle Processes for Digital Computer Software Used in Safety Systems of Nuclear Power Plants (Rev. 0, September 1997)	~~This regulatory guide is not applicable to AP1000 design certification~~ 7
1.180	Guidelines for Evaluating Electromagnetic and Radio-Frequency Interference in Safety-Related Instrumentation and Control Systems (Rev. ~~0~~1, ~~January 2000~~ October 2003)	~~This regulatory guide is not applicable to AP1000 design certification~~ Appendix 3D

Revise footnote f. to Table 1.9-2 as follows:

f. Issue is not an AP1000 design certification issue. Issue is applicable to current operating plants or programmatic in nature. ~~responsibility of Combined License applicant.~~

Changes to Appendix 1A

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.8 as follows:

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

General	N/A	Not applicable to AP1000 design certification. Section 13.2.1 defines the responsibility for the training program for plant personnel ~~This is the Combined License applicant's responsibility. See Section 13.2 for the Combined License information item on training.~~

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.12, Criterion C.8 as follows:

Reg. Guide 1.12, Rev. 2, 3/97 – Instrumentation for Earthquakes

C.8	~~Combined~~N/A	Not applicable to AP1000 design certification ~~Maintenance procedures will be developed by the Combined License applicant.~~ Section 13.5 defines the responsibility for development of procedures

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.16 as follows:

Reg. Guide 1.16, Rev. 4, 8/75 – Reporting of Operating Information – Appendix A Technical Specifications

General	N/A	Not applicable to AP1000 design certification. ~~This is the Combined License applicant's responsibility.~~ Reporting Requirements associated with the technical specification are identified in Tech. Spec. Section 5.6. DCD Subsection 1.1.1 defines the responsibility to finalize the technical specification.

Revise the first paragraph of the Clarification/Summary Description of Exceptions for Reg. Guide 1.20 as follows:

Reg. Guide 1.20, Rev. 2, 5/76 – Comprehensive Vibration Assessment Program For Reactor Internals During Preoperational and Initial Startup Testing

General	Conforms	The AP1000 internals are similar to those for a three-loop XL Westinghouse 17 x 17 robust fuel assembly core internals, a core shroud and the new incore instrumentation system. ~~The neutron panels are eliminated from the downcomer region.~~ The upper internals are not significantly changed from standard designs.

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.20, Criteria C.2 as follows:

C.2	Conforms	A comprehensive vibration assessment program will be developed for the first AP1000 reactor vessel internals. With regard to transients, data are acquired only during the hot functional test. Additionally, data are calculated over the ranges of hot functional test temperatures and during startup, shutdown, and steady-state operation of various combinations of reactor coolant pumps. ~~See s~~Subsection 3.9.8 ~~for information to be provided by the Combined License applicant.~~addresses information provided about the vibration assessment program.

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.21 as follows:

Reg. 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

General	Conforms	The design guidance of this regulatory guide for the selection of locations and type of effluent measurements to cover major or potentially significant pathways of release of radioactive materials during normal reactor operation, including anticipated operational occurrences, are incorporated in the plant design and in the requirements of the radiological effluent technical specifications. The calibration of effluent monitoring systems is performed according to written plant procedures. ~~This is the Combined License applicant's responsibility.~~ Section 11.5.7 defines the responsibility for the radiation monitoring program. Section 13.5.1 defines the responsibility for the plant procedure preparation.
C.1	N/A	Not applicable to AP1000 design certification. ~~This is the Combined License applicant's responsibility.~~Section 11.5.7 defines the responsibility for the radiation monitoring program.
C.2	Conforms	
C.3-14	N/A	Not applicable to AP1000 design certification. ~~This is the Combined License applicant's responsibility.~~ Section 11.5.7 defines the responsibility for the radiation monitoring program.

Revise the first paragraph of the Clarification/Summary Description of Exceptions for Reg. Guide 1.23 as follows:

Reg. Guide 1.23, Second Proposed Rev. 1, 4/86 – Onsite Meteorological Programs

General	Conforms	The onsite meteorological measurement program is site-specific and will be defined as indicated in DCD Subsection 2.3.6. ~~by the Combined License applicant.~~ The number and location of meteorological instrument towers are determined by actual site parameters. ~~See s~~Subsection 2.3.6 defines the responsibility for ~~the Combined License applicant information item on~~ the onsite meteorological program.

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.27, Criteria C.2 as follows:

C.2	Conforms	The AP1000 design conforms to this regulatory position, provided that the definition of a single failure of a man-made structure does not include the safety-related, seismically-designed containment structure assembly. The AP1000 uses the atmosphere as the ultimate heat sink. A baffle located between the containment shell and the shield building sustains the natural circulation that provides for air flow over the containment shell to carry heat away. The baffle is composed of a large number of panels and will continue to function if damaged by an external missile. ~~passing through the air vents in the shield building.~~

Revise the second paragraph of Clarification/Summary Description of Exceptions for Reg. Guide 1.29, Criteria C.1.d as follows:

The 72-hour sizing calculation accounts for the maximum loss of water due to the rupture of non-seismic piping. Seismic Category I components within the spent fuel pool cooling system include the containment penetration, the connections for makeup, and the spent fuel pool ~~(refueling system)~~.

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.30 as follows:

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

General	ANSI/ASME N45.2.4-1972	N/A	Not applicable to AP1000 design certification. ~~This is the responsibility of the Combined License applicant. See~~ Section 17.5 defines the responsibility for the Quality Assurance program. ~~for the Combined License information item.~~

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.32, Criteria 1.c and.2.a as follows:

1.c	IEEE Std. 450-1975	N/A	Not applicable to AP1000 design certification. Section 13.5 defines the responsibility for the development of procedures. ~~This is a Combined License applicant responsibility.~~
2.a	IEEE Std. 308-1974, Section 8.2, 8.3.1;	N/A	The AP1000 is a single-unit plant. T~~herefore, t~~his ~~is~~ criterion is not applicable to the AP1000. When two

	Regulatory Guide 1.81		or more AP1000s are located adjacent, electrical systems, are not shared.

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.33 as follows:

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

General	ANSI N18.7-1976 ANS-3.2	N/A	Not applicable to AP1000 design certification. ~~This is the Combined License applicant's responsibility. See~~ Section 17.5 defines the responsibility for the Quality Assurance program.~~for the Combined License information item.~~ Regulatory Guide 1.33 is used in a specific manner for determining documentation adequacy in regard to ongoing qualification method based on the assumption the utility programs are in conformance with Regulatory Guide 1.33.

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.37 as follows:

Reg. Guide 1.37, Rev. 0, 3/73 – Quality Assurance Requirements for Cleaning of Fluid Systems and Associated Components of Water Cooled Nuclear Power Plants

General	ANSI N45.2.1-1973	Exception	The ANSI N45.2 series of standards that are referenced by the current revisions of the Quality Assurance regulatory guides have been replaced by ASME NQA-1~~-and NQA-2~~. ANSI N45.2.1, which is referenced in Regulatory Guide 1.37, has been incorporated into NQA-~~2~~1 ~~P~~Subpart 2.1. The technical requirements specified in ANSI N45.2.1 and NQA-~~2~~1 ~~P~~Subpart 2.1 are compatible. Therefore, compliance with NQA-~~2~~ 1 ~~Part~~ Subpart 2.1 satisfies Regulatory Guide 1.37. ~~See~~ Section 17.5 ~~for the Combined License information item~~defines the responsibility for the Quality Assurance program.

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.38 as follows:

Reg. 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

General	ANSI N45.2.2-1972	Exception	The ANSI N45.2 series of standards that are referenced by the current revisions of the Quality Assurance regulatory guides have been replaced by ASME NQA-1~~-and NQA-2~~. Refer to the Regulatory Guide 1.28 position. ~~See~~ Section 17.5 ~~for the Combined License information item~~defines the responsibility for the Quality Assurance program.

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.39 as follows:

Reg. Guide 1.39, Rev. 2, 9/77 – Housekeeping Requirements for Water-Cooled Nuclear Power Plants

General	ANSI N45.2.3-1973	Exception	The ANSI N45.2 series of standards that are referenced by the current revisions of the Quality Assurance regulatory guides have been replaced by ASME NQA-1~~-and NQA-2~~. Refer to the Regulatory Guide 1.28 position. ~~See~~ Section 17.5 ~~for the Combined License information item~~defines the responsibility for the Quality Assurance program.

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.54, Criteria C.2.a as follows:

Reg. Guide 1.54, Rev. 1, 3/00 – Quality Assurance Requirements for Protective Coatings Applied to Water-Cooled Nuclear Power Plants

General	ASTM D 3843-00, ASTM D 3911-95, ASTM D 5144-00	Exception	Some coatings inside containment are nonsafety-related and satisfy appropriate ASTM Standards. See subsection 6.1.2 for additional information. Application is controlled by procedures using qualified personnel to provide a high quality product. The paint materials for ~~nonsafety-related~~ coatings inside the containment are subject to 10 CFR Part 50 Appendix B Quality Assurance requirements. The quality assurance features of the AP1000 coatings systems are outlined in DCD Subsection 6.1.2.1.6. ~~The Combined License applicant is responsible for preparing the programs for safety-related coatings and for procurement of nonsafety-related coatings inside containment. The degree of conformance with Reg. Guide 1.54 will be a function of the program developed by the Combined License applicant. See s~~Subsection 6.1.3 defines the responsibility for the coating program. ~~for the Combined License information item.~~

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.59 as follows:

Reg. Guide 1.59, Rev. 2, 8/77 – Design Basis Floods for Nuclear Power Plants

C.1-4	Regulatory Guide 1.29	N/A	The maximum water level due to the probable maximum flood is established as a site interface in Chapter 2 and is used in the design of the AP1000. Subsection 2.4.1.2 defines the responsibility for addressing site-specific information on historical flooding and potential flooding factors. ~~This is the Combined License applicant's responsibility.~~

Document Number: APP-GW-GLN-129 **Revision Number:** 0

Title: Changes to Conformance with Regulatory Guidance and Criteria

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.68, Criteria C2 through C9, Appendix B, and Appendix C as follows:

C.2 through C9		N/A	Section 14.2 describes the AP1000 plant initial test program. Section 14.4 describes the responsibilities required to perform the AP1000 plant initial test program.~~Not applicable to AP1000 design certification. This is the Combined License applicant's responsibility.~~
General	Appendix B	N/A	Section 14.2 describes the AP1000 plant initial test program. Section 14.4 describes the responsibilities required to perform the AP1000 plant initial test program.~~Not applicable to AP1000 design certification. This is the Combined License applicant's responsibility.~~
General	Appendix C	N/A	Section 14.2 describes the AP1000 plant initial test program. Section 14.4 describes the responsibilities required to perform the AP1000 plant initial test program.~~Not applicable to AP1000 design certification. This is the Combined License applicant's responsibility.~~

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.78 as follows:

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

C.1	N/A	This criterion is site-specific. ~~Therefore, this~~ It is not applicable to AP1000 design certification. Subsection 2.2.1 defines the responsibility for addressing site-specific information on identification of site-specific potential hazards. ~~Therefore, this is not applicable to AP1000 design certification. It is the Combined License applicant's responsibility.~~
C.2	N/A	This criterion is site-specific. Therefore, this is not applicable to AP1000 design certification. Subsection 2.1.1 defines the responsibility for addressing site-specific information on identification of site-specific potential hazards. Subsection 6.4.7 defines the responsibility for addressing site-specific information amount and location of possible sources of toxic chemicals in or near the plant relative to control room habitability. ~~It is the Combined License applicant's responsibility.~~
C.3.1	N/A	This criterion is site-specific. ~~Therefore, this~~ It is not applicable to AP1000 design certification. Subsection 2.2.1 defines the responsibility for addressing site-specific information on identification of site-specific potential

		hazards. Subsection 6.4.7 defines the responsibility for addressing site-specific information amount and location of possible sources of toxic chemicals in or near the plant relative to control room habitability. ~~It is the Combined License applicant's responsibility.~~
C.3.2	Conforms	
C.3.3	Exception	For AP1000 design certification, the atmospheric dispersion factors are not calculated (since there are no specific site data), but are selected so as to bound the majority of existing sites. Section 2.3 provides additional information.
C.3.4	Conforms	
C.4.1	N/A	This criterion is site-specific. ~~Therefore, this~~ It is not applicable to AP1000 design certification. Subsection 2.2.1 defines the responsibility for addressing site-specific information on identification of site-specific potential hazards. Subsection 6.4.7 defines the responsibility for addressing site-specific information amount and location of possible sources of toxic chemicals in or near the plant relative to control room habitability. ~~It is the Combined License applicant's responsibility.~~
C.4.2	Conforms	
C.4.3	Conforms	
C.5	N/A	Not applicable to AP1000 design certification. Subsection 2.1.1 defines the responsibility for addressing site-specific information on identification of site location and description, exclusion area authority and control, and population distribution. Subsection 2.2.1 defines the responsibility for addressing site-specific information on identification of site-specific potential hazards. DCD Section 13.3 defines the responsibility for addressing emergency planning. ~~This is the Combined License applicant's responsibility.~~

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.81 as follows:

Reg. Guide 1.81, Rev. 1, 1/75 – Shared Emergency and Shutdown Electric Systems for Multi-Unit Nuclear Power Plant

General	N/A	The AP1000 is a single unit plant. ~~Therefore, this is not applicable to the AP1000.~~ When two or more AP1000s are located adjacent, electrical systems are not shared.

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.85, General criteria as follows:

Reg. Guide 1.85, Rev. 31, 5/99 – Materials Code Case Acceptability - ASME Code, Section III, Division 1

General	Conforms	Refer to the discussion on Regulatory Guide 1.84. Subsequent to Revision 31 Reg. Guide 1.85 was combined with Reg. Guide 1.84. The guidance and conditions included in the previous revisions of Reg. Guide 1.85 remains valid.

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.86 as follows:

Reg. Guide 1.86, Rev. 0, 6/74 – Termination of Operating Licenses for Nuclear Reactors

General	N/A	Not applicable to AP1000 design certification. Section 1.9.1.5 defines the responsibility for Regulatory Guides not applicable to Design Certification. ~~This is the Combined License applicant's responsibility.~~

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.91 as follows:

Reg. Guide 1.91, Rev. 1, 2/78 – Evaluation of Explosions Postulated to Occur on Transportation Routes Near Nuclear Power Plant Sites

General	~~N/A~~Conforms	Onsite explosive materials conform to these guidelines. Offsite explosive materials are site-specific ~~and are the Combined License applicant's responsibility~~. See subsection 2.2.1 for ~~Combined License~~ information for identification of site-specific potential hazards. See subsection 19.58 for site-specific hazards evaluation.

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.94 as follows:

Reg. 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

General	ANSI N45.2.5-1974	N/A	Not applicable to AP1000 design certification. ~~This is the responsibility of the Combined License applicant. See~~ Section 17.5 ~~for the Combined License information item~~defines the responsibility for the quality assurance program.

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.101 as follows:

Reg. Guide 1.101, Rev. 3, 8/92 – Emergency Planning and Preparedness for Nuclear Power Reactors

General	NUREG-0654, FEMA-REP-1 NUMARC/NESP-007	Conforms	~~Emergency planning is the responsibility of the Combined License applicant. See~~ DCD Section 13.3 defines the responsibility for addressing ~~for the Combined License information on~~ emergency planning. RG 1.101 (Revision 2) references NUREG-0654/ FEMA-REP-1 and item II.H, "Emergency Facilities and Equipment" of NUREG-0654/FEMA-REP-1 is applicable to the technical support center (TSC), operations support center (OSC), and the emergency operations facility (EOF) in the AP1000 design. ~~Designing the EOF, including specification of its locationin accordance with the AP1000 human factors engineering program is the responsibility of the Combined License applicant. See~~ Subsection 18.2.6 defines the responsibility for ~~the Combined License information on~~ designing the EOF in accordance with the AP1000 human factors engineering program, including specification of its location. The AP1000 design conforms with the design criteria of item II.H that pertain to the TSC and the OSC.

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.111 as follows:

Reg. 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	N/A	Not applicable to AP1000 design certification. This is applicable to the evaluation of specific sites. ~~Interface data are provided. This is the Combined License applicant's responsibility.~~Subsection 1.9.1.5 defines the responsibility for Regulatory Guides not applicable to design certification.

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.113 as follows:

Reg. 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	N/A	Not applicable to AP1000 design certification. This is applicable to the evaluation of specific sites. Interface data are provided. ~~This is the Combined License applicant's responsibility~~Subsection 1.9.1.5 defines the responsibility for Regulatory Guides not applicable to design certification.

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.114 as follows:

Reg. 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	N/A	Not applicable to AP1000 design certification. ~~This is the Combined License applicant's responsibility. See~~ Section 13.2 defines the responsibility for ~~the Combined License information item on~~ training and Section 13.5 defines the responsibility for ~~the Combined License information item on~~ procedures.

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.116 as follows:

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

General	ANSI N45.2.8-1975	N/A	Not applicable to AP1000 design certification. ~~This is the Combined License applicant's responsibility. See~~ Section 17.5 defines the responsibility for the Quality Assurance Program ~~Combined License information item.~~

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.127 as follows:

Reg. Guide 1.127, Rev. 1, 3/78 – Inspection of Water-Control Structures Associated With Nuclear Power Plants

General	N/A	The AP1000 does not have water-control structures. Therefore, this guideline is not applicable to the AP1000. ~~See~~ Subsection 2.5.6 defines the responsibility ~~for the Combined License information item~~ for embankments and dams.

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.129 as follows:

Reg. Guide 1.129, Rev. 1, 2/78 – Maintenance, Testing, and Replacement of Large Lead Storage Batteries for Nuclear Power Plants

General	IEEE Std. 450-1975	N/A	Not applicable to AP1000 design certification. Subsection 8.3 defines the responsibility for battery testing. ~~This is the Combined License applicant's responsibility~~.

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.132 as follows:

Reg. Guide 1.132, Rev. 1, 3/79 – Site Investigations for Foundations of Nuclear Power Plants

General	N/A	Not applicable to AP1000 design certification. ~~This is the Combined License applicant's responsibility. The AP1000 requirements~~ Subsection 2.5 defines the responsibility for site investigations and the site specific information related to basic geological, seismological, and geotechnical engineering of the site.~~are outlined in Section 2.5.~~

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.133, Criteria C.3.a and C.6 as follows:

C.3.a	N/A	Not applicable to AP1000 design certification. Section 13.5 defined the responsibility for development of procedures. ~~This is the Combined License applicant's responsibility.~~
C.6	N/A	Not applicable to AP1000 design certification. Reporting Requirements associated with the technical specification are identified in Tech. Spec. Section 5.6. DCD Subsection 1.1.1 defines the responsibility to finalize the technical specification. ~~This is the Combined License applicant's responsibility.~~

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.134 as follows:

Reg. Guide 1.134, Rev. 3, 3/98 – Medical Evaluation of Nuclear Power Plant Personnel Requiring Operator Licenses

General	N/A	Not applicable to AP1000 plant design certification. ~~This is the Combined License applicant's responsibility. See~~ DCD

			Section 13.5 defines the responsibility ~~for the Combined License information item~~ for administrative procedures.

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.138 as follows:

Reg. Guide 1.138, Rev. 0, 4/78 – Laboratory Investigations of Soils for Engineering Analysis and Design of Nuclear Power Plants

General		N/A	Not applicable to AP1000 design certification. Subsection 2.5.4.6.2 defines the responsibility to establish the properties of the foundation soils including laboratory investigations of underlying materials. ~~This is the Combined License applicant's responsibility.~~

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.139, Criterion C.7 as follows:

C.7	Regulatory Guide 1.33	N/A	Not applicable to AP1000 design certification. ~~This is the Combined License applicant's responsibility~~Section 17.5 defines the responsibility for the quality assurance program.

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.145 as follows:

Reg. Guide 1.145, Rev. 1, 11/82 – Atmospheric Dispersion Models for Potential Accident Consequence Assessments at Nuclear Power Plants

General		N/A	Not applicable to AP1000 design certification. The atmospheric dispersion factors for use in determining potential accident consequences are selected to be representative of existing nuclear power plant sites and to bound the majority of them. Chapter 2 provides the interface criteria. T~~herefore, this regulatory guide is not applicable to AP1000 design certification.~~

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.149 as follows:

Reg. Guide 1.149, Rev. 2, 4/96 – Nuclear Power Plant Simulation Facilities for Use in Operator License Examinations

General		N/A	Not applicable to AP1000 design certification. Subsection 13.2.1 defines the responsibility to develop and implement training programs for plant personnel. These training programs will address the scope of licensing examinations ~~This is the Combined License applicant's responsibility.~~

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.154 as follows:

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

General	N/A	~~Not applicable to AP1000 design certification. This is the Combined License applicant's responsibility.~~ See Section 5.3 for additional information on pressurized thermal shock. Subsection 5.3.6 defines the responsibility to document reactor vessel materials and material evaluation.

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.159 as follows:

Reg. Guide 1.159, Rev. 0, 8/90 – Assuring the Availability of Funds for Decommissioning Nuclear Reactors

General	N/A	Not applicable to AP1000 design certification. Section 1.9.1.5 defines the responsibility for Regulatory Guides not applicable to Design Certification. ~~This is the Combined License applicant's responsibility.~~

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.160 as follows:

Reg. Guide 1.160, Rev. 2, 3/97 – Monitoring the Effectiveness of Maintenance at Nuclear Power Plants

General	N/A	Not applicable to AP1000 design certification. Subsection 17.5 defines the responsibility for a Plant Maintenance Program. ~~This is the Combined License applicant's responsibility.~~

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.161 as follows:

Reg. Guide 1.161, Rev. 0, 6/95 – Evaluation of Reactor Pressure Vessels with Charpy Upper-Shelf Energy Less Than 50 Ft-Lb

General	N/A	~~Not applicable to AP1000 design certification. This is the Combined License applicant's responsibility.~~ The design and material specification for the reactor vessel do not permit a Charpy value less than 50 ft.-lb. Subsection 5.3.6.4 defines the responsibility for reactor vessel materials properties verification.

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.162 as follows:

Reg. Guide 1.162, Rev. 0, 2/96 – Format and Content of Report for Thermal Annealing of Reactor Pressure Vessels

General	N/A	Not applicable to AP1000 design certification. Section 1.9.1.5 defines the responsibility for Regulatory Guides not applicable to Design Certification. ~~This is the Combined License applicant's responsibility.~~

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.165 as follows:

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

General	N/A	~~Not applicable to AP1000 design certification.~~ Subsection 2.5.2.1 defines the responsibility to address site-specific information related to the vibratory ground motion aspects. ~~This is the Combined License applicant's responsibility.~~

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.166 as follows:

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

General	N/A	Not applicable to AP1000 design certification. Section 13.5.1 defines the responsibility for the plant procedure preparation. ~~This is the Combined License applicant's responsibility.~~

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.167 as follows:

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

General	N/A	Not applicable to AP1000 design certification. Section 13.5.1 defines the responsibility for the plant procedure preparation. ~~This is the Combined License applicant's responsibility.~~

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.168 as follows:

Reg. Guide 1.168, Rev. 0, 9/97 – Verification, Validation, Reviews, and Audits for Digital Computer Software Used in Safety Systems of Nuclear Power Plants

General	~~N/A~~Conforms	~~Not applicable to AP1000 design certification. Digital computer software is not finalized for design certification.~~

		See Chapter 7 for a discussion of the instrumentation and control software program. ~~methodology used.~~

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.169 as follows:

Reg. Guide 1.169, Rev. 0, 9/97 – Configuration Management Plans for Digital Computer Software Used in Safety Systems of Nuclear Power Plants

General	~~N/A~~Conforms	~~Not applicable to AP1000 design certification. Digital computer software is not finalized for design certification.~~ See Chapter 7 for a discussion of the instrumentation and control software program. ~~methodology used.~~

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.170 as follows:

Reg. Guide 1.170, Rev. 0, 9/97 – Software Test Documentation for Digital Computer Software Used in Safety Systems of Nuclear Power Plants

General	~~N/A~~Conforms	~~Not applicable to AP1000 design certification. Digital computer software is not finalized for design certification.~~ See Chapter 7 for a discussion of the instrumentation and control software program. ~~methodology used.~~

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.171 as follows:

Reg. Guide 1.171, Rev. 0, 9/97 – Software Unit Testing for Digital Computer Software Used in Safety Systems of Nuclear Power Plants

General	~~N/A~~Conforms	~~Not applicable to AP1000 design certification. Digital computer software is not finalized for design certification.~~ See Chapter 7 for a discussion of the instrumentation and control software program. ~~methodology used.~~

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.172 as follows:

Reg. Guide 1.172, Rev. 0, 9/97 – Software Requirements Specifications for Digital Computer Software Used in Safety Systems of Nuclear Power Plants

General	~~N/A~~Conforms	~~Not applicable to AP1000 design certification. Digital computer software is not finalized for design certification.~~ See Chapter 7 for a discussion of the instrumentation and control software program. ~~methodology used.~~

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.173 as follows:

Reg. Guide 1.173, Rev. 0, 9/97 – Developing Software Life Cycle Processes for Digital Computer Software Used in Safety Systems of Nuclear Power Plants

General	N/A	~~Not applicable to~~ AP1000 design certification does not include final~~.~~ ~~D~~digital computer software. ~~is not finalized for design certification.~~ See Chapter 7 for a discussion of the instrumentation and control design acceptance criteria ~~methodology used.~~

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.174 as follows:

Reg. Guide 1.174, Rev. 0, 7/98 – An Approach for using Probabilistic Risk Assessment in Risk-Informed Decisions on Plant-Specific Changes to the Licensing Basis

General	N/A	Not applicable to AP1000 design certification. The AP 1000 is a standardized design. Section 1.9.1.5 defines the responsibility for Regulatory Guides not applicable to Design Certification. ~~This is the Combined License applicant's responsibility.~~

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.175 as follows:

Reg. Guide 1.175, Rev. 0, 7/98 – An Approach for Plant-Specific, Risk-Informed Decisionmaking: Inservice Testing

General	N/A	Not applicable to AP1000 design certification. The AP 1000 is a standardized design. Inservice testing of ASME Section III components is discussed in Subsection 3.9.6. ~~This is the Combined License applicant's responsibility.~~

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.176 as follows:

Reg. Guide 1.176, Rev. 0, 8/98 – An Approach for Plant-Specific, Risk-Informed Decisionmaking: Graded Quality Assurance

General	N/A	Not applicable to AP1000 design certification. The AP 1000 is a standardized design. Quality assurance is discussed in Chapter 17. ~~This is the Combined License applicant's responsibility.~~

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.177 as follows:

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

General	N/A	Not applicable to AP1000 design certification. The AP 1000 is a standardized design. The standard AP1000 Technical Specification is provided in DCD Chapter 16. ~~This is the Combined License applicant's responsibility.~~

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.178 as follows:

Reg. Guide 1.178, Rev. 0, 9/98 – An Approach for Plant-Specific Risk-informed Decisionmaking Inservice Inspection of Piping

General	N/A	Not applicable to AP1000 design certification. The AP 1000 is a standardized design. Inservice inspection is discussed in DCD Subsection 5.2.4 and Section 6.6. ~~This is the Combined License applicant's responsibility.~~

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.179 as follows:

Reg. Guide 1.179, Rev. 0, 9/99 – Standard Format and Content of License Termination Plans for Nuclear Power Reactors

General	N/A	Not applicable to AP1000 design certification. The AP 1000 is a standardized design. Subsection 1.9.1.5 defines the responsibility for Regulatory Guides not applicable to Design Certification. ~~This is the Combined License applicant's responsibility.~~

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.180 as follows:

Reg. Guide 1.180, Rev. 0, 9/00 – Guidelines for Evaluating Electromagnetic and Radio-Frequency Interference in Safety-Related Instrumentation and Control Systems

General	~~N/A~~Conforms	~~Not applicable to AP1000 design certification. Digital computer software is not finalized for design certification. See Chapter 7 for a discussion of the methodology used..~~ See Appendix 3D for a discussion of the EMI/RFI qualification.

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.181as follows:

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

General	N/A	Not applicable to AP1000 design certification. Section 1.9.1.5 defines the responsibility for Regulatory Guides not applicable to Design Certification. ~~This is the Combined License applicant's responsibility.~~

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.182 as follows:

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

General	N/A	Not applicable to AP1000 design certification. Subsection 17.5 defines the responsibility for a Plant Maintenance Program.~~This is the Combined License applicant's responsibility.~~

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.184 as follows:

Reg. Guide 1.184, Rev. 0, 8/00 – Decommissioning of Nuclear Power Reactors

General	N/A	Not applicable to AP1000 design certification. Subsection 1.9.1.5 defines the responsibility for Regulatory Guides not applicable to Design Certification. ~~This is the Combined License applicant's responsibility.~~

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.185 as follows:

Reg. Guide 1.185, Rev. 0, 8/00 – Standard Format and Content for Post-shutdown Decommissioning Activities Report

General	N/A	Not applicable to AP1000 design certification. Subsection 1.9.1.5 defines the responsibility for Regulatory Guides not applicable to Design Certification. ~~This is the Combined License applicant's responsibility.~~

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.186 as follows:

Reg. Guide 1.186, Rev. 0, 12/00 – Guidance and Examples of Identifying 10 CFR 50.2 Design Bases

General	N/A	Not applicable to AP1000 design certification. Subsection 1.9.1.5 defines the responsibility for Regulatory Guides not applicable to Design Certification. ~~This is the Combined License applicant's responsibility.~~

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.187 as follows:

Reg. Guide 1.187, Rev. 0, 11/00 – Guidance for Implementation of 10 CFR 50.59, Changes, Tests, and Experiments

General	N/A	Not applicable to AP1000 design certification. Subsection 1.9.1.5 defines the responsibility for Regulatory Guides not applicable to Design Certification. ~~This is the Combined License applicant's responsibility.~~

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.189 as follows:

Reg. Guide 1.189, Rev. 0, 4/01 – Fire Protection for Operating Nuclear Power Plants

General	N/A	Subsection 9.5.1 describes the AP1000 Fire Protection system. ~~Not applicable to AP1000 design certification.~~ Subsection 9.5.1.8 defines the responsibility for completing a fire protection program. ~~This is the Combined License applicant's responsibility.~~

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 1.190 as follows:

Reg. Guide 1.190, Rev. 0, 4/01 – Calculational and Dosimetry Methods for Determining Pressure Vessel Neutron Fluence

General	N/A	Subsection 5.3.2.6 describes the calculational and dosimetry methods for determining pressure vessel neutron fluence for the AP1000 ~~Not applicable to AP1000 design certification.~~ Subsection 5.3.6.4 defines the responsibility for reactor vessel materials properties verification. ~~This is the Combined License applicant's responsibility.~~

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 4.7 as follows:

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

General	N/A	Chapter 2 defines the site-related parameters for which the AP1000 plant is designed. These interface parameters envelop most potential sites in the United States. The guidelines in this regulatory guide are site-specific. Chapter 2 defines the responsibility for determining general site suitability ~~Therefore, this regulatory guide is not applicable to AP1000 design certification.~~

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 5.9 as follows:

Reg. Guide 5.9 Rev. 2, 12/83 – Specifications for Ge (Li) Spectroscopy Systems for Material Protection Measurements Part 1: Data Acquisition Systems

General	N/A	Not applicable to AP1000 design certification. Laboratory Equipment is not included in the AP1000 design. Subsection 1.9.1.5 defines the responsibility for Regulatory Guides not applicable to Design Certification.~~This is the Combined License applicant's responsibility.~~

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 5.65 as follows:

Reg. Guide 5.65, Rev. 0, 9/86 – Vital Area Access Controls, Protection of Physical Security Equipment, and Key and Lock Controls

General	Conforms	The AP1000 provides for physical protection of the vital area. Identification of the protected and vital areas and an outline of the physical protection system ~~is~~are presented in the AP1000 Security Design Report. ~~Portions of the access controls addressed by the regulatory guide are the Combined License applicant's responsibility. See subsection 13.6.13 for Combined License applicant information items.~~

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 8.2 as follows:

Reg. Guide 8.2, Rev. 0, 2/73 – Guide for Administrative Practices in Radiation Monitoring

General	N/A	Not applicable to AP1000 design certification. ~~This is the Combined License applicant's responsibility. See~~ Section 13.5 defines the responsibility for ~~the Combined License information item for~~ administrative procedures. Subsection 12.1.3 defines the responsibility for operational considerations of ALARA.

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 8.8 as follows:

Reg. 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

1	N/A	Not applicable to AP1000 design certification. Subsection 12.1.3 defines the responsibility for operational considerations of ALARA. ~~This is the Combined License~~

			~~applicant's responsibility.~~
1.a-c	Regulatory Guide 1.8	N/A	Not applicable to AP1000 design certification. Subsection 12.1.3 defines the responsibility for operational considerations of ALARA. ~~This is the Combined License applicant's responsibility.~~
1.d		Conforms	
2	ANSI N237-1976	Exception	Regulatory Guide 8.8 endorses ANSI-N237-1976 (Reference 49), which has been superseded by ANSI 18.1-1999 (Reference 50). The AP1000 uses the latest version of the industry standards (as of 4/2001). This version is not endorsed by a regulatory guide but its use should not result in deviation from the design philosophy otherwise stated in Regulatory Guide 8.8.
2.a	10 CFR 20-203	Conforms	
2.b-g		Conforms	
2.h	ANS N197 ANS 55.1 ANS N19	Conforms	ANS-55.1-1992-R2000 is Current Version
2.i		Conforms	
3		N/A	Not applicable to AP1000 design certification. Subsection 12.1.3 defines the responsibility for operational considerations of ALARA. ~~This is the Combined License applicant's responsibility.~~
4.a		Conforms	
4.b-d		N/A	Not applicable to AP1000 design certification. Subsection 12.1.3 defines the responsibility for operational considerations of ALARA. ~~This is the Combined License applicant's responsibility.~~
4.3		Conforms	

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 8.10 as follows:

Reg. Guide 8.10, Rev. 1-R, 5/77 – Operating Philosophy For Maintaining Occupational Radiation Exposures as Low as is Reasonably Achievable

General		N/A	Not applicable to AP1000 design certification. Subsection

			12.1.3 defines the responsibility for operational considerations of ALARA, ~~This is the Combined License applicant's responsibility.~~

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 8.13 as follows:

Reg. Guide 8.13, Rev. 3, 6/99 – Instruction Concerning Prenatal Radiation Exposure

General	10 CFR 19.12	N/A	Not applicable to AP1000 design certification. Subsection 12.1.3 defines the responsibility for operational considerations of ALARA, ~~This is the Combined License applicant's responsibility. See~~ Section 13.5 defines the responsibility ~~for the Combined License information item~~ for administrative procedures.

Revise the Clarification/Summary Description of Exceptions for Reg. Guide 8.15 as follows:

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

General	10 CFR 20.103	N/A	Not applicable to AP1000 design certification. Subsection 12.1.3 defines the responsibility for operational considerations of ALARA, ~~This is the Combined License applicant's responsibility.~~ See Section 12.3 for information on radiation protection design features. See Section 12.5 for information on health physics facilities. ~~See~~ Section 13.5 defines the responsibility ~~for the Combined License information item~~ for administrative procedures.

IV. REGULATORY IMPACT

A. FSER IMPACT

Since this report does not change about the design and design function of the AP1000 structures, systems, and components, there is no change to the FSER write-up and conclusions about the safety review of the AP1000 standard plant design. Write-ups of generic issues in Chapter 20 of the FSER may be impacted.

B. SCREENING QUESTIONS (Check correct response and provide justification for that determination under each response)

1. Does the proposed change involve a change to an SSC that adversely affects a DCD described design function? ☐ YES ☒ NO

The descriptions of the conformance of the AP1000 with regulatory guides and other NRC regulatory guidance are altered. The design and design functions of structures, systems, and components are not changed.

2. Does the proposed change involve a change to a procedure that adversely affects how DCD described SSC design functions are performed or controlled? ☐ YES ☒ NO

   The descriptions of the conformance of the AP1000 with regulatory guides and other NRC regulatory guidance are altered. The procedures and operation of structures, systems, and components are not changed.

3. Does the proposed activity involve revising or replacing a DCD described evaluation methodology that is used in establishing the design bases or used in the safety analyses? ☐ YES ☒ NO

   The descriptions of the conformance of the AP1000 with regulatory guides and other NRC regulatory guidance are altered. The methods used to evaluate design bases or used in the safety analyses are not altered.

4. Does the proposed activity involve a test or experiment not described in the DCD, where an SSC is utilized or controlled in a manner that is outside the reference bounds of the design for that SSC or is inconsistent with analyses or descriptions in the DCD? ☐ YES ☒ NO

   The descriptions of the conformance of the AP1000 with regulatory guides and other NRC regulatory guidance are altered. There are no changes to testing requirements to support the subject changes in descriptions. There are no changes to how SSCs are utilized or controlled due to the subject changes in the descriptions.

C. EVALUATION OF DEPARTURE FROM TIER 2 INFORMATION (Check correct response and provide justification for that determination under each response)

   10 CFR Part 52, Appendix D, Section VIII. B.5.a. provides that an applicant for a combined licensee who references the AP1000 design certification may depart from Tier 2 information, without prior NRC approval, if it does not require a license amendment under paragraph B.5.b. The questions below address the criteria of B.5.b.

1. Does the proposed departure result in more than a minimal increase in the frequency of occurrence of an accident previously evaluated in the plant-specific DCD? ☐ YES ☒ NO

   The descriptions of the conformance of the AP1000 with regulatory guides and other NRC regulatory guidance are not altered. The design and design functions of structures, systems, and components are not changed. Since there is no change to the design function or operation of structures, systems, and components there are no new accident initiators and no effect on the frequency of evaluated accidents.

Document Number: APP-GW-GLN-129 **Revision Number:** 0

Title: Changes to Conformance with Regulatory Guidance and Criteria

2. Does the proposed departure result in more than a minimal increase in the likelihood of occurrence of a malfunction of a structure, system, or component (SSC) important to safety and previously evaluated in the plant-specific DCD? ☐ YES ☒ NO

   The descriptions of the conformance of the AP1000 with regulatory guides and other NRC regulatory guidance are not altered. The design and design functions of structures, systems, and components are not changed. Since there is no change to the design function or operation of structures, systems, and components there is no effect on malfunctions of structures, systems, or components. The operating conditions for the systems and component are not altered.

3. Does the proposed departure Result in more than a minimal increase in the consequences of an accident previously evaluated in the plant-specific DCD? ☐ YES ☒ NO

   The descriptions of the conformance of the AP1000 with regulatory guides and other NRC regulatory guidance are not altered. The design and design functions of structures, systems, and components are not changed. The changes have no effect on the operation, performance, and pressure boundary integrity of structures, systems, and components. Therefore, there is no increase in the calculated release of radioactive material during postulated accident conditions.

4. Does the proposed departure result in more than a minimal increase in the consequences of a malfunction of an SSC important to safety previously evaluated in the plant-specific DCD? ☐ YES ☒ NO

   The descriptions of the conformance of the AP1000 with regulatory guides and other NRC regulatory guidance are not altered. The design and design functions of structures, systems, and components are not changed. The changes have no effect on the design functions or reliability of structures, systems, and components. Therefore, there is no increase in the calculated release of radioactive material due to a malfunction of an SSC.

5. Does the proposed departure create a possibility for an accident of a different type than any evaluated previously in the plant-specific DCD? ☐ YES ☒ NO

   The descriptions of the conformance of the AP1000 with regulatory guides and other NRC regulatory guidance are not altered. The design and design functions of structures, systems, and components are not changed. The changes have no effect on the operation, performance, and pressure boundary integrity of structures, systems, and components. The response of structures, systems, and components to postulated accident conditions is not altered by the changes. The changes do not introduce any additional failure modes to structures, systems, and components. Therefore, there is no possibility of an accident of a different type than any evaluated previously in the DCD.

6. Does the proposed departure create a possibility for a malfunction of an SSC important to safety with a different result than any evaluated previously in the plant-specific DCD? ☐ YES ☒ NO

   The descriptions of the conformance of the AP1000 with regulatory guides and other NRC regulatory guidance are not altered. The design and design functions of structures, systems, and components are not changed. The changes have no effect on the design functions of the structures, systems, and components. Therefore, there are no additional failure modes or the possibility for a malfunction of an SSC important to safety with a different result than any evaluated previously.

Document Number: APP-GW-GLN-129 **Revision Number:** 0

Title: Changes to Conformance with Regulatory Guidance and Criteria

7. Does the proposed departure result in a design basis limit for a fission product barrier as described in the plant-specific DCD being exceeded or altered? ☐ YES ☒ NO

   The descriptions of the conformance of the AP1000 with regulatory guides and other NRC regulatory guidance are not altered. There is no change to the design function of the structures, systems, and components. The design criteria for structures, systems, and components are not exceeded or altered.

8. Does the proposed departure result in a departure from a method of evaluation described in the plant-specific DCD used in establishing the design bases or in the safety analyses? ☐ YES ☒ NO

   The descriptions of the conformance of the AP1000 with regulatory guides and other NRC regulatory guidance are not altered. The design and design functions of structures, systems, and components are not changed. The methods used to evaluate structures, systems, and components and evaluate control of structures, systems, and components are not altered by the subject changes.

☒ The answers to the evaluation questions above are "NO" and the proposed departure from Tier 2 does not require prior NRC review to be included in plant specific FSARs as provided in 10 CFR Part 52, Appendix D, Section VIII. B.5.b

☐ One or more of the answers to the evaluation questions above are "YES" and the proposed change requires NRC review.

D. IMPACT ON RESOLUTION OF A SEVERE ACCIDENT ISSUE

10 CFR Part 52, Appendix D, Section VIII. B.5.a. provides that an applicant for a combined licensee who references the AP1000 design certification may depart from Tier 2 information, without prior NRC approval, if it does not require a license amendment under paragraph B.5.c. The questions below address the criteria of B.5.c.

1. Does the proposed activity result in an impact to features that mitigate severe accidents? If the answer is Yes answer Questions 2 and 3 below. ☐ YES ☒ NO

   The descriptions of the conformance of the AP1000 with regulatory guides and other NRC regulatory guidance are not altered. The design and design functions of structures, systems, and components including features that mitigate severe accidents are not changed.

2. Is there is a substantial increase in the probability of a severe accident such that a particular severe accident previously reviewed and determined to be not credible could become credible? ☐ YES ☐ NO ☒ N/A

3. Is there is a substantial increase in the consequences to the public of a particular severe accident previously reviewed? ☐ YES ☐ NO ☒ N/A

☒ The answers to the evaluation questions above are "NO" or are not applicable and the proposed departure from Tier 2 does not require prior NRC review to be included in plant specific FSARs as provided in 10 CFR Part 52, Appendix D, Section VIII. B.5.c

☐ One or more of the he answers to the evaluation questions above are "YES" and the proposed change requires NRC review.

E. SECURITY ASSESSMENT

1. Does the proposed change have an adverse impact on the security assessment of the AP1000? ☐ YES ☒ NO

The change to the descriptions of the conformance of the AP1000 with regulatory guides and other NRC regulatory guidance will not alter barriers or alarms that control access to protected areas of the plant. The change to the descriptions of the conformance of the AP1000 with regulatory guides and other NRC regulatory guidance will not alter requirements for security personnel.