



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/NRC1964

July 18, 2007

Subject: AP1000 COL Standard Technical Report Submittal of APP-GW-GLN-131 (TR 131),
Revision 0

In support of Combined License application pre-application activities, Westinghouse is submitting Revision 0 of AP1000 Standard Combined License Technical Report Number 131. This report identifies and justifies standard changes to the AP1000 Design Control Document (DCD). The changes to the DCD identified in Technical Report 131 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-131, Revision 0, "Miscellaneous AP1000 Design Changes," (Technical Report Number 131), is submitted as Enclosure 1 under the attached Oath of Affirmation.

It is expected that when the NRC review of Technical Report Number 131, Revision 0 is complete, the changes to the DCD identified in Technical Report 131 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.

D079
D063
NRC

Very truly yours,



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

/Attachment

1. "Oath of Affirmation," dated July 18, 2007

/Enclosure

1. APP-GW-GLN-131, Revision 0, "Miscellaneous AP1000 Design Changes," Technical Report Number 131

cc:	D. Jaffe	- U.S. NRC	1E	1A
	E. McKenna	- U.S. NRC	1E	1A
	S. Adams	- Westinghouse	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
	P. Greco	- Westinghouse	1E	1A

ATTACHMENT 1

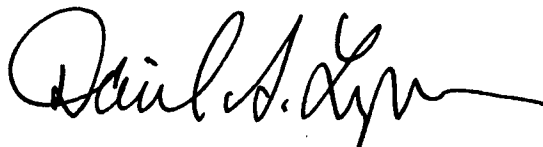
“Oath of Affirmation”

ATTACHMENT 1
UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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

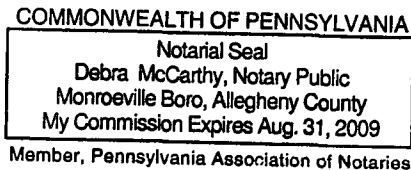
APPLICATION FOR REVIEW OF
"AP1000 GENERAL COMBINED LICENSE INFORMATION"
FOR COL APPLICATION PRE-APPLICATION REVIEW

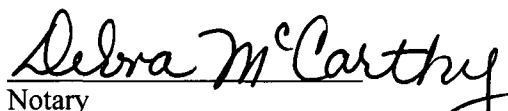
D. S. Lipman, being duly sworn, states that he is Senior Vice President, Nuclear Power Plants, for Westinghouse Electric Company; that he is authorized on the part of said company to sign and file with the Nuclear Regulatory Commission this document; that all statements made and matters set forth therein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



D. S. Lipman
Senior Vice President
Nuclear Power Plants

Subscribed and sworn to
before me this 18th day
of July 2007.




Notary

ENCLOSURE 1

APP-GW-GLN-131, Revision 0

“Miscellaneous AP1000 Design Changes”

Technical Report 131

AP1000 DOCUMENT COVER SHEET

TDC: _____ Permanent File: _____ APY: _____
RFS#: _____ RFS ITEM #: _____

AP1000 DOCUMENT NO. APP-GW-GLN-131	REVISION NO. 0	Page 1 of ¹⁵ 14 ^{PLN} 7/11/07	ASSIGNED TO W - McGinnis
---------------------------------------	-------------------	---	-----------------------------

ALTERNATE DOCUMENT NUMBER: TR 131

WORK BREAKDOWN #:

ORIGINATING ORGANIZATION: Westinghouse Electric Company

TITLE: Miscellaneous AP1000 Design Changes

ATTACHMENTS: N/A	DCP #/REV. INCORPORATED IN THIS DOCUMENT REVISION: GW-GEE-228 Rev. 0 GW-GEE-315 Rev. 0 GW-GEE-338 Rev. 3 GW-GEE-440 Rev. 3 GW-GEE-463 Rev. 2 GW-GEE-513 Rev. 0 GW-GEE-559 Rev. 1 <u>APP-GW-GEE-121 Rev. 1</u>
CALCULATION/ANALYSIS REFERENCE: N/A	

ELECTRONIC FILENAME APP-GW-GLR-131 R0	ELECTRONIC FILE FORMAT Word	ELECTRONIC FILE DESCRIPTION
--	--------------------------------	-----------------------------

(C) WESTINGHOUSE ELECTRIC COMPANY LLC – 2007

☒ 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 <i>J.C. VALENTINE</i>	SIGNATURE/DATE <i>J.C. Valentine</i> 7/13/07
PATENT REVIEW <i>M. CORLETTI</i>	SIGNATURE/DATE <i>M. Corletti</i> 7/13/07

☐ 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 P.L. Greco	SIGNATURE/DATE <i>Philip I Greco</i> 7/11/07
REVIEWERS	SIGNATURE/DATE
VERIFIER <i>S. Boyle</i>	SIGNATURE/DATE <i>S. Boyle</i> 7/11/07
AP1000 RESPONSIBLE MANAGER <i>C.A. McGinnis</i>	SIGNATURE <i>C.A. McGinnis</i>
	VERIFICATION METHOD Detailed Review
	APPROVAL DATE 7-11-07

* 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.

Westinghouse Class 3 Non Proprietary

AP1000 Standard Combined License Technical Report

Title: Miscellaneous AP1000 Design Changes

Westinghouse Electric Company LLC
P.O. Box 355
Pittsburgh, PA 15230-0355

© 2007 Westinghouse Electric Company LLC
All Rights Reserved

WESTINGHOUSE ELECTRIC COMPANY
AP1000 Licensing Design Change Document

Page 3 of 15

Document Number: APP-GW-GLN-131

Revision Number: 0

Title: Miscellaneous AP1000 Design Changes

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

Technical Report 131 addresses a few miscellaneous design changes made to AP1000 that are incorporated into Revision 16 of the Design Control Document.

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	<input type="checkbox"/> NO <input checked="" type="checkbox"/> 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	<input checked="" type="checkbox"/> NO <input type="checkbox"/> 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	<input checked="" type="checkbox"/> NO <input type="checkbox"/> 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	<input checked="" type="checkbox"/> NO <input type="checkbox"/> 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	<input checked="" type="checkbox"/> NO <input type="checkbox"/> 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

Document Number: APP-GW-GLN-131 **Revision Number:** 0

Title: Miscellaneous AP1000 Design Changes

II. TECHNICAL DESCRIPTION AND JUSTIFICATION

A few miscellaneous design changes were made to the AP1000. This technical report will add these differences to the AP1000 DCD to make it consistent with the current design.

Change 1: WGS Simplified Sketch Corrections

The current version of the Gaseous Radwaste System (WGS) simplified sketch shown in the DCD does not accurately depict the current status of the WGS design. The sketch will be updated to reflect the current AP1000 WGS design by correcting the valve type for the discharge valve and the moisture separator drain valve.

Change 2: Removal of the Pressurizer Vapor Sample Line from the RCS

Conversations with utilities have confirmed that this sampling line is rarely if ever used. It was not on the normal sampling schedule and has been removed.

Change 3: Move VES Refill Line from VES to CAS

This change was made to allow the refill line to be non-safety-related.

Change 4: Addition of New Containment Electrical Penetration Test Valve to Table 3.2-3

This change was made by the report APP-GW-GLN-022 (TR 097), however the table 3.2-3 markup for this change is included in this report.

Change 5: Change in Tier 2 Section 6.5.2.1.1 to correctly describe procedure

Procedure currently states the following "Containment spray is initiated by first closing the passive containment cooling water system fire header isolation valve (PCS-V005) isolating the primary fire water tank, ..." the isolated tank is actually the Passive Containment Cooling Water Storage Tank as shown in the markup.

Change 6: Addition of sprinklers that exist in the diesel driven fire pump enclosure

The current design has sprinklers in the diesel driven fire pump package. The figure included in this TR shows these sprinklers.

Change 7: Correction to Sheet 3 of Figure 9.5.1-1

The current figure is incorrect in the following ways:

- Valve V102 is incorrectly labeled, it should be valve V700
- Flag coming from "FPS TANK" is changed to show its correct origin

Please note that the following pages listed in the Tier 2 Revision 16 Roadmap are referenced to other Technical Reports for their explanation. For pages 3.2-35 to 38 please see APP-GW-GLN-123 (123). For page 3.2-69 please reference APP-GW-GLN-019 (103).

WESTINGHOUSE ELECTRIC COMPANY
AP1000 Licensing Design Change Document

Page 5 of 15

Document Number: APP-GW-GLN-131 Revision Number: 0

Title: Miscellaneous AP1000 Design Changes

III. DCD MARK-UP

Tier 1

1. Figure 2.3.11-1

Tier 2

1. Table 3.2-3 (Sheet 24 of 65)
2. Table 3.2-3 (Sheet 56 of 65)
3. Table 3.2-3 (Sheet 61 of 65)
4. Section 6.5.2.1.1
5. Figure 9.5.1-1 (Sheet 1 of 3)
6. Figure 9.5.1-1 (Sheet 3 of 3)

Document Number: APP-GW-GLN-131

Revision Number: 0

Title: Miscellaneous AP1000 Design Changes

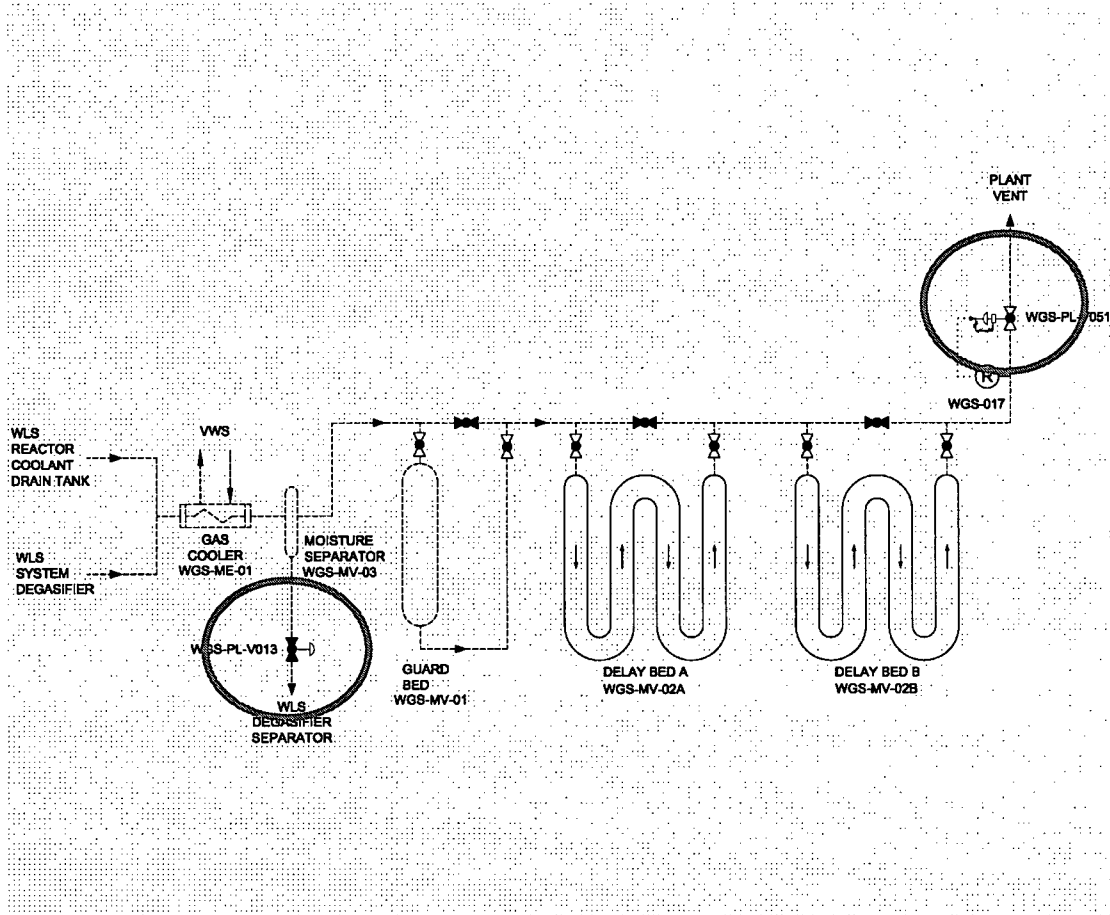


Figure
2.3.11-1
Gaseous Radwaste System

WESTINGHOUSE ELECTRIC COMPANY
AP1000 Licensing Design Change Document

Page 7 of 15

Document Number: APP-GW-GLN-131

Revision Number: 0

Title: Miscellaneous AP1000 Design Changes

TABLE 3.2-3 (SHEET 24 OF 65)

**AP1000 CLASSIFICATION OF MECHANICAL AND
FLUID SYSTEMS, COMPONENTS, AND EQUIPMENT**

Tag Number	Description	AP1000 Class	Seismic Category	Principal Construction Code	Comments
Reactor Coolant System (Continued)					
RCS-PL-V203	Pressurizer Steam Space Sample Isolation	B	I	ASME III-2	
RCS-PL-V204	Pressurizer Manual Vent	A	I	ASME III-1	
RCS-PL-V205	Pressurizer Manual Vent	A	I	ASME III-1	
RCS-PL-V210A	Pressurizer Spray Bypass	B	I	ASME III-2	
RCS-PL-V210B	Pressurizer Spray Bypass	B	I	ASME III-2	
RCS-PL-V225A	Pressurizer Level Steam Space Instrument Root	B	I	ASME III-2	
RCS-PL-V225B	Pressurizer Level Steam Space Instrument Root	B	I	ASME III-2	
RCS-PL-V225C	Pressurizer Level Steam Space Instrument Root	B	I	ASME III-2	
RCS-PL-V225D	Pressurizer Level Steam Space Instrument Root	B	I	ASME III-2	
RCS-PL-V226A	Pressurizer Level Liquid Space Instrument Root	B	I	ASME III-2	
RCS-PL-V226B	Pressurizer Level Liquid Space Instrument Root	B	I	ASME III-2	
RCS-PL-V226C	Pressurizer Level Liquid Space Instrument Root	B	I	ASME III-2	
RCS-PL-V226D	Pressurizer Level Liquid Space Instrument Root	B	I	ASME III-2	
RCS-PL-V228	Wide Range Pressurizer Level Steam Space Instrument Root	B	I	ASME III-2	
RCS-PL-V229	Wide Range Pressurizer Level Liquid Space Instrument Root	B	I	ASME III-2	
RCS-PL-V232	Manual Head Vent	C	I	ASME III-3	
RCS-PL-V233	Head Vent Isolation	C	I	ASME III-3	
RCS-PL-V241	ADS Valve Discharge Header Drain Isolation	C	I	ASME III-3	
RCS-PL-V242	ADS Valve Discharge Header Drain Check	D	NS	ANSI 16.34	

WESTINGHOUSE ELECTRIC COMPANY
AP1000 Licensing Design Change Document

Page 8 of 15

Document Number: APP-GW-GLN-131

Revision Number: 0

Title: Miscellaneous AP1000 Design Changes

TABLE 3.2-3 (SHEET 56 OF 65)

**AP1000 CLASSIFICATION OF MECHANICAL AND
FLUID SYSTEMS, COMPONENTS, AND EQUIPMENT**

Tag Number	Description	AP1000 Class	Seismic Category	Principal Construction Code	Comments
Main Control Room Emergency Habitability System (Continued)					
VES-PL-V002A	Pressure Regulating Valve A	C	I	ASME III-3	
VES-PL-V002B	Pressure Regulating Valve B	C	I	ASME III-3	
VES-PL-V005A	Air Delivery Main Isolation Valve A	C	I	ASME III-3	
VES-PL-V005B	Air Delivery Main Isolation Valve B	C	I	ASME III-3	
VES-PL-V006A	Air Delivery Line Pressure Instrument Isolation Valve A	C	I	ASME III-3	
VES-PL-V006B	Air Delivery Line Pressure Instrument Isolation Valve B	C	I	ASME III-3	
VES-PL-V008A	Refill Check Valve A	C	I	ASME III-3	
VES-PL-V008B	Refill Check Valve B	C	I	ASME III-3	
VES-PL-V016	Temporary Instrument Isolation Valve A	C	I	ASME III-3	
VES-PL-V018	Temporary Instrument Isolation Valve A	C	I	ASME III-3	
VES-PL-V019	Temporary Instrument Isolation Valve B	C	I	ASME III-3	
VES-PL-V020	Temporary Instrument Isolation Valve B	C	I	ASME III-3	
VES-PL-V022A	Pressure Relief Isolation Valve A	C	I	ASME III-3	
VES-PL-V022B	Pressure Relief Isolation Valve B	C	I	ASME III-3	
VES-PL-V024A	Air Tank Isolation Valve A	C	I	ASME III-3	
VES-PL-V024B	Air Tank Isolation Valve B	C	I	ASME III-3	
VES-PL-V025A	Air Tank Isolation Valve A	C	I	ASME III-3	
VES-PL-V025B	Air Tank Isolation Valve B	C	I	ASME III-3	
VES-PL-V038	Makeup Air Stop Valve	C	I	ASME III-3	
VES-PL-V040A	Air Tank Safety Relief Valve A	C	I	ASME III-3	
VES-PL-V040B	Air Tank Safety Relief Valve B	C	I	ASME III-3	

WESTINGHOUSE ELECTRIC COMPANY
AP1000 Licensing Design Change Document

Page 9 of 15

Document Number: APP-GW-GLN-131

Revision Number: 0

Title: Miscellaneous AP1000 Design Changes

TABLE 3.2-3 (SHEET 61 OF 65)

**AP1000 CLASSIFICATION OF MECHANICAL AND
FLUID SYSTEMS, COMPONENTS, AND EQUIPMENT**

Tag Number	Description	AP1000 Class	Seismic Category	Principal Construction Code	Comments
Containment Leak Rate Test System (Continued)					
VUS-PL-V116	Electrical Penetration Test Isolation Valve	B	I	ASME III-2	
VUS-PL-V117	Electrical Penetration Test Isolation Valve	B	I	ASME III-2	
VUS-PL-V118	Electrical Penetration Test Isolation Valve	B	I	ASME III-2	
VUS-PL-V119	Electrical Penetration Test Isolation Valve	B	I	ASME III-2	
VUS-PL-V120	Electrical Penetration Test Isolation Valve	B	I	ASME III-2	
VUS-PL-V121	Electrical Penetration Test Isolation Valve	B	I	ASME III-2	
VUS-PL-V122	Electrical Penetration Test Isolation Valve	B	I	ASME III-2	
VUS-PL-V123	Electrical Penetration Test Isolation Valve	B	I	ASME III-2	
VUS-PL-V124	Electrical Penetration Test Isolation Valve	B	I	ASME III-2	
VUS-PL-V125	Electrical Penetration Test Isolation Valve	B	I	ASME III-2	
VUS-PL-V140	Spare Penetration Test Connection	B	I	ASME III-2	
VUS-PL-V141	Spare Penetration Test Connection	B	I	ASME III-2	
VUS-PL-V142	Spare Penetration Test Connection	B	I	ASME III-2	
Balance of system components are Class E					
Central Chilled Water System (VWS)				Location: Various	
n/a	Air Cooled Chiller	D	NS	Manufacturer Std.	
n/a	Pumps	D	NS	Manufacturer Std.	
n/a	Tanks	D	NS	ASME VIII	
n/a	Valves Providing VWS AP1000 Equipment Class D Function	D	NS	ANSI 16.34	

Document Number: APP-GW-GLN-131

Revision Number: 0

Title: Miscellaneous AP1000 Design Changes

6.5.2.1.1 Valves

The containment spray flow path from the fire main header contains one normally open manual valve (FPS-V048), one normally closed manual valve (FPS-V101), one lock closed manual containment isolation valve outside containment (FPS-V050), a containment isolation check valve inside containment (FPS-V052), a normally open manual isolation valve in the spray riser (FPS-V700), and a normally closed remotely-operated valve (FPS-V701) downstream of the manual isolation valve in the spray riser.

Containment spray is initiated by first closing the passive containment cooling water system fire header isolation valve (PCS-V005) isolating the passive containment cooling primary fire water storage tank, opening the manual valves outside containment, and by opening the remotely-operated valve inside containment. The manual valves outside containment are located in valve / piping penetration room 12306. The valves are located close to the entrance door such that radiation exposures to an individual required to enter the room and align the valves would not exceed the prescribed post-accident dose limits discussed in subsection 12.4.1.8.

Valve FPS-V701 is a fail-open air-operated valve such that the containment spray flow path can be opened following a loss of the nonsafety-related compressed air system. During shutdown operations, the fire protection system header inside containment is pressurized from the passive containment cooling water storage tank for fire protection and manual isolation valve FPS-V700 is closed.

6.5.2.1.2 Containment Spray Header and Nozzles

The containment spray header consists of a single header that feeds two ring headers located above the containment polar crane. The containment spray ring headers and spray nozzles are oriented to maximize containment volume coverage. A lower ring header is located at plant elevation 260 feet, and contains 44 spray nozzles. An upper ring header is located at plant elevation 275 feet, and contains 24 spray nozzles.

The nozzles within the spray ring header are conventional containment spray nozzles utilized in past Westinghouse pressurized water reactors. The spray nozzles are selected on the basis of drop size to provide adequate absorption of fission products from the containment atmosphere.

6.5.2.1.3 Applicable Codes and Classifications

The containment spray function is not safety-related, and therefore the valves and piping in the containment spray flow path are not required to be safety-related for the containment spray function. However, the containment isolation piping and valves are safety-related (AP1000 Equipment Class B) to perform the safety-related function of containment isolation. The classification of the remaining portions of the fire header are nonsafety-related, and are classified as Class F as discussed in subsections 3.2.2.7 and 9.5.1. The containment spray header and valve, downstream of the manual isolation valve inside containment is nonsafety-related and classified as Class E. The containment spray header is classified as Seismic category II.

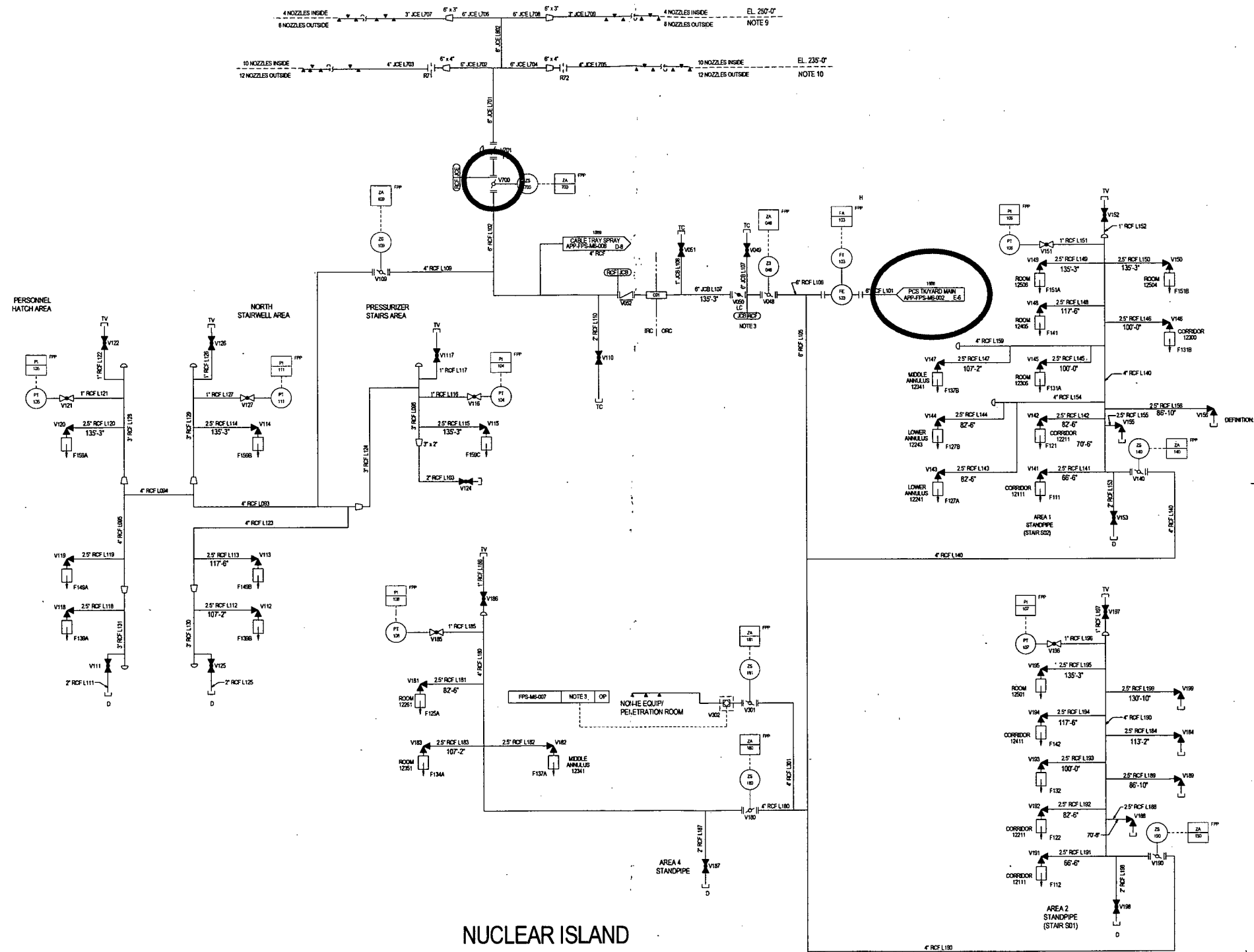


Figure 9.5.1-1 (Sheet 3 of 3)

Fire Protection System
Piping and Instrumentation Diagram
(REF FPS 004)

WESTINGHOUSE ELECTRIC COMPANY
AP1000 Licensing Design Change Document

Page 13 of 15

Document Number: APP-GW-GLN-131

Revision Number: 0

Title: Miscellaneous AP1000 Design Changes

IV. REGULATORY IMPACT

A. FSER IMPACT

These changes have no impact on the text or conclusions of the AP1000 FSER.

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 ☐ YES ☒ NO described design function?

The proposed changes do not involve a change to an SSC that adversely affects a DCD described design function.

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

The proposed changes do not involve a change to a procedure that adversely affects how DCD described SSC design functions are performed or controlled.

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

The proposed changes do not involve revising or replacing a DCD described evaluation methodology that is used in establishing the design bases or used in the safety analyses.

4. Does the proposed activity involve a test or experiment not described in the DCD, ☐ YES ☒ NO 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?

The proposed changes do not involve a test or experiment not described in the DCD.

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 ☐ YES ☒ NO occurrence of an accident previously evaluated in the plant-specific DCD?

The changes described will not increase the frequency of occurrence of an accident because there is no

WESTINGHOUSE ELECTRIC COMPANY
AP1000 Licensing Design Change Document

Page 14 of 15

Document Number: APP-GW-GLN-131

Revision Number: 0

Title: Miscellaneous AP1000 Design Changes

significant increase in the probability of failure of the safety functions due to the changes.

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

There are no changes which will cause an increase in the probability of an occurrence of a malfunction of any SSC important to the safety and previously evaluated in the plant specific DCD.

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 changes have no effect on the operation, performance, and pressure boundary integrity of the containment vessel. 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 changes have no effect on the design functions or reliability of an SSC. 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 changes have no effect on the operation, performance and pressure boundary integrity of the containment vessel. The changes do not introduce any additional failure modes. Therefore, these changes will not result in an accident of a type different than what has already been evaluated 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 changes have no effect on the design functions of an SSC. Therefore, there are no additional failure modes or the possibility for a malfunction of an SSC important to safety with a different result than evaluated previously.

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

There is no change to the design function of an SSC. Therefore, the proposed departure result does not result in a design basis limit for a fission product barrier as described in the plant-specific DCD being exceeded.

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

WESTINGHOUSE ELECTRIC COMPANY
AP1000 Licensing Design Change Document

Page 15 of 15

Document Number: APP-GW-GLN-131

Revision Number: 0

Title: Miscellaneous AP1000 Design Changes

The methods of evaluation for the SSCs described in the plant-specific DCD are not altered by the proposed departure.

- ☒ 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 ☐ YES ☒ NO the answer is Yes answer Questions 2 and 3 below.
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 design changes will not alter barriers or alarms that control access to protected areas of the plant. The changes will not alter requirements for security personnel.