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August 18, 2009

Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Attention: Mr. Jeffrey A. Ciocco

Docket No. 52-021
MHI Ref: UAP-HF-09420

Subject: The Plan of US-APWR Design Control Document Revision 2

References: 1) Letter MHI Ref: UAP-HF-08153 from Y. Ogata (MHI) to U.S. NRC, "Submittal of US-APWR Design Control Document Revision 1 in Support of Mitsubishi Heavy Industries, Ltd.'s Application for Design Certification of the US-APWR Standard Plant Design" dated on August 29, 2008.

At the Nuclear Regulatory Commission ("NRC") public meeting on July 16, 2009, Mitsubishi Heavy Industries, Ltd. ("MHI") presented the plan of US-APWR Design Control Document ("DCD") Revision 2. MHI wishes to express its appreciation to the Staff for this meeting which will be very useful for understanding the contents of revision 2.

With Enclosure 1 of this letter, MHI formally transmits to the NRC Staff MHI's plan to revise the US-APWR DCD in October 2009. The revisions do not involve any changes to the safety analysis or assumptions and are considered to be insignificant. Therefore, the revisions should not impact the NRC's review schedule of the DCD.

Enclosure 2 provides the matrix which shows the changes and the affected Sections. This matrix will help the NRC reviewer to easily find the Sections affected by the revision items in DCD Revision 2.

Enclosure 3 lists the technical reports to be revised and submitted to the NRC associated with the DCD Revision 2.

Please contact Dr. C. Keith Paulson, Senior Technical Manager, Mitsubishi Nuclear Energy Systems, Inc. if the NRC has questions concerning any aspect of this letter. His contact information is provided below.

Sincerely,

Y. Ogata

Yoshiki Ogata,
General Manager- APWR Promoting Department
Mitsubishi Heavy Industries, LTD.

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Enclosures:

1. "Revision Plan of the US-APWR DCD"

2. "Relation Matrix between the Changes and Affected Sections on the US-APWR DCD Revision 2"

3. "US-APWR Topical/Technical Report Revision Plan"

CC: J. A. Ciocco
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Enclosure 1

Revision Plan of the US-APWR DCD

August 2009

1. INTRODUCTION

Mitsubishi Heavy Industries, Ltd ("MHI") submitted to the U.S. Nuclear Regulatory Commission ("NRC") the US-APWR Design Control Document ("DCD") Revision 0 on December 31, 2007 [1] and Revision 1 on August 29, 2008 [2]. Since the US-APWR design has been impacted by numerous recent events, MHI is planning to submit the US-APWR DCD Revision 2 in October 2009 prior to the submittal of the Revision 1 of Reference COLA .

2. US-APWR REVISION PLAN

The revision of the DCD will mainly include the following aspects:

1) RAI responses accepted by NRC
2) COL Items
3) Evolving regulatory requirements and guidance
   - Security
   - Aircraft Impact Assessment
4) Sub-supplier products and capabilities
5) Potential new US-APWR customer requirements

3. SCOPE OF REVISION

3.1 RAI responses accepted by NRC

The NRC Phase 1 review to issue RAI for the US-APWR DCD was completed in June 19, 2009. Incorporation of accepted RAI responses into the DCD will be maximized in Revision 2. MHI submitted the US-APWR DCD RAI Tracking Reports Revision 0, 1 and 2 to the NRC, and submitted the Tracking Report Revision 3 on August 3, 2009 to the NRC. All information in each revision of Tracking Report will be incorporated into the DCD Revision 2.

3.2 COL Items

After the DCD Revision 1 and the Luminant COLA submittal, MHI incorporated the NRC's questions related to COL Holder Items identified in COLA and submitted a letter [3] for the proposed changes for COL Information Items. Some of the COL Information Items are being reviewed further and will be updated including incorporation of COL RAI responses.

3.3 Evolving regulatory requirements and guidance

After DCD Revision 1 submittal, MHI evaluated the physical security assessment and aircraft

impact assessment in accordance with new NRC requirements and guidance. MHI submitted a "High Assurance Evaluation Assessment" report in September 2008 and a "Beyond DBT Aircraft Impact Assessment" report in April 2009 to the NRC. MHI is modifying the design associated with layout and structure to meet these evolving NRC requirements. MHI will continue to follow ongoing developments in regulatory guidance and make changes as necessary in the future.

3.4 Sub-supplier products and capabilities

MHI is incorporating the US procurement information and minor design adjustments to facilitate construction of the US-APWR in US and future maintenance.

3.5 Potential new US-APWR customer requirements

Small data corrections, not affecting the safety evaluation, will be made in the DCD Revision 2.

4. SUMMARY OF THE DCD SECTIONS TO BE MAINLY REVISED

Table-1 summarizes the items to be reflected in each Chapter of the DCD Revision 2.

5. NO IMPACT ON THE NRC REVIEW SCHEDULE

The above DCD revisions do not involve any changes to the safety analysis or assumptions and are considered to be insignificant. The safety envelope defined in the related regulatory documents was established and is not impacted by any changes in the DCD Revision 2. There is no impact on ITAAC in Tier 1 except those known to the NRC in RAI responses as well as from DAC closure. There is no impact on Technical Specifications except those known to NRC in RAI responses. And there is no change in methodology and design criteria.
Therefore, the DCD revision is not expected to have any impact on the NRC review schedule for the US-APWR DCD. Furthermore, in the revision, MHI clearly identifies the revised portions of the DCD so that the NRC can easily recognize the revisions.

6. SUMMARY

MHI plans to submit the DCD Revision 2 in October 2009. The revision will be used for the revision of Reference-COL Application to be submitted in November 2009. Because the technical impact of the revisions is insignificant, the revisions should not impact the NRC review schedule.

7. REFERENCE

[1] Letter MHI Ref: UAP-HF-07170 from M. Kaneda (MHI) to U.S. NRC, "Mitsubishi Heavy Industries Ltd. Application for Design Certification of the US-APWR Standard Plant Design" dated on December 31, 2007.

[2] Letter MHI Ref: UAP-HF-08153 from Y. Ogata (MHI) to U.S. NRC, "Submittal of US-APWR Design Control Document Revision 1 in Support of Mitsubishi Heavy Industries, Ltd.'s Application for Design Certification of the US-APWR Standard Plant Design" dated on August 29, 2008.

[3] Letter MHI Ref: UAP-HF-08259 from Y. Ogata (MHI) to U.S. NRC, "Transmittal of COL Information Update for US-APWR Design Control Document Revision" dated on November 7, 2008.

Table 1 Items to be reflected in each Chapter (1 of 4)

	[1] RAI	[2] COL Item	[3] Regulatory Requirements & Guidance	[4] Sub-supplier Products	[5] Potential Customer Requirements	[6] Evolving Activities	[8] Other	Note
Tier1	X	-	Following items change due to layout change - Layout drawings - Wall thickness Some P&IDs due to Ch.9 and Ch.10 changes				-	Consistency correction with similar RAI
Ch.1	X	X	Layout drawings change			-	-	RAIs from other chapters
			Changes of walls, doors, etc. due to security, AIA, and sub-supplier products		Change to rectangular R/B basemat and uniform CV basemat			
Ch.2	X	-	Following items change due to layout change - X/Q values in key site parameters - Distances between radiation sources and receptors - Radiation source heights from ground level			-	-	-
Ch.3	X	X	Following items change due to layout change - Structural re-analysis - Flood level due to rectangular R/B basemat and additional sump tank - Location of seismic instrumentation			-	Deletion of uncoupled analysis due to coupled analysis included in DCD Rev.1	-
			EL. change of RV nozzle supports due to RV nozzle set on	Shape changes of equipment hatch and personal airlock	Change to rectangular R/B basemat, uniform CV basemat, and deeper PS/B basemat			

Table 1 Items to be reflected in each Chapter (2 of 4)

	[1] RAI	[2] COL Item	[3] Regulatory Requirements & Guidance	[4] Sub-supplier Products	[5] Potential Customer Requirements	[6] Evolving Activities	[8] Other	Note
Ch.4	X	X	-	-	-	-	-	-
Ch.5	X	X	RV nozzle set on	Add candidates materials for Pzr surge/spray line and heater sleeve	-	-	Change a emergency letdown line connection to RC loop	-
			Following items change due to layout change - Connection of RHR discharge lines - Add a vent valve in Pzr relief line					
Ch.6	X	X	Following items change due to layout change - Trains installed RHR Hx bypass line - Pipe lengths between CV and valves			LOCA M&E Input data correction	-	Containment re-analysis [1], [6] Sub-compartment re-analysis [1]
Ch.7	X	X	-	Train Configuration of Turbine Trip SV	-	-	-	-
Ch.8	X	X	-	Capacity changes of motor, battery, UAT and RAT Electrical Load List Location change of UPS N21 and N22 MV switchgear spec.	-	-	-	-

Table 1 Items to be reflected in each Chapter (3 of 4)

	[1] RAI	[2] COL Item	[3] Regulatory Requirements & Guidance	[4] Sub-supplier Products	[5] Potential Customer Requirements	[6] Evolving Activities	[8] Other	Note
Ch.9	X	X	-	Fuel Rack Specifications Number of GTG compressors	-	Following items added - SFP area AHU - Inside CV isolation valves for chilled water system	-	-
			Following items change due to layout design - Additional R/B sump tank and R/B non-radioactive sump tank - Drain system drawing - Fluid system P&IDs - AAC/EPS switching board					
Ch.10	X	X	-	MSIV type change MFIV type change	-	-	-	-
Ch.11	X	X	Following items change due to layout change - Additional R/B sump tank and R/B non-radioactive sump tank - Connection of Reactor cavity drain line and permanent cavity seal drain line			Data correction of ANSI/ANS-18.1-1999	-	-
Ch.12	X	X	Following items change due to layout change - Radiation zone drawings - Wall thickness - Radiation dose			-	-	-
Ch.13	X	X	-	-	-	-	-	-
Ch.14	X	X	-	-	-	-	-	-

Table 1 Items to be reflected in each Chapter (4 of 4)

	[1] RAI	[2] COL Item	[3] Regulatory Requirements & Guidance	[4] Sub-supplier Products	[5] Potential Customer Requirements	[6] Evolving Activities	[8] Other	Note
Ch.15	X	-	-	(a)Fuel Grid spacer position	-	Safety re-analysis (b)Initial Fuel temp. data correction (c) Core flow geometry data correction (d) Material property data correction (e) Code error correction	-	LBLOCA (a) (b) (d) (e) SBLOCA (a) (b) (e) Non-LOCA (b) (c)
			Radiation dose re-analysis due to layout change			-	-	-
Ch.16	X	-	TSTF-427, 511	-	-	-	-	-
Ch.17	X	X	-	-	-	-	-	DRAP re-evaluation due to Ch.19 PRA change
Ch.18	X	X	-	-	-	-	-	-
Ch.19	X	X	Fire and Flooding PRA re-evaluation due to layout change			-	-	PRA (Internal event) re-evaluation due to RAI

Enclosure 2

Relation Matrix between the Changes and Affected Sections on the US-APWR DCD Revision 2

August 2009

Relation Matrix between the changes and affected sections on the US-APWR DCD Revision 2 (1/5)

Chapter	Revision Item	Affected Sections																			
		Tier 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Tier 1	Following items change due to layout change - Layout drawings - Wall thickness Some P&IDs due to Ch.9 and Ch.10 changes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	Changes of walls, doors, etc. due to security, AIA, and sub-supplier products	Figure 2.2-2 to 13 Table 2.2-2	Figure 1.2-1 to 51																		Section 19.1.5
	Change to rectangular R/B basemat and uniform CV basemat	Figure 2.2-2 to 13	Figure 1.2-1 to 51																		
2	Following items change due to layout change - X/Q values in key site parameters - Distances between radiation sources and receptors - Radiation source heights from ground level	Table 2.1-1		Table 2.0-1 Table 2.3-2 to 4																	
3	Following items change due to layout change - Structural re-analysis				Section 3.8.4.4.1 3.8.4.4.2 Table 3.8.4-6 to 14 3.8.5-1 3.8.5-2 3.8.5-4 3.8.5-5																
	- Flood level due to rectangular R/B basemat and additional sump tank				Section 3.4.1.5.2																
	- Location of seismic instrumentation				Section 3.7.4.2 Table 3.7.1-3																
	EL. change of RV nozzle supports due to RV nozzle set on				Section 3.8.3.1.1 3.8.3.1.5		Section 5.3.3.1														
	Shape changes of equipment hatch and personal airlock				Figure 3.8.1-6, 7																
	Change to rectangular R/B basemat, uniform CV basemat, and deeper PS/B basemat	Figure 2.2-2 to 13			Section 3.8.5.1.1 3.8.5.4.2 3.8.5.1.2																
	Deletion of uncoupled analysis due to coupled analysis included in DCD Rev.1				Section 3.7.2 3.8.4.4.1 3.8.4.4.2																
4	-																				
5	RV nozzle set on				Section 3.8.3.1.1 3.8.3.1.5		Section 5.3.3.1														
	Add candidates materials for Pzr surge/spray line and heater sleeve						Table 5.2.3-1sht 2 5.2.3-1sht 3														

Relation Matrix between the changes and affected sections on the US-APWR DCD Revision 2 (2/5)

Chapter	Revision Item	Affected Sections																			
		Tier 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
	Following items change due to layout change - Connection of RHR discharge lines - Add a vent valve in Pzr relief line				Table 3.12-6 Figure3 E-1,2		5.1 5.4.3 Figure 5.4.3-1 5.4.7-1														
	Change a emergency letdown line connection to RC loop	Table 2.4.4-2 thru 2.4.4-4, Figure 2.4.4-1			Table3.2-2 Table3.9-14 Table3D-2 Figure3 E-1		Figure 5.1-2 5.4.7-1	Section 6.3.2.1.3													
6	Following items change due to layout change - Trains installed RHR Hx bypass line	Figure 2.4.5-1					Figure 5.4.7-1, 5.4.7-2	Figure 6.2.2-1													
	- Pipe lengths between CV and valves							Table 6.2.4-3													
	LOCA M&E Input data correction							Table 6.2.1-8 6.2.1-15 6.2.1-16 6.2.1-26 6.2.1-27 Figure 6.2.1-3 6.2.1-4 6.2.1-39 to 65 6.2.1-68													
7	Train Configuration of Turbine Trip SV								Section 7.3.1.11 Figure 7.3-4												
8	Capacity changes of motor, battery, UAT and RAT Electrical Load List Location change of UPS N21 and N22 MV switchgear spec.									Figure 8.1-1 Section 8.2.1.2 Section 8.3.1 Table 8.3.1-1 8.3.1-3 8.3.1-5 8.3.1-6 8.3.1-9 Table 8.3.2-2 8.3.2-3 Figure 8.3.1-2 8.3.2-1								Section 16.3.8.4			

Relation Matrix between the changes and affected sections on the US-APWR DCD Revision 2 (3/5)

Chapter	Revision Item	Affected Sections																			
		Tier 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
9	Fuel Rack specifications										Section 9.1.2.2.1 9.1.2.2.2 Figure 9.1.1-1 9.1.2-1 9.1.1-2 9.1.2-2 Table 9.1.2-1										
	Number of GTG compressors										Section 9.5.6.2 9.5.6.2.1 9.5.6.2.2 Table 9.5.6-1 Figure 9.5.6-1										
	Following items change due to layout design - Additional R/B sump tank and R/B non-radioactive sump tank - Drain system drawing - Fluid system P&IDs	Figure 2.7.6.8-1			Table 3.2-2 (Sheet 39 of 53)						Figure 9.3.3-1 Sht 1 & 2										
	- AAC/EPS switching board	Section 2.2.1.8, Table 2.2-4, Section 2.6.5.1, Table 2.6.5-1								Section 8.4.1 Table 8.3.1-9	Section 9.4.4.1.2 9.4.4.2.2 9.4.5.2.2 Table 9.4-1 9.4.5-1 Figure 9.4.5-2					Table 14.3-1d					Section 19.5.3.1 Table 19.1-115
	Following items added - SFP area AHU	Table 2.7.5.2-1, 2.7.5.2-2, Figure 2.7.5.2-4			Table 3.2-2 3.9-14 3.D-2						Section 9.4.5 Figure 9.4.5-5										
	- Inside CV isolation valves for chilled water system	Section 2.7.5.3.1 .2, 2.7.5.3.1 .3, Table 2.11.2-1, Figure 2.11.2-1			Table 3.2-2 3.9-14 3.D-2			Table 6.2.4-3 Figure 6.2.4-1			Section 9.2.7 Figure 9.2.7-2										
10	MSIV type change	Section 1.5, Table 2.7.1.2-2, 2.7.1.2-4, Figure 2.7.1.2-1, Table 2.11.2-1, Figure 2.11.2-1										Section 10.3.2.3 Table 10.3.2-2 10.3.3-1									

Relation Matrix between the changes and affected sections on the US-APWR DCD Revision 2 (4/5)

Chapter	Revision Item	Affected Sections																			
		Tier 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
	MFIV type change	Section 1.5, Table 2.7.1.9-2, 2.7.1.9-4, Figure 2.7.1.9-1, Table 2.11.2-1, Figure 2.11.2-1										Section 10.4.7.2 Figure 10.4.7-1									
11	Following items change due to layout change - Additional R/B sump tank and R/B non-radioactive sump tank	Figure 2.7.6.8-1			Table 3.2-2 (Sheet 39 of 53)								Table 11.2-3 Shts 1 & 2 11.2-4 Figure 11.2-1 Sht 1								
	- Connection of Reactor cavity drain line and permanent cavity seal drain line												Figure 11.2-1								
	Data correction of ANSI/ANS-18.1-1999												Table 11.1-9 Sht 2 11.2-10 Sht 1 11.2-12 Sht 1								
12	Following items change due to layout change - Radiation zone drawings													Figure 12.3-1 through 12.3-6 12.3-9							
	- Wall thickness													Table 12.3-1							
	- Radiation dose													Table 12.3-3 Shts 1 - 3							
13	-																				
14	-																				

Relation Matrix between the changes and affected sections on the US-APWR DCD Revision 2 (5/5)

Chapter	Revision Item	Affected Sections																			
		Tier 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
15	Safety re-analysis (a)Fuel Grid spacer position (b)Initial Fuel temp. data correction (c) Core flow geometry data correction (d) Material property data correction (e) Code error correction																Section 15.6.5.3.3 Table 15.6.5-6 to 14 Figure 15.6.5-1 to 7 15.6.5-9 to 12 15.6.5-14 to 40				
	Radiation dose re-analysis due to layout change																Table 15.0-17 15.1.5-2 15-3.3-5 15.4.8-4 15.6.2-2 15.6.3-5 15.6.5-16 15.7.4-215A-18 to 15A-23 Figure 15A-1				
16	TSTF-427																	Ch. 16 TS 3.0 Specs and Bases Pages 3.0-1 and 3.0-3 Pages B.0-1 and 3.0-12 through 14			
	TSTF-511																	Ch 16 TS 5.2.2 Specs Page 5.2-2			
17	-																				
18	-																				
19	Fire and Flooding PRA re-evaluation due to layout change	Section 2														Table 14.3-1d			Section 17.4		Section 19.1.5 Table 19.1-115 Sht 5 Of 5 DCD_19-52

Enclosure 3

US-APWR Topical/Technical Report Revision Plan

August 2009

US-APWR Topical/Technical Report Revision Plan (1 of 3)

	Report No	Report Name	Type	Supports DCD Chapter	Rev	Submitted Dates	Change Item	Planned Date for revision
3	MUAP-09015-P & NP	Comparison of the Estimated Loads and Actual Loads for RCL Components and Piping Nozzles	TEC	3.9.3	0	06/04/09	Due to Layout Change	TBD(12/2010)
3	MUAP-09004-P & NP	Summary of Stress Analysis Results for Core Support Structures	TEC	3.9 (5)	0	03/31/09	Due to Lay out Change	TBD(12/2010)
3	MUAP-09005-P & NP	Summary of Stress Analysis Results for Reactor Vessel	TEC	3.9 (5)	0	03/31/09		
3	MUAP-09006-P & NP	Summary of Stress Analysis Results for Steam Generator	TEC	3.9 (5)	0	03/31/09		
3	MUAP-09007-P & NP	Summary of Stress Analysis Results for Pressurizer	TEC	3.9 (5)	0	03/31/09		
3	MUAP-09008-P & NP	Summary of Stress Analysis Results for Reactor Coolant Pump	TEC	3.9 (5)	0	03/31/09		
3	MUAP-09009-P & NP	Summary of Stress Analysis Results for Control Rod Drive Mechanizm	TEC	3.9 (5)	0	03/31/09		
3	MUAP-09010-P & NP	Summary of Stress Analysis Results for Reactor Coolant Loop Piping	TEC	3.9 (5)	0 1	03/31/09 06/04/09		
3	MUAP-09011-P & NP	Summary of Stress Analysis Results for Reactor Coolant Loop Branch Piping (1)	TEC	3.9 (5)	0	03/31/09	Due to Layout Change	TBD(12/2010)
3	MUAP-09012-P & NP	Summary of Stress Analysis Results for Accumulator	TEC	3.9 (5)	0	03/31/09	Due to Layout Change	TBD(12/2010)
3	MUAP-09013-P & NP	Summary of Stress Analysis Results for Main Steam Piping inside Containment Vessel	TEC	3.9 (5)	0	03/31/09	Due to Layout Change	TBD(12/2010)
3	MUAP-09001-P & NP	Summary of Design Transient (for ASME Class 1 Components)	TEC	3.9.1.1	0	02/02/09		
3	MUAP-08005	Dynamic analysis of the coupled RCL-R/B-PCCV-CIS Lumped Mass Stick	TEC	3.7.2	0	04/25/08		
3	MUAP-08002	Enhanced Information for PS/B Design	TEC	3.8.4.4.2	0	02/27/08	Due to Layout Change	TBD(12/2010)
3	MUAP-07023-P & NP	APWR Reactor Internals 1/5 Scale Model Flow Test Report	TEC	(1.5.2.1.1) 3.9.2	0	12/31/07		
3	MUAP-07027-P & NP	Comprehensive Vibration Assessment Program for US-APWR Reactor Internals	TEC	3.9.2.3	0	12/31/07		
3	MUAP-09002-P & NP	Summary of Seismic and Accident Load Conditions Used in the Stress Analysis for Primary Components and Piping Design	TEC	3.9.3	0 1	02/02/09 03/31/09	Due to Lay out Change	3/2010
3	UAP-HF-08056	Seismic & Dynamic Qualification of Mechanical & Electrical Equipment	RES	3.10	0	03/21/08		
3	MUAP-08015	US-APWR Equipment Environmental Qualification Program (codes, standards, equip op times, design basis, design aspects, procurement of qualified equipment, EQ program post LOCA)	TEC	3.10.4.1, 3.11	0	02/13/09	RAI Response	10/2009
4	MUAP-07009-P & NP	Thermal Design Methodology	TOP	4 (15)	0	5/31/07		
4	UAP-HF-07080-P&NP	Test Plan: Reactor Vessel Lower Plenum 1/7 Scale Model Flow Test	WP	1.5.2.1.2 4	0	7/13/07		
4	MUAP-07022-P & NP	US-APWR Reactor Vessel Lower Plenum 1/7 Scale Model Flow Test	TEC	1.5.2.1.2 4	0	6/30/08		
4	MUAP-07008-P & NP	Fuel System Design Criteria and Methodology	TOP	4.2 (15.0)	0	5/31/07		
4	MUAP-07016-P & NP	US-APWR Fuel System Design	TEC	4.2	0	2/28/08	Change Fuel Grid Spacing	10/2009
4	MUAP-07034-P & NP	FINDS: Mitsubishi Fuel Assemblies Seismic Analysis Code	TOP	4.2		3/31/08		
4	MUAP-07018-P & NP	US-APWR Fuel System Design Parameters List	TEC	4.2.2	0	12/31/07		
4	MUAP-08007-P &NP	Evaluation Results of Structural Response Analysis of US-APWR Fuel System under Seismic and LOCA	TEC	4.2.3.5.2	0	03/31/09	Due to Layout Change	TBD(12/2010)
4	MUAP-07021-P & NP	US-APWR Incore Power Distribution Evaluation Methodology	TEC	4.3.2	0	12/31/07		
4	MUAP-07019-P & NP	Qualification of Nuclear Design Methodology Using PARAGON/ANC	TEC	4.3.2 4.3.3	0	12/31/07		
4	MUAP-07020	Validation of Criticality Safety Methodology	TEC	4.3.3 (9.1.1)	0	12/31/07		
4	MUAP-09018-P & NP	Calculation Methodology for Reactor Vessel Neutron Flux and Fluence	TEC	4.3	0	07/31/09	Including comments on DORT Audit	8/5/2009
4	MUAP-07015	FMEA of Control Rod Drive Mechanism Control System	TEC	4.6.2	0	12/31/07		
5	MUAP-09016	Pressure and Temperature Limits Report	TEC	5.3.2	0	06/08/09		
5	MUAP-09017	Technical Justification of ISI Intervals for Reactor Coolant Pump Flywheel using Probabilistic Fracture Mechanics	TEC	5.4.1	0	07/10/09		
5	MUAP-07035	Structural Analysis for US-APWR Coolant Pump Motor Flywheel	TEC	5.4.1.1	0	12/31/07		
6	MUAP-07012-P & NP	LOCA Mass and Energy Release Analysis Code Applicability Report for US-APWR	TOP	6	0 1 2	7/20/07 2/28/08 5/30/08		

Note : Type "TOP" means Topical Report, "TEC" means Technical Report, "RES" means Reponse to RAI/NRC Questions, "WP" means White Paper

US-APWR Topical/Technical Report Revision Plan (2 of 3)

	Report No	Report Name	Type	Supports DCD Chapter	Rev	Submitted Dates	Change Item	Planned Date for revision
6	MUAP-07001-P & NP	The Advanced Accumulator	TOP	6	0	1/31/07		
					1	3/2/07		
					2	9/23/08		
6	MUAP-08006-P & NP	US-APWR Sump Debris Chemical Effects Test Plan	TEC	6	0	06/30/08		
					1	2008/11/27		
6	MUAP-08001-P & NP	US-APWR Sump Strainer Performance	TEC	(5.2) 6.3	0	02/28/08	Incorporating Debris Head Loss Test Results	TBD(12/2009)
					1	9/29/08		
					2	2008/12/26		
6	MUAP-07031-P & NP	Subcompartment Analyses for US-APWR Design Confirmation	TEC	6.2.1.2	0	02/28/08	RAI response Changing the evaluation results	10/2009
6	MUAP-08011-P & NP	US-APWR Sump Debris Chemical Effects Test Results	TEC	6	0	11/28/08		
6	MUAP-08012-P & NP	Sump Strainer Stress Report	TEC	6	0	12/12/08	Due to Layout Change	TBD(12/2010)
6	MUAP-08013-P & NP	Sump Strainer: Downstream Effects, Supplemented with additional details in ex-vessel and in-vessel issues	TEC	6	0	2008/12/26	Further examination related to onging consideration preceding, if needed.	TBD(12/2009)
6	NA	Sump Strainer: Chemical Effects, Audit/Observation of the test	Audit	6.2 6.3	0	09/17/2008 - 09/18/2008		
7	MUAP-07004-P & NP	Safety I&C System Description and Design Process	TOP	7	0	3/7/07	RAI response	9/2009
					1	7/9/07		
					2	12/16/08		
7	MUAP-07005-P & NP	Safety System Digital Platform - MELTAC	TOP	7	0	3/7/07	RAI response	TBD(12/2009)
					1	7/9/07		
						3/31/08		
					2	8/5/08		
					3	12/16/08		
7	MUAP-07006-P & NP	Defense-in-Depth and Diversity	TOP	7	0	4/13/07	Issuing Approved Version	TBD (after SER issue)
					1	7/9/07		
					2	6/20/08		
7	MUAP-07017	Software Program Manual	TEC	7.1.3.17 7.9.2.2	0	12/31/07	RAI Response	10/2009
7	MUAP-07014	Defense in Depth and Diversity Coping Analysis	TEC	7.8	0	12/31/07	According to SER for MUAP-07006	TBD(12/2009)
					1	6/20/08		
7	MUAP-08003-P & NP	US-APWR Cyber Security Program	TEC	7.9	0	08/29/08		
7	TBD	FMEA of Safety I&C System	TEC	7.3	0	9/30/2009		
7	TBD	Response Time Analysis of Safety I&C System	TEC	7.9	0	9/30/2009		
7	TBD	Instrument Setpoint Methodology	TEC	7	0		Additional Report	10/2009
7	NA	MELTAC, MNES Arlington, VA	Audit	7		09/02/2008 - 09/05/2008		
7	NA	Digital I&C, MNES Arlington, VA	Audit	7		09/02/2008 - 09/05/2008		
7	NA	Digital I&C and MELTAC, TOMARI, Japan	Audit	7		03/02/2009- 03/07/2009		
8	MUAP-07024-P & NP	Qualification & Test Plan of Class 1E Gas Turbine Generator System	TEC	8.3.1	0	12/5/07	Related RAI to GTG	10/2009
8	TBD	Onsite Power System Calculation	TEC	8.3.1	0		Additional Report	8/2009
9	MUAP-07032-P & NP	Criticality Analysis for US-APWR New and Spent Fuel Storage Racks	TEC	9	0	2/28/08	To be revised due to the final selection of neutron absorbing material and the re-design because of the procurement of the fuel storage rack design	8/2009
9	MUAP-07033-P & NP	Mechanical Analyses for US-APWR New and Spent Fuel Racks (description of fuel racks, load definition, design & analysis procedures, and analysis results)	TEC	9.1	0	03/31/09	Due to Layout Change	TBD(12/2010)
9	MUAP-09014-P & NP	Thermal-Hydraulic Analysis for US-APWR Spent Fuel Racks	TEC	9.1.3	0	06/05/2009		
9	UAP-HF-08095	Lighting Systems	RES	9.5.3		05/30/08		
10	MUAP-07028-P & NP	Probability of Missile Generation from Low Pressure Turbine	TEC	10.2.3.5	0	12/31/07		
10	MUAP-07029-P & NP	Probabilistic Evaluation of Turbine Valve Test Frequency	TEC	10.2.3.5	0	12/31/07		
13	SGI	Design Certification Physical Security Element Review	TEC	13.6	0	02/25/08	RAI Response	TBD(12/2009)
					1	2008/10/2		
13	SGI	High Assurance Evaluation Assessment	TEC	13.6	0	2008/10/2	RAI Response	TBD(12/2009)
					1	2009/9/30		
13	MUAP-08010 (SRI)	Mitigative Measures Evaluation for the US-APWR	TEC	13.6	0	11/17/08	RAI Response	TBD(12/2009)
14	MUAP-08009	US-APWR Test Program Description	TEC	14.2	0	09/30/08		
15	MUAP-07010-P & NP	Non-LOCA Methodology	TOP	15, 6.2.1.4	0	2007/7/31		
15	MUAP-07011-P & NP	Large Break LOCA Code Applicability Report for US-APWR	TOP	15.6.5	0	7/31/07		
15	MUAP-07013-P & NP	Small Break LOCA Methodology for US-APWR	TOP	15.6.5	0	7/31/07		-

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US-APWR Topical/Technical Report Revision Plan (3 of 3)

	Report No	Report Name	Type	Supports DCD Chapter	Rev	Submitted Dates	Change Item	Planned Date for revision
15	MUAP-08008-P & NP	Neutron Reflector Reflooding Confirmatory Test	TEC	15	0	08/22/08		
15	MUAP-07025-P & NP	Small Break LOCA Sensitivity Analyses for US-APWR	TEC	15.6.5.3	0	12/31/07	*Any change related to the code and input updates for the DCD Revision 2 is minor, which does not significantly affect the conclusion derived from the SBLOCA scoping analysis (sensitivity study). Therefore, MHI plans to revise only the limiting SBLOCA cases for DCD.*	
15	UAP-HF-08037	Responses to NRC's Questions for NRC's Acceptance Review of the US-	RES	15,6,4,	NA	02/08/08		
15	UAP-HF-08045-P & NP	Supplemental Responses to NRC's Questions for NRC's Acceptance Review of the US-APWR DCA (Operator Actions assumed in Safety Analyses&Power Level and Mode for the selection of the Limiting Case in Safety Analyses)	RES	15	NA	02/28/08		
15	UAP-HF-07057	US-APWR M-RELAP5 Code Validation Plan (Preliminary)	WP	15	0	6/11/07		
15	UAP-HF-07081-P&NP	Test Plan: Neutron Reflector Reflooding	WP	15	0 1	7/13/07 10/29/07		
16	MUAP-07026-P & NP	Mitsubishi Reload Evaluation Methodology	TEC	16 (5.6.3, B3.1.3, B3.1.8, B3.1.9)	0	12/31/07		
16	MUAP-07036	Justification for Deviations Between NUREG-1431 Rev 3.1 and US-APWR Technical Specifications	TEC	16	0 1	12/31/07 08/29/08	To make consistency with DCD Rev. 2 due to RAI responses	10/2009
17	PQD-HD-19005 MUAP-07002/07003	Quality Assurance Program (QAP) Description For Design Certification of the US-APWR	TOP	17	0 1 2	1/31/07 10/15/07 11/21/08	May change per the cahnge of organization	10/2009
18	MUAP-09019	Phase 1b - US-APWR Basic HIS System and Phase 2a - US-APWR Generic DAC: HSI Design Technical Report (including Style Guide (addresses NUREG 0700 & 0071), includes Functional Requirements Analysis/Function Allocation, Task Analysis (for HIS/HFE design) and Human Reliability Analysis.)	TEC	18.3, 18.4, 18.6, 18.7		06/30/2009		
18	MUAP-08014-P & NP	Phase 1 a - US Assessment of Japanese Basic HIS System: Operator V & V Technical Report (including HFE Analysis Report, V&V evaluation strategy, and V&V results & Operator Experience Report (OER) and Functional Allocation	TEC	18.2 18.10	0	12/17/2008		
18	MUAP-07007-P & NP	HSI System Design And HFE Process	TOP	18	0 1 2	4/13/07 7/9/07 9/5/08	RAI response	10/2009
19	MUAP-07030-P & NP	Probabilistic Risk Assessment (Level 1/2)	TEC	(7.1), 19.0, 19.2	0 1	12/31/07 9/29/08	PRA re-evaluation due to RAI	12/2009
19	MUAP-08004-P & NP	Probabilistic Risk Assessment (Level 3)	TEC	19.2.6.1, Environ-mental Report	0 1	03/31/08 9/29/08	Reflect PRA re-valuation due to RAI (minor change)	12/2009
19	UAP-SGI-09001	Beyond DBT Aircraft Impact Assessment (AIA). (Based on NEI 07-13, consistent with newly revised 52.500)	TEC or an Audit	19	0	4/30/2009	To be revised due to the modification of layout and system design in DCD R2.	2/2010
19	UAP-HF-08052	Conversion table for P&ID to PRA components numbers	RES	19	NA	03/03/08		

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