

  
**MITSUBISHI HEAVY INDUSTRIES, LTD.**  
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TOKYO, JAPAN

July 7, 2011

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-11208

**Subject: Transmittal of the amendment of the Updated Tier 2, Chapter 12 of US-APWR DCD**

- Reference:**
- 1) Letter MHI Ref: UAP-HF-11078 from Y. Ogata (MHI) to U.S. NRC, "Submittal of US-APWR Design Control Document Revision 3 in Support of Mitsubishi Heavy Industries, Ltd.'s Application for Design Certification of the US-APWR Standard Plant Design" dated on March 31, 2011.
  - 2) Letter MHI Ref: UAP-HF-11091 from Y. Ogata (MHI) to U.S. NRC, "Transmittal of the Updated Tier 2, Chapters 9, 10 and 12 of US-APWR DCD" dated on April 6, 2011.

Mitsubishi Heavy Industries, Ltd. ("MHI") transmitted to the U.S. Nuclear Regulatory Commission ("NRC") Staff the proposed mark-up to be made to DCD Revision 3 (Reference 1) under MHI Reference UAP-HF-11091 on April 6, 2011 (Reference 2). However, change IDs unintentionally written in the right margin of the proposed mark-up for Chapter 12 were incorrect.

With this letter, MHI submits to the NRC Staff the amendment of the proposed mark-up for Chapter 12. This update will be incorporated into future DCD revisions.

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

Sincerely,



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

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NRD

Enclosure:

1. Update of Tier 2, Chapter 12 of US-APWR DCD

CC: J. A. Ciocco  
C. K. Paulson

Contact Information

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Enclosure 1

UAP-HF-11208  
Docket No. 52-021

Update of Tier 2, Chapter 12 of US-APWR DCD

July, 2011



**Table 12.3-8 Regulatory Guide 4.21 Design Objectives and Applicable DCD Subsection Information for Minimizing Contamination and Generation of Radioactive Waste (Sheet 60 of 61)**

**Auxiliary Steam Supply System**

(Note: The "System Features" column consists of excerpts/summary from the DCD)

Objective		System Features	DCD Reference
1	Minimize leaks and spills and provide containment in areas where such events may occur.	The condensate piping from the ASSS drain tank is a single-walled carbon steel pipe run above ground in pipe chases from the A/B to the T/B, and is then connected to double-walled welded carbon steel piping through the T/B wall penetration to the auxiliary boiler. Since this is not a high traffic area, this segment of pipe is run above ground and is slightly sloped so that any leakage is collected in the outer pipe and drained to the auxiliary boiler building. At the auxiliary boiler building end, a leak detection instrument is provided to monitor leak. A drain pipe is provided to direct any drains to the building sump. The steam piping is jacketed with insulation and heat protection. <u>The Auxiliary Boiler is designed with a blowdown connection from the boiler drum to the building sump. The boiler blowdown is drained directly into the sump for transfer into the Turbine Building sump. The T/B sump contents are then pumped to the Waste Holdup Tanks in the LWMS for processing.</u> This design is supplemented by operational programs which includes periodic hydrostatic or pressure testing of pipe segments, instrument calibration, and when required, visual inspection and maintenance of piping, trench and instrument integrity.	10.4.11.2.1
2	Provide for adequate leak detection capability to provide prompt detection of leakage for any structure, system, or component which has the potential for leakage.	<p>The auxiliary steam drain monitors the leakage of the radioactive materials from the boric acid evaporator to the condensed water of the ASSS.</p> <p>Monitoring the leakage from the primary side of the evaporator, the radiation monitor is attached to the downstream of the auxiliary steam drain pump. The high alarm of the monitor isolates the pump discharge line and steam supply line from main steam and trips the pump.</p> <p><b>Leakage of radioactive materials from primary side in the B/A evaporator.</b></p>	<p>10.4.11.1.2</p> <p>10.4.11.2.1</p> <p>10.4.11.2.3</p>

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