

REQUEST FOR ADDITIONAL INFORMATION 533-4261 REVISION 2

3/2/2010

US-APWR Design Certification

Mitsubishi Heavy Industries

Docket No. 52-021

SRP Section: 11.03 - Gaseous Waste Management System
Application Section: 11.3

QUESTIONS for Health Physics Branch (CHPB)

11.03-15

Staff review of DCD Tier 1, Revision 2, Section 2.7.4.2 and Table 2.7.4.2-1 found that information on ITAAC for the GWMS to demonstrate compliance with 10 CFR 52.47(b)(1) and to provide reasonable assurance that a plant that incorporates the US-APWR design certification and operates in accordance with the design certification will meet the provisions of the Atomic Energy Act and NRC regulations was not fully described. Without confirming the initial introduction of the proper types and amounts of charcoal media and desiccants, and delay time, the GWMS would fail to meet the design criteria in the DCD Tier 2, Revision 2, Section 11.3.1.2. As a result, gaseous releases could exceed 10 CFR 20, Appendix B, Table 1, effluent concentration and dose limits, and 10 CFR 50, Appendix I dose objectives. The staff requests the applicant to address the following:

1. Describe in DCD Tier 1, Section 2.7.4.2.1, how the GWMS is designed to process gaseous waste prior to release and ensure compliance with 10 CFR 20, Appendix B, Table 1 effluent concentration and dose limits, and 10 CFR 50, Appendix I dose objectives for gaseous effluents when the plant is operational.
2. Describe in DCD Tier 1, Section 2.7.4.2.1, the process design of the GWMS subsystems and how the initial loading of the subsystem demineralizers and vessels includes the proper types and amounts of charcoal media and desiccant, and delay time that will meet or exceed the system design descriptions and parameters listed in DCD Tier 2, Revision 2, Tables 11.3-1 and 11.3-2. Provide in DCD Tier 1, Table 2.7.4.2-1, the assigned ITAAC to confirm the charcoal quantity.
3. Provide in DCD Tier 1, Table 2.7.4.2-1, the assigned ITAAC to confirm the radiation monitor at the discharge side of the adsorbers which sends a signal to close the GWMS discharge valves upon detection of radiation levels above the set point monitor, source test of the radiation monitor, alarms, indications, and automatic initiation functions as described in DCD Tier 1, Revision 2, Section 2.7.4.2.1 and DCD Tier 2, Revision 2, Sections 11.3.2.1.6 and 11.5.2.4.1.

Please revise the DCD to include this information and provide a markup.