

REQUEST FOR ADDITIONAL INFORMATION 534-4256 REVISION 2

3/2/2010

US-APWR Design Certification

Mitsubishi Heavy Industries

Docket No. 52-021

SRP Section: 11.04 - Solid Waste Management System

Application Section: 11.4

QUESTIONS for Health Physics Branch (CHPB)

11.04-19

Staff review of DCD Tier 2, Revision 2, Sections 11.2.1.6 and 11.4.1.6, and response to the staff's question (RAI 185-2031, Revision 0, Question 11.04-2, dated March 11, 2009) found that information on the future mobile unit for compliance with 10 CFR 52.80a, 10 CFR 20.1406, and 10 CFR 50.34a was not fully described. The staff requests the applicant to address the following:

1. ANSI/ANS-40.37-1993, "Mobile Radioactive Waste Processing System" has been administratively withdrawn by the American National Standards Institute (ANSI). Based on information from ANSI, an approved revision to this standard is expected to be available around February 2010. Please justify the use of this withdrawn ANSI standard. (The staff recognizes that ANSI/ANS-40.37-1993 is currently listed as a reference in the SRP.)
2. In DCD Tier 2, Revision 1, Section 11.4.8, the requirement for the COL applicant to prepare a plan to develop and use operating procedures using guidance in IE Bulletin 80-10 previously included in COL 11.4(4) was deleted in DCD Tier 2, Revision 2. SRP Sections 11.2 and 11.4 state that radwaste processing systems (either as permanently installed systems or in combination with mobile equipment) with a potential for leakage shall provide means to control and contain this leakage to prevent contamination of building floors and interconnected systems to meet compliance with 10 CFR 20.1406. Please describe in Sections 11.2 and 11.4, the procedural outline that will be used to control and contain leakage produced during normal operation and AOOs from operation of the future mobile unit.
3. Please describe the tests such as pressure testing, hydrostatic testing, etc. that will be performed to ensure that flexible connections used between the permanently installed equipment and the future mobile unit described in DCD Tier 2, Revision 2, Sections 11.2 and 11.4 to verify design specifications are met for compliance with 10 CFR 52.80(a), or justify their exclusion.
4. RG 4.21 provides examples of measures to control and minimize facility contamination acceptable to the NRC to meet compliance with 10 CFR 20.1406. Specifically, Appendix A-1.r. identifies measures for mobile and/or temporary systems such as self-sealing quick disconnects as a means to promptly isolate leaks in potentially radioactive lines, operational interlocks to minimize the possibility of leakage and contamination, and design considerations to ensure that spills and leaks from skid-mounted systems will be contained and routed to radioactive waste drains. Further, the SRP describes provisions for mobile

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radwaste processing systems with interconnections to permanently installed plant subsystems that avoid contamination of nonradioactive systems, prevent uncontrolled and unmonitored releases of radioactive materials in the environment, and avoid interconnections with potable and sanitary water systems. Please describe how the future mobile unit design and COL 11.4(4) adopts these control measures and provisions, conforms to RG 1.143, and complies with 10 CFR 50.34a and 10 CFR 20.1406 in Sections 11.2 and 11.4. (See DCD Tier 2, Revision 2, Section 11.2.1.6 and COL 11.2(1) as partial examples.)

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