

REQUEST FOR ADDITIONAL INFORMATION NO. 74-1117 REVISION 0

9/24/2008

US-APWR Design Certification

Mitsubishi Heavy Industries

Docket No. 52-021

SRP Section: 09.05.02 - Communications Systems

Application Section: 9.5.2

QUESTIONS for Instrumentation, Controls and Electrical Engineering 1 (AP1000/EPR Projects) (ICE1)

09.05.02-1

RAI 9.5.2-1

10 CFR 50, Appendix E, IV.E(9) requires at least one onsite and one offsite communications system, each with a backup power source. DC-FSAR Section 9.5.2.2.2 indicates that the plant PABX allows for normal and emergency communications. This indicates some communication or dependence between normal and emergency communications. DC-FSAR Section 9.5.2.2.5.2 states that "Effective emergency onsite and plant-to-offsite communications is provided by the onsite PABX and the offsite emergency response center PABX systems." This indicates two independent systems. Describe the independence between the onsite PABX and the offsite emergency response center PABX systems and their power sources (including backup power sources).

09.05.02-2

RAI 9.5.2-2

DC-FSAR Sections 9.5.2 and 13.6 neither reference 10 CFR 73.45(g)(4)(i) nor discuss routine security operations. Address the ability of the communications networks to transmit rapid and accurate security information among onsite forces for routine security operation, assess contingencies, and response to a contingency.

09.05.02-3

RAI 9.5.2-3

DC-FSAR Sections 9.5.2 and 13.6 neither reference 10 CFR 73.46(f) nor discuss continuous communications and communication networks available in the alarm station. Address the ability of the communications networks to maintain continuous communication with an individual in each continuously manned alarm station; the ability to call for assistance from other guards, watchmen, and armed response personnel and from law enforcement authorities; the availability of telephone service and radio or microwave communication, either directly or through an intermediary, for the capability of communication with the law enforcement authorities; and that the non-portable communications equipment controlled by the licensee and required by 10CFR 73.46(f) remains operable from independent power sources in the event of the loss of normal power.

REQUEST FOR ADDITIONAL INFORMATION NO. 74-1117 REVISION 0

09.05.02-4

RAI 9.5.2-4

DC-FSAR Sections 9.5.2 and 13.6 neither reference 10 CFR 73.55(f) nor discuss routine security operations. Address the capability of each guard, watchman or armed response individual on duty being capable of maintaining continuous communication with an individual in each continuously manned alarm station, who shall be capable of calling for assistance from other guards, watchmen, and armed response personnel and from local law enforcement authorities. Also address the capability of continuous communication, radio or microwave transmitted two-way voice communication, either directly or through an intermediary, in addition to conventional telephone service, between local law enforcement authorities and the facility. In addition, address the independence of the power sources for the communications equipment in the event of the loss of normal power.

09.05.02-5

RAI 9.5.2-5

DC-FSAR Section 9.5.2.1.2 states "The selection of these systems and components is based on the guidance provided in EPRI NP-5652, "Guidelines for the Utilization of Commercial Grade Items in Nuclear Safety Related Applications" (Ref. 9.5.2-8)." Also, per NUREG-0800, Section 9.5.2, the guidance of EPRI TR-106439, "Guideline on Evaluation and Acceptance of Commercial Grade Digital Equipment for Nuclear Safety Applications," (accepted by an NRC safety evaluation dated July 17, 1987) should be considered if computer-based equipment is involved. Describe how EPRI TR-106439 was considered in the selection of digital equipment for communication systems.