


MITSUBISHI HEAVY INDUSTRIES, LTD.
16-5, KONAN 2-CHOME, MINATO-KU
TOKYO, JAPAN

December 2, 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-11418

Subject: MHI's Response to US-APWR DCD RAI No. 860-6106 Revision 3 (SRP 09.05.02)

Reference: 1) "Request for Additional Information No. 860-6106 Revision 3, SRP Section: 09.05.02 – Communications Systems: Application Section 9.5.2," dated October 31, 2011.

With this letter, Mitsubishi Heavy Industries, Ltd. ("MHI") transmits to the U.S. Nuclear Regulatory Commission ("NRC") a document entitled "Response to Request for Additional Information No. 860-6106 Revision 3."

Enclosed is the response to 1 RAI contained within Reference 1.

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

Sincerely,



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

Enclosures:

1. Response to Request for Additional Information No. 860-6106 Revision 3

DOB
MRO

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

Contact Information

C. Keith Paulson, Senior Technical Manager
Mitsubishi Nuclear Energy Systems, Inc.
300 Oxford Drive, Suite 301
Monroeville, PA 15146
E-mail: ck_paulson@mnes-us.com
Telephone: (412) 373-6466

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Enclosure 1

UAP-HF-11418
Docket No. 52-021

Response to Request for Additional Information No. 860-6106,
Revision 3

December, 2011

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

12/02/2011

**US-APWR Design Certification
Mitsubishi Heavy Industries
Docket No. 52-021**

RAI NO.: 860-6106 Revision 3
SRP SECTION: 09.05.02 – Communications Systems
APPLICATION SECTION: DCD Section 9.5.2
DATE OF RAI ISSUE: 10/31/2011

Question No. : 09.05.02-12

10 CFR Part 50, Appendix E, IV,D(3) requires in part that

" ... each nuclear power reactor licensee shall demonstrate that administrative and physical means have been established for alerting and providing prompt instructions to the public within the plume exposure pathway EPZ." This means has normally included a remote warning system (sirens.)

DCD Tier 2, Section 9.5.2, "Communication Systems," mentions the interface of the PA/PL with the fire alarms and radiation alarms. The staff would assume that these fire alarms and radiation alarms actuate messages, either manually and/or automatically, that include the specific building evaluation alarms and the site evaluation alarm (some sites even have manual site-wide tornado alarm), but this is not clear. Nor is there a mention of the remote warning system (sirens to alert the general public) that is certainly a critical part of the offsite communication with the public. The staff request: 1) a clarification on the means for the building and site evaluation alarms and if these interface with the PA/PL system or they actuated through a different means; 2) a clarification if the remote warning system (sirens) is part of the Section 9.5.2 communication systems, and if not, by what means is this function and means provided and actuated; and 3) If the COL applicant is to provide details of the building and site evaluation alarms and the remote warning system (sirens), identify the COL information item that assures these details are addressed.

ANSWER:

(typo assumed evaluation = evacuation)

- 1) clarification on the means for the building and site evaluation alarms and if these interface with the PA/PL system or they actuated through a different means;

Subsection 9.5.2.2.1.2 of the DCD, "Audio Messenger Interface," describes the interfaces to the plant page system. The Audio Messenger System plays pre-recorded messages when specific alarms occur. This section identifies that the page system provides interfaces to the fire alarm and radiation monitoring systems to automatically generate evacuation messages (plant alarm function) for both plant wide and specific locations (e.g. building). In addition, the page system may be accessed by either the plant telephone system or a page handset so that specific instructions may be issued by the plant personnel

(including plant operators) anywhere there is a page handset or telephone. This allows plant personnel to issue specific instructions or directions to vacate a specific plant area(s).

2) a clarification if the remote warning system (sirens) is part of the Subsection 9.5.2 communication systems, and if not, by what means is this function and means provided and actuated;

3) identify the COL information item that assures these details are addressed.

DCD Subsection 9.5.2 only describes plant communication systems in accordance with the guidance provided in the *Standard Review Plan*, NUREG 0800 and it does not address offsite remote warning systems.

NUREG-0654/FEMA-REP-1, *Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants*, (DCD reference 13.3-3) provides guidance on the requirements for the activation of the plant Alert and Notification System (ANS). The ANS is funded by the COL applicant but operated by the Offsite Response Organizations (OROs). The activation of the ANS, including sirens, is the duty of the local/state government agencies (OROs) following guidance provided by the plant operator. Thus the remote warning system (sirens) and specific site alarm system are site issues and are therefore not addressed in the DCD. Site evacuation alarms and the remote warning system is a COL item as described in Chapter 13 of the DCD. The COL applicant is responsible for providing this information. COL item 13.3(1) identifies the need to the COL applicant to identify this system.

Impact on DCD

There is no impact on the DCD.

Impact on R-COLA

There is no impact on the R-COLA.

Impact on S-COLA

There is no impact on the S-COLA.

Impact on PRA

There is no impact on the PRA.

Impact on Technical/Topical Report

There is no impact on a Technical/Topical Report.