


MITSUBISHI HEAVY INDUSTRIES, LTD.
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TOKYO, JAPAN

August 29, 2008

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-08156

Subject: MHI's Responses to US-APWR DCD RAI No. 46-215

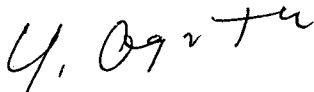
References: 1) "Request for Additional Information No. 46-215 Revision 0, SRP Section: 13.03 - Emergency Planning, Application Section: 13.3," dated July 31, 2008.

With this letter, Mitsubishi Heavy Industries, Ltd. ("MHI") transmits to the U.S. Nuclear Regulatory Commission ("NRC") a document entitled "Responses to Request for Additional Information No. 46-215 Revision 0."

Enclosed is the responses to 3 RAIs 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 the submittals. His contact information is below.

Sincerely,



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

1. Responses to Request for Additional Information No. 46-215 Revision 0

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

Contact Information

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Docket No. 52-021
MHI Ref: UAP-HF-08156

Enclosure 1

UAP-HF-08156
Docket No. 52-021

Responses to Request for Additional Information No.46-215 Rev.0

August 2008

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

8/29/2008

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

RAI NO.: NO. 46-215 REVISION 0
SRP SECTION: 13.03 - EMERGENCY PLANNING
APPLICATION SECTION: 13.3
DATE OF RAI ISSUE: 7/31/2008

QUESTION NO. 13.03-1

13.3-1: Subject: TSC Floor Space
[Basis: 10 CFR 50.47(b)(8), NUREG-0654 Table B-1 and Section B.7; NUREG-0696 Section 2.4]

- 1) Please provide more detail as to whether the floor space of at least 1875 square feet (approximately 75 square feet for each of at least 25 personnel) as described in Sections 2.10.1, 2.10.2, 7.5.1.6.1, and 13.3 of the DCD includes the space necessary to acquire, process, repair, maintenance, and service equipment, and/or includes the storage space necessary for plant records and historical data.
 - 2) Please explain the impact, if any, this additional space requirement may have to the TSC staff working space.
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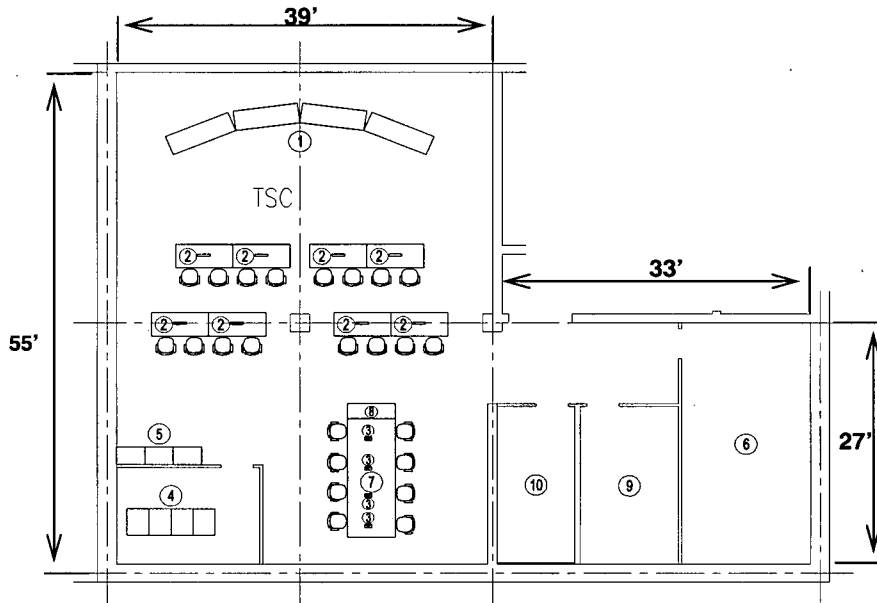
ANSWER:

The floor space and design of the US-APWR TSC considers the requirements of NUREG-0696. The NUREG requires;

- The TSC working space should be sized for a minimum of 25 persons. The minimum size of working space provided should be approximately 75 sq ft/person. Therefore, the minimum size of the TSC should be 1875 sq ft.
- A separate room should be provided for private NRC consultations, which is adequate for at least three persons.

The detail size and arrangement of the TSC is shown in the following figure. The main space of TSC is approximately 2145 square feet (39X55), which exceeds the minimum requirement of 1875 square feet. DCD Subsection 7.5.1.6.1 will be revised to explain that this space is sufficient to maintain and repair TSC equipment, and is sufficient for the storage of plant records and historical data.

In addition, the TSC includes kitchen and restroom facilities and another room for private NRC consultation. This area of the TSC is approximately 891 square feet (33X27).



	Contents
1	Large Display Panel
2	Plant Monitoring VDUs
3	Communication equipments (phone, facsimiles, etc.)
4	Display Processor Data Transmitter
5	Cabinet for plant records and historical data, etc.
6	NRC consultation rooms
7	Sufficient table and chairs for staffs
8	Printers/hardcopies
9	Kitchen
10	Rest room

Impact on DCD

The second paragraph of DCD Subsection 7.5.1.6.1 will be changed to incorporate the following:

“Adequate working space for the personnel assigned to the TSC at the maximum level of occupancy is approximately 75 sq ft/person. The TSC working space is sized for a minimum of 25 persons, including 20 persons designated by the licensee and five NRC personnel. The TSC arrangement drawing is shown in Figure 7.5-3. **The size and layout of TSC gives necessary space to maintain and repair TSC equipment, and is sufficient for the storage of plant records and historical data.**”

And the sixth dash of first bullet of DCD Section 13.3 will be changed to incorporate the following:

“The TSC working space is sized for a minimum of 25 persons including 20 persons designated by the licensee and five NRC personnel. **The size and layout of TSC gives necessary space to maintain and repair TSC equipment, and is sufficient for the storage of plant records and historical data.**”

MHI will incorporate this revision to DCD revision 2.

Impact on COLA

There is no impact on the COLA.

Impact on PRA

There is no impact on the PRA.

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

8/29/2008

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

RAI NO.: NO. 46-215 REVISION 0
SRP SECTION: 13.03 - EMERGENCY PLANNING
APPLICATION SECTION: 13.3
DATE OF RAI ISSUE: 7/31/2008

QUESTION NO. 13.03-1

13.3-2: Subject: TSC Power

[Basis: 10 CFR 50.47(b)(8), NUREG-0696 Section 2.8; Information Notice (IN) 2004-19]

1) Please provide more detail as to the backup power capabilities of the TSC. Specifically, to immediately resume data acquisition, storage, and display of TSC data if loss of the primary TSC power sources occurs and/or if the TSC becomes uninhabitable.

ANSWER:

The DCD Section 7.5.1.6.1 and Figure 7.5-3 show the detail of components and equipment used in TSC. It is required to supply power to equipment in TSC such as Large Display Panels, Computers and Visual Display Panels.

These are supplied power from the non-Class 1E ac 120V UPS units (N11 unit to N5 unit). Each UPS unit has two ac input power from non-Class 1E P1 and P2 ac 480V systems. If one ac input power is lost, UPS can keep supplying output power by remaining ac input power without interruption of power to loads. Even if both ac input power are lost, UPS unit can keep supplying output power by DC backup power from non-Class 1E dc 125V systems for 30 minutes without interruption of power to loads. Also, each UPS can receive the back-up ac power supply from AAC (alternate ac power source) under the LOOP condition. The detail of non-Class 1E ac 120V UPS unit and system is described in DCD Section 8.3.1.1.7.

Thus the TSC loads have enough power availability that they can keep their function such to control, monitor and record under all plant conditions.

Impact on DCD

There is no impact on the DCD

Impact on COLA

There is no impact on the COLA

Impact on PRA

There is no impact on the PRA

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SRP SECTION: 13.03 - EMERGENCY PLANNING
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QUESTION NO. 13.03-1

13.3-3: Subject: Decontamination Facility(s)

[Basis: 10 CFR 50.47(b)(11), 10 CFR 50, Appendix E, Subsection IV.E; Regulatory Guide (RG) 1.101]

1) Not mentioned in application. Please provide details as to the presence and availability of an onsite decontamination facility(s) for personnel, wounds, supplies, instruments, and equipment (i.e. location(s), handling of liquid waste, availability of portable systems, etc.). This information is required by 10 CFR 50.47(b)(11) and Subsection IV.E to 10 CFR 50, Appendix E.

ANSWER:

A Hot Shower Room is provided in the personnel contamination monitoring area in the Access Building at 3'-7" level for onsite decontamination of personnel. A First Aid Room is also provided in the same general area, next to the Health Physics Room. An equipment decontamination station is placed in the Hot Machine Shop at the basement level (-26'-4") of the Access Building. Service water is provided to various areas throughout the plant and is available for decontamination of instruments and small equipment items. The decontamination water from these facilities is drained to the Floor Drain S(?)ump and is forwarded to one of the Waste Holdup Tanks for processing.

Impact on DCD

The DCD will be changed to incorporate the following:

Add item G to Subsection 12.3.1.1.2 Decontamination Facilities

A Hot Shower Room is provided in the personnel contamination monitoring area in the Access Building at 3'-7" level for onsite decontamination of personnel. A First aid Room is also provided in the same general area, next to the Health Physics Room. An equipment decontamination station is placed in the Hot Machine Shop at the basement level (-26'-4") of the Access Building. Service water is provided to various areas throughout the plant and is available for decontamination of instruments and small equipment items. The decontamination water from these facilities is

drained to the Floor Drain Sump and is forwarded to one of the Waste Holdup Tanks for processing.

Also, add to Section 13.3 just prior to Subsection 13.3.1:

- **Other Emergency Facilities**

Personnel and Equipment decontamination facilities for normal operation are located in the Access Building and described in Subsection 12.3.1.1.2. These facilities would be used in emergency conditions as part of the site Emergency Plan.

MHI will incorporate this revision to DCD revision 2.

Impact on COLA

There is no impact on the COLA

Impact on PRA

There is no impact on the PRA

This completes MHI's responses to the NRC's questions.