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TOKYO, JAPAN

April 28, 2009

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-09225

Subject: MHI's Responses to US-APWR DCD RAI No. 295-2341 Revision 1

Reference: 1) "Request for Additional Information No. 295-2341 Revision 1, SRP Section: 18 - Human Factors Engineering, Application Section: 18.1.1.2 Applicable Plant Facilities," dated April 1st, 2009.

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. 295-2341 Revision 1."

Enclosed is the responses to 13 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,

Y. Ogata

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

Enclosure:

1. Responses to Request for Additional Information No. 295-2341 Revision 1

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

D081
NRO

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MHI Ref: UAP-HF-09225

Enclosure 1

UAP-HF-09225
Docket No. 52-021

Responses to Request for Additional Information No. 295-2341
Revision 1

April 2009

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

4/28/2009

US-APWR Design Certification

Mitsubishi Heavy Industries

Docket No. 52-021

RAI NO.:	**NO. 295-2341 REVISION 1**
SRP SECTION:	**18 - HUMAN FACTORS ENGINEERING**
APPLICATION SECTION:	**18.1.1.2 APPLICABLE PLANT FACILITIES**
DATE OF RAI ISSUE:	**4/1/2009**

QUESTION NO. 18-7

DCD section 18.1.1.2 indicates EOF design is the responsibility of the Site specific HFE team. The COL information item on this subject was deleted in revision 1 and there is not an ITAAC addressing HFE application to the EOF.

Please describe how the responsibility for applying HFE to the EOF is being tracked?

ANSWER:

The US-APWR design team is responsible for the EOF information that must be transmitted, and the site specific HFE team's design is limited to the site specific conditions, such as location, communications, meteorological restrictions, etc. The additional COL information requirement was deleted because this DCD section now describes the division of responsibility between the HFE team and the site specific HFE team, and this section is incorporated in the COLA by reference.

In order to clarify EOF tracking as ITAAC, the DCD Tier 1 subsection 2.9 Table 2.9-1 items 7k., will be modified to include EOF tracking.

Impact on DCD

The DCD Tier 1 subsection 2.9 Table 2.9-1 items 7k., will be modified as follows;

7k. A TSC and EOF exist where effective direction can be given and effective command control can be performed during an emergency.	7k. An inspection of the as-built TSC and EOF will be performed.	7k. An as-built TSC and EOF exist from which effective direction can be given and effective command control can be exercised during an emergency.

Please see the Attachment-1 page 2.9-14.

Impact on COLA

There is no impact on the COLA

Impact on PRA

There is no impact on the PRA

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RAI NO.:	**NO. 295-2341 REVISION 1**
SRP SECTION:	**18 - HUMAN FACTORS ENGINEERING**
APPLICATION SECTION:	**18.1.1.2 APPLICABLE PLANT FACILITIES**
DATE OF RAI ISSUE:	**4/1/2009**

QUESTION NO. 18-8

Emergency operations facilities are listed with the caveat "communications and information requirements only." Revision 1 provides some clarification in that it states that the content of the displays for the EOF/TSC are developed based on the task analysis process described in section 18.4 of the DC.

a. Is the same process applied to both the EOF and the TSC?

b. It appears that a graded approach is being applied to the EOF/TSC HFE design in that only the Task Analysis process is being used to develop EOF/TSC displays. Please explain the basis for this alternate approach to the NUREG-0711 program?

ANSWER:

a. The same process is applied to the EOF and the TSC.

b. The same approach as the NUREG-0711 program is applied to the process for EOF/TSC. However, processes other than the task analysis, such as the function allocation (FA) or the staffing, etc., is very clear and therefore needless to analyze for EOF/TSC.

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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RAI NO.: **NO. 295-2341 REVISION 1**

SRP SECTION: **18 - HUMAN FACTORS ENGINEERING**

APPLICATION SECTION: **18.1.2.2 HFE ORGANIZATIONAL PLACEMENT AND AUTHORITY**

DATE OF RAI ISSUE: **4/1/2009**

QUESTION NO. 18-9

In DCD Tier 2 section 18.1.2.2, the applicant provides a diagram illustrating the organization of the HFE Design Team. The diagram does not show how the HFE design team fits into the larger design team and the US-APWR project. The applicant states. "... the team has the authority and organizational placement to provide reasonable assurance that all its areas of responsibility are accomplished and to identify problems in the implementation of the overall plant design." This is a direct quote from the NUREG. There is no explanation of how it is accomplished.

Please provide additional information that explains how the criterion quoted above is accomplished.

NOTE: This subject is also addressed by RAI 18.0-9 from the topical report. The RAI response says, "The placement of the HFE Design Team Manager within the overall organization is defined in the HFE Program Implementation Procedure, which is a plant specific document....The plant specific documentation for the US-APWR is the HFE Program Implementation Procedure, described in Section 18.1.3.1 of the DCD...." The staff has not found the information that addresses this information in either the topical report or the DCD.

ANSWER:

The organization placement and authority of the HFE Design Team is controlled by the "Quality Assurance Program(QAP) Description for Design Certification of US-APWR (PQD-HD-19005)" for the US-APWR project.

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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RAI NO.:	**NO. 295-2341 REVISION 1**
SRP SECTION:	**18 - HUMAN FACTORS ENGINEERING**
APPLICATION SECTION:	**18.1.2.3.1 HFE DESIGN ORGANIZATION COMPOSITION**
DATE OF RAI ISSUE:	**4/1/2009**

QUESTION NO. 18-10

In DCD Tier 2 section 18.1.2.3.1, the applicant addresses HFE Design team composition. All expertise areas identified in Appendix A of NUREG-0711 are included with the exception of technical project management.

Please explain how technical project management expertise is addressed within the HFE design team composition.

ANSWER:

MHI will add technical project management as expertise areas for the HFE design team composition.

Impact on DCD

The DCD subsection 18.1.2.3.1, list of the technical disciplines of the HFE design team will be revised as follows:

- HFE
- **Technical project management**
- Systems engineering
- Nuclear engineering
- Instrumentation and control (I&C) engineering
- Architect engineering

- Plant operations
- Computer system engineering
- Plant procedure development
- Personnel training
- Systems safety engineering
- Maintainability/inspectability engineering
- Reliability/availability engineering

Please see the Attachment-1 page 18.1-6.

Impact on COLA

There is no impact on the COLA

Impact on PRA

There is no impact on the PRA

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RAI NO.:	**NO. 295-2341 REVISION 1**
SRP SECTION:	**18 - HUMAN FACTORS ENGINEERING**
APPLICATION SECTION:	**18.1.2.4 HFE ORGANIZATIONAL STAFFING**
DATE OF RAI ISSUE:	**4/1/2009**

QUESTION NO. 18-11

The DCD does not commit to minimum qualifications by degree and/or experience as suggested by the NUREG. While DCD Tier 2, section18.1.2.4 states that "professional experience requirements associated with a particular skill may be realized through the combined professional experience of two or more members of the HFE design team," there is not a statement of what the professional experience requirements are. The QA Plan did not contain clear guidance on professional experience. The reference to topical report section 5.1.2.2 lists areas of expertise that will be available on the HFE design team but again provides no commitment on minimum experience for these areas. The applicant states the alternative personal credentials may be accepted but does not state what these alternatives are.

Please address experience requirements as outlined in NUREG-0711 criterion 2.4.2(3) and (4)

ANSWER:

The overall control of the QAPD is common for all areas for the US-APWR project. The personal qualification for the HFE design personnel is also controlled by the "Quality Assurance Program(QAP) Description for Design Certification of US-APWR (PQD-HD-19005)", and does not deviate from the requirements outlined in NUREG-0711 criterion 2.4.2(3) and (4). Specific qualifications of the personnel engaged in each HFE program element are documented in the specific program element procedure and report. This is exemplified in the OER and Phase 1a V&V report already submitted.

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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RAI NO.:	**NO. 295-2341 REVISION 1**
SRP SECTION:	**18 - HUMAN FACTORS ENGINEERING**
APPLICATION SECTION:	**18.1.3.1 GENERAL PROCESS PROCEDURES**
DATE OF RAI ISSUE:	**4/1/2009**

QUESTION NO. 18-12

In DCD Section 18.1.3.1, the applicant provides a generic commitment that states the HFE review team will execute its responsibilities through processes that include each of the areas identified in the criterion. In effect this is a restatement of the criterion rather than identification of the actual processes the team will be using.

Please explain how the elements listed in NUREG-0711 criterion 2.4.3(1) are addressed in procedures.

Note: RAI 18-12 from the topical report identified a similar concern. The RAI response clarified responsibilities but did not address the central point of describing the process to be used. The response did indicate the details of this process are included in the HFE Program Implementation procedure but this HFE implementation procedure has not been submitted.

ANSWER:

The implementation plan for the US-APWR HFE design is described in the Topical Report "HSI System Description and HFE Process (MUAP-07007 Rev. 2)" Appendix C Phased Implementation Plan.

The procedures used in the above described process are documented separately for each HFE program element. The procedure for each program element is summarized in the report for that program element. This documentation method is exemplified by the Technical Report "U.S. Operator V&V Technical Report (Phase 1 V&V), MUAP-08297" which has been submitted.

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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RAI NO.:	**NO. 295-2341 REVISION 1**
SRP SECTION:	**18 - HUMAN FACTORS ENGINEERING**
APPLICATION SECTION:	**18.1.3.2 PROCESS MANAGEMENT TOOLS**
DATE OF RAI ISSUE:	**4/1/2009**

QUESTION NO. 18-13

In DCD section 18.1.3.2, the applicant states, "Tools and techniques to be utilized by the team to verify that they fulfill their responsibilities are identified." This is just a restatement of the NUREG criterion. The applicant did not describe any tools or techniques being used.

Please list and describe the process management tools that will be used.

Note: RAI 18-13 from the topical report identified a similar concern. The RAI response indicated the HFE Program Implementation Procedure describes all process management tools, including a Review Record Sheet and the HFE Issues Tracking database. The HFE Program Implementation procedure has not been submitted.

ANSWER:

MHI uses the WEB based HED (human engineering discrepancy) management tool to collect and resolve HEDs acquired in all phases for the US-APWR HFE design.

The main contents of the HED management tool are follows:

- HED Description
- Originator:
- Origination Date
- Originators Role
- Source:
- HSI Area
- Design Reference
- Significance
- Recommended Resolution
- Final Resolution
- Resolution Tracking (to completion)

The HED issues are shared and by the member of HFE design organization, and the face-to-face meetings with the members are held according to the schedule to resolve the issues. The resolution is documented in the HED management tool, and that tool is used to track to resolution through the HFE design process.

To exemplify this process, the collected HEDs from the OER program element and the Phase 1 V&V program element are described in the Topical Report and "U.S. Operator V&V Technical Report (Phase 1 V&V), MUAP-08297", and the resolutions will be described in the Topical Report "HSI Design" which will be submitted in June 2009.

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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Docket No. 52-021

RAI NO.:	**NO. 295-2341 REVISION 1**
SRP SECTION:	**18 - HUMAN FACTORS ENGINEERING**
APPLICATION SECTION:	**18.1.3.3 INTEGRATION OF HFE AND OTHER PLANT DESIGN ACTIVITIES**
DATE OF RAI ISSUE:	**4/1/2009**

QUESTION NO. 18-14

In DCD Tier 2, Section 18.1.3.3, the applicant restates the criterion without describing how the integration of design activities or the iteration of design is accomplished.

Please explain how the criterion will be addressed.

Note: RAI 18-14 from the topical report identified a similar concern. The applicant's response indicated the HFE Program Implementation Procedure contains this information. The implementation plan has not been submitted.

ANSWER:

The integration plan for the US-APWR HFE design is described in the Topical Report "HSI System Description and HFE Process (MUAP-070007 Rev. 2)" Appendix C Phased Implementation Plan.

MHI is planning to integrate the US-APWR HFE design by the related analyses and the Phased V&V activities.

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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RAI NO.:	**NO. 295-2341 REVISION 1**
SRP SECTION:	**18 - HUMAN FACTORS ENGINEERING**
APPLICATION SECTION:	**18.1.3.4 HFE PROGRAM MILESTONES**
DATE OF RAI ISSUE:	**4/1/2009**

QUESTION NO. 18-15

In DCD section 18.1.3.4, the applicant restates the criterion and indicates the topical report contains a relative schedule of HFE tasks showing relationships between HFE elements and activities, products and reviews. RAI18-15 from the topical report identified a significant lack of detail relative to this criterion and the applicant's response did not address the RAI other than to say that schedules and milestones are plant specific documents and that the US-APWR information had already been submitted to the NRC separately.

Please add or reference this material within the DC.

ANSWER:

MHI will add the reference to the Topical Report "HSI System Description and HFE Process (MUAP-070007 Rev. 2)", Figure 4.0-2, which shows the schedules and milestones for HFE activities.

Impact on DCD

The following paragraph will be added the DCD subsection 18.1.3.4.

The schedules and milestones are shown in the Reference 18-1 Figure 4.0-2.

Please see the Attachment-1 page 18.1-10.

Impact on COLA

There is no impact on the COLA

Impact on PRA

There is no impact on the PRA

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RAI NO.:	**NO. 295-2341 REVISION 1**
SRP SECTION:	**18 - HUMAN FACTORS ENGINEERING**
APPLICATION SECTION:	**18.1.3.5 HFE DOCUMENTATION**
DATE OF RAI ISSUE:	**4/1/2009**

QUESTION NO. 18-16

In DCD Tier 2, Section 18.1.3.5, the applicant restates the criterion. Documentation is neither identified nor described. RAI 18-16 from the topical report addresses a similar issue. The RAI response states that actual document commitments will be identified in plant licensing documentation. The DC does not contain this information.

Please add or reference this material in the DCD.

ANSWER:

Document control is common for all of the US-APWR project. The information is described in the Reference 18.1-6 "Quality Assurance Program (QAP) Description for Design Certification of US-APWR (PQD-HD-19005)". The specific documents to be generated for each HFE program element are described within each program element section of the DCD. For example, the OER program element describes the OER report. The schedule for generating each program element is described in the Topical Report "HSI System Description and HFE Process (MUAP-070007 Rev. 2)", Appendix C Phased Implementation Plan

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

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

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RAI NO.:	**NO. 295-2341 REVISION 1**
SRP SECTION:	**18 - HUMAN FACTORS ENGINEERING**
APPLICATION SECTION:	**18.1.3.6 SUBCONTRACTOR HFE EFFORTS**
DATE OF RAI ISSUE:	**4/1/2009**

QUESTION NO. 18-17

In DCD Section 18.1.3.6, the applicant restates the criterion. The topical report as amended by the response to RAI 18-17 provides sufficient information to address this criterion but the topical report is not referenced.

Please add or reference this material to the DCD.

ANSWER:

MHI will add the Topical Report for the reference to the Topical Report.

Impact on DCD

The DCD subsection 18.1.3.6 will be revised as follows:

> HFE requirements are included in each subcontract for HFE support and the subcontractor's compliance with HFE requirements is periodically verified. HFE work performed by subcontractors is controlled as described in References 18.1-1 and 18.1-6.

Please see the Attachment-1 page 18.1-10.

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

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Docket No. 52-021

RAI NO.:	**NO. 295-2341 REVISION 1**
SRP SECTION:	**18 - HUMAN FACTORS ENGINEERING**
APPLICATION SECTION:	**18.1.4 HFE ISSUES TRACKING**
DATE OF RAI ISSUE:	**4/1/2009**

QUESTION NO. 18-18

In DCD section 18.1.4, the applicant states that the HFE issues tracking system is integrated into the existing tracking system used for the US-APWR design effort as a whole. The other elements of this criterion are restated as commitments that will be followed. The information provided serves the purpose of providing Program level commitments but is insufficient to complete an implementation plan level review.

Please provide sufficient details of the HFE issues tracking system to demonstrate how the NUREG criteria 2.4.4(1)-(4) are implemented.

Please verify the DCD to "reference 18.1-1 subsection 5.1.3" is correct. We believe it should be subsection 5.1.4.

Is the existing tracking system part of the corrective action process described in the Quality Assurance program description (PQD-HD-19005)?

Note: RAI 18-18 requested a description of the process and a description of how the process will ensure problems are addressed in a timely fashion. The applicant's response added information on HFE design team responsibilities for tracking issues but did not provide sufficient detail to demonstrate how the NUREG criteria are implemented.

ANSWER:

The corrective action process described in the Quality Assurance program description (PQD-HD-19005) is invoked after the HSI has completed all phases of the HFE design process. It is also invoked if a design phase identifies an error that should have been identified in a previous design phase. When a corrective action is identified, the HED issues tracking system is used to allow more detailed tracking through the HFE design process. The two systems are linked by tracking number references.

Impact on DCD

The last paragraph of the DCD subsection 18.1.4 will be revised as follows:

> The process through which the HFE design team executes its responsibilities is described in Reference 18.1-1 Subsection **5.1.4.**

Please see the Attachment-1 page 18.1-10.

Impact on COLA

There is no impact on the COLA

Impact on PRA

There is no impact on the PRA

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RAI NO.:	**NO. 295-2341 REVISION 1**
SRP SECTION:	**18 - HUMAN FACTORS ENGINEERING**
APPLICATION SECTION:	**18.1.5 HFE TECHNICAL PROGRAM**
DATE OF RAI ISSUE:	**4/1/2009**

QUESTION NO. 18-19

The information presented in the DCD is similar to what is provided in the topical report. RAI 18-24 from the topical report identifies additional information needed to describe the static and dynamic models being used and more detail on simulator integration into the design process.

Please add or reference this material in the DCD.

ANSWER:

Static and dynamic models are used during verification and validation activities. The models used during Phase 1a V&V are described in the Phase 1a V&V Report (U.S. Operator V&V Technical Report (Phase 1 V&V), MUAP-08297). Static and dynamic models will be similarly described in the Phase 1b V&V report, which will be included in HSI design technical report, MUAP-09xxx and submitted to the NRC by June 30. Static and dynamic models used during the Phase 2b verification and validation activities will be described in the Phase 2b V&V report.

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

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

Table 2.9-1 Human Factors Engineering Inspections, Tests, Analyses, and Acceptance Criteria (Sheet 7 of 9)

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
7i. A remote shutdown console (RSC) is provided to achieve safe shutdown in the event of evacuation of the MCR. The RSC includes operator workstation(s) from which operators could perform remote shutdown operations.	7i. An inspection of the as-built RSC will be performed.	7i. To achieve safety shutdown in the event of MRC evacuation, the as-built RSC has Operator workstation(s) from which operators could perform shutdown operations. These workstations have the same functions as the MCR operator console for conducting safe shutdown. ~~The as-built RSC provides the capability for the operator to achieve safe shutdown.~~
7j. Manual control and monitoring capability is installed at the LCSs (only manned on demand) for the following functions: – On-line testing, radiological protection activities, and required chemical monitoring supporting technical specifications – Maintenance required by technical specifications – Emergency and abnormal response	7j. An inspection of the as-built local control and monitoring functional capability required for the as-built LCSs will be performed.	7j. The as-built LCSs exist at selected locations throughout the plant for the following required functions: – On-line testing, radiological protection activities, and required chemical monitoring supporting technical specifications where HSI is not provided in the MCR. – Maintenance required by technical specifications where HSI is not provided in the MCR. – Emergency and abnormal response for events where MCR HSI cannot be credited
7k. A TSC and EOF exists where effective direction can be given and effective command control can be performed during an emergency.	7k. An inspection of the as-built TSC and EOF will be performed.	7k. An as-built TSC and EOF exists from which effective direction can be given and effective command control can be exercised during an emergency.
7l. Provisions exist for communications among the MCR, TSC, and EOF; and between the plant, the state and local emergency operations centers, and the field assessment teams; and the appropriate NRC Regional Office Operations Center.	7l. An inspection of the as-built communications functions will be performed.	7l. The as-built functions are made for communications among the MCR, TSC, and EOF; and between the plant and the state and local emergency operations centers, and the field assessment teams; and the appropriate NRC Regional Office Operations Center.

- QA Organization

  The QA organization conducts the QA in accordance with the QA plan (Reference 18.6-1), which includes conformance to the supplier's overall QA program.

18.1.2.3 HFE Organizational Composition

This section describes the organizational composition of the US-APWR HFE design team.

18.1.2.3.1 HFE Design Organization Composition

The HFE design team conducts all design activities for HSIs. The HFE design team consists of a multi-disciplinary technical staff. The team is under the leadership of an individual experienced in the management of the design and operation of complex control technologies. The technical disciplines of the HFE design team include the following:

- HFE
- Technical project management
- Systems engineering
- Nuclear engineering
- Instrumentation and control (I&C) engineering
- Architect engineering
- Plant operations
- Computer system engineering
- Plant procedure development
- Personnel training
- Systems safety engineering
- Maintainability/inspectability engineering
- Reliability/availability engineering

The term "HFE design team" is used in a generic sense to refer to the personnel who are contributors for HFE design. Many of the technical disciplines listed above are assigned to support HFE on a "matrixed" basis, but report organizationally through other technical

18.1.3.4 HFE Program Milestones

HFE milestones are identified so that evaluations of the effectiveness of the HFE effort can be made at critical checkpoints and the relationship to the integrated plant sequence of events is shown. A relative program schedule of HFE tasks showing relationships between HFE elements and activities, products, and reviews has been developed (Reference 18.1-1). The schedules and milestones are shown in the Reference 18-1 Figure 4.0-2.

18.1.3.5 HFE Documentation

Controlled HFE design documents are identified and briefly described, and the procedures for retention and access of these documents are defined. HFE document control is as described in Reference 18.1-6.

18.1.3.6 Subcontractor HFE Efforts

HFE requirements are included in each subcontract for HFE support and the subcontractor's compliance with HFE requirements is periodically verified. HFE work performed by subcontractors is controlled as described in Reference 18.1-1 and 18.1-6.

18.1.4 HFE Issues Tracking

The HFE issues tracking system is integrated into the existing tracking system used for the US-APWR design effort as a whole. The HFE issues tracking system is available to address human factors issues that are (a) known to the industry and (b) identified throughout the HFE life cycle of HSI design, development, and evaluation.

The HFE issues tracking system provides a mechanism to address the items that need to be addressed later in the project and must not be overlooked. The HFE issue tracking system provides assurance that HFE issues are tracked from identification until the potential for negative effects on human performance has been reduced to an acceptable level.

The HFE issues and concerns that are not immediately resolved are entered in the HFE issues tracking system. The HFE design team members are responsible for issue logging, tracking, resolution, and resolution acceptance. Human performance issues that are identified as human engineering discrepancies (HEDs) are tracked and dispositioned as required by Reference 18.1-6.

Each action taken to eliminate or minimize an HFE issue or concern is documented in detail. Both the HFE design team's final resolution of the HFE/HSI issue and the resolution's acceptance are documented.

The process through which the HFE design team executes its responsibilities is described in Reference 18.1-1 Subsection 5.1.~~3~~4.