

Meeting Minutes

Subject: Third SONGS RSG Executive Oversight Meeting  
Time/Venue: 08:00-15:00, August 16, 2005 at SONGS  
Attendees: Edison: { }  
{ }  
MHI: { }

Minutes:

1. Status of MHI Work Scope

{ } presented the project status and the following is a summary of the presentation and discussion.

1) Fabrication related

- Tubesheet, Extension Ring, Lower Shell, Middle Shell and Transition Cone for Unit-2A(2E089) have been delivered to MHI Kobe and are in fabrication on schedule.
- Tubesheet for Unit-2B(2E088) has been delivered to MHI Kobe and is in fabrication and on schedule.
- The next major milestone for Tubesheet manufacturing is tube hole drilling and is scheduled to begin January 2006.
- { } raised the issue of sudden improvement in the fabrication schedule without advanced warning and the possible inability of Edison/MHI to take advantage of that improvement without compromising quality. MHI was requested to look at providing early start dates in their schedule so both parties could plan better.

2) Engineering related

- Engineering Drawings were slightly behind schedule, but additional resources have been added and the work is back on schedule.
- Focusing on resolving issues on status 2 drawings and moving them to status 1. Both Edison and MHI are devoting significant effort to this task.

3) Material procurement related

- Issuance of Purchase Orders to MHI's subcontractors is on schedule.

2. Upcoming Significant Work Activities

- { } presented the overall project schedule for next three months and the manufacturing procedure by video.

- Tubing Pre-production Qualification (PPQ) is on going and tubing production will begin January 2006.

### 3. MHI Quality Performance

- { } presented that MHI quality performance and explained that the performance has improved since Edison's QA surveillance in May.
- { } provided MHI with "Edison's Assessment of MHI Performance" and stated that MHI's activities have been improved, but there are still improvement opportunities. He noted work document deficiencies and not addressing issues in a timely manner as examples of improvement opportunities.
- { } pointed out that, although fabrication in the Kobe facility is just starting, there are indicators that compliance with procedures/processes may not be happening as Edison would expect and as MHI's QA Program requires. MHI needs to look at this carefully to ensure the job starts well and doesn't have the problems that MHI engineering experienced initially.
- { } stated that it was critically important to improve performance and MHI is requested to make sure further improvement continues. He further stated that verbatim compliance with processes/procedures is a fundamental precept.
- { } replied that MHI would continue their effort for improvement of work quality.

### 4. Issues / Concerns

#### 1) RCS Flow Rate

- { } presented the present design plan and proposed target rate, { }%, through Scale Model Test Results and Loop Flow Analysis Results by MHI and { }
- Edison expressed concern regarding the design features of certain nozzle configurations.
- Edison and MHI discussed this idea and further discussion will take place in the Design Review Meeting later this week.

#### 2) AVB design

- { } presented the status and schedule for the Edison/MHI AVB team activities since the last executive meeting.
- { } requested an additional Technical Discussion Meeting in September or the beginning of October in California.
- Further detailed discussion will take place in the Technical Discussion Meeting

later this week.

- The Design Review was proposed to be delayed from September 12 to October 17.

### 3) Tubesheet Drilling

- { } presented MHI's experience in a former project, improvement schedule and the resolution plan.
- { } indicated that Edison would not accept tool marks in the holes. This represents an expansion of the crevice depth which Edison/MHI worked very hard to keep to tight tolerances and a potential qualification issue (e.g., leakage) under accident conditions. MHI was requested to provide a detailed plan on how they would avoid tool marks and to provide a repair process if tools marks were created. These items will be explicitly covered in the Readiness Review for Tubesheet drilling.
- { } stated that he will work closely with his manufacturing management to properly address this issue.
- Edison and MHI discussed potential causes and MHI will continue improvement action.

### 4) PWHT for Closure Welds

- { } presented the Purpose, Scope and Plan of PWHT for channel head to tube sheet weld and final closure weld.
- For Tube Dinging, MHI will evaluate temperature distribution result by analysis and dinging mechanism/criteria by test and analysis, then confirm that TSP rotating angle is smaller than dinging criteria.
- For Tube-Tubesheet joint strength and leak tightness, MHI will perform Pullout Strength Test and Leak Tightness Test by using mockup, and confirm Pullout Strength and Leak Tightness.

### 5) MHI Engineering and Fabrication Organization

- { } presented the Organization Change of MHI Kobe, Nuclear Steam Generator Shop was newly established, and SONGS project team's new regional working place.
- { } stated that this new organization was positive.
- { } pointed out that the working relationship between Edison and MHI engineering is very effective with good communication. The same cannot be said for the working relationship between Edison and MHI fabrication. This latter

relationship and communication needs to be improved.

6) Readiness Review

- { } explained that the first trial of the Readiness Review Process was held on Tubesheet Machining and conducted in Japanese. Edison's residents attended the meeting. On the next day, the summary of the meeting results was explained to Edison's residents in English.
- { }, who is a resident manager and attended the last meeting, stated that it was effective even if in Japanese and, for the next Readiness Review, the date shall be scheduled early enough to prevent having to rush through the process. In addition, Edison's participation will be clearly defined and will not be part of the meeting conducted in Japanese.
- The detailed Readiness Review procedure will be finalized by MHI prior to the next Readiness Review.

5. Action Item

- 1) MHI to continue to improve Quality based on Edison's evaluation.
- 2) MHI and Edison to continue to discuss and to fix the target RCS flow and its condition including the design of primary Inlet Nozzle.
- 3) MHI to set an additional design team meeting for AVB design between September 14 and October 17, 2005.
- 4) MHI and Edison to continue study of AVB design and fix its conceptual design including end attachment design in October 2005.
- 5) MHI to continue study and provide corrective actions for improvement of the Tubesheet Drilling issue.
- 6) MHI to provide a procedure for the Readiness Review Meetings (for Edison approval) by the end of August 2005.
- 7) MHI to maximize clad thickness margin for future increase of RCS Flow as a target.

6. Next Executive Oversight Meeting:

#4: December 1, 2005 (at MHI Kobe)

Minutes of Meeting END