

Agenda

American Petroleum Institute

**COMMITTEE ON REFINERY EQUIPMENT  
RISK-BASED INSPECTION USER GROUP**

Wednesday, February 23, 2005; 1:00 p.m. – 5:00 p.m.

Thursday, February 24, 2005; 8:30 a.m. – 12:00 p.m.

Marriott Greenspoint  
Houston, Texas

J. T. Reynolds, Chairman

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|---|---------------------|
| <b>1. OPENING OF USERS GROUP MEETING/INTRODUCTIONS</b>    | J. Reynolds         |
| <b>2. ROSTER/ATTENDANCE SHEET</b>                         | R. Goodman          |
| <b>3. APPROVAL OF AGENDA</b>                              | J. Reynolds         |
| <b>4. APPROVAL OF AUGUST 18-19, 2004, MEETING MINUTES</b> | J. Reynolds         |
| <b>5. SOFTWARE ISSUES</b>                                 |                     |
| A. Software Project Plan for 2005                         | L. Kaley            |
| B. Software Validation Testing                            | L. Kaley            |
| C. Software Working Group Update                          | M. Geisenhoff       |
| D. Software Training Schedule                             | L. Kaley            |
| <b>6. PROJECT TIMELINE REVIEW</b>                         | L. Kaley            |
| <b>7. DAMAGE/EQUIPMENT MODULE STATUS (Attachment)</b>     | L. Kaley<br>H. Mead |
| <b>8. APPROVAL OF NEW PROPOSALS</b>                       | J. Reynolds         |
| <b>9. CONSEQUENCE MODELS</b>                              | P. Henry            |
| A. New Consequence Modeler Update                         |                     |
| B. PRD Consequence Presentation                           |                     |
| <b>10. BRD UPDATE</b>                                     | L. Kaley            |
| <b>11. RBI USER EXCHANGE DISCUSSION</b>                   |                     |
| Saudi Aramco Ver. 5.0 RBI Studies                         | M. Al-Gahtani       |
| <b>12. NEW BUSINESS</b>                                   | All                 |
| <b>13. PROJECT TIMELINE REVIEW</b>                        | L. Kaley            |
| <b>14. SCHEDULE NEXT MEETING</b>                          | J. Reynolds         |
| <b>15. ADJOURN</b>  |                     |

### Damage/Equipment Module Status Sheet

Pri.	Module	581 Appdx.	Program. <sup>1</sup> Funded?	Respon.	Draft to TWG	Issue Ballot	Return Ballot	Comment Resolution	Comments
1	Storage Tanks	O	Y	E <sup>2</sup> G	11-1-04	2-17-05	4-20-05	6-21-05	The module is being re-written by Mike Conley and Dave Osage during programming will be balloted in its entirety. The reference information included in the previous write-up will be added as an appendix to the module and balloted with the BRD.
2	HE Bundles	S	Y	E <sup>2</sup> G	8-1-04	Complete	3-14-05	5-1-05	The current write-up reads like a software user manual and must be re-written to in a format that is appropriate for the BRD. The working group will revise and review the document before re-ballot. Ballot 581-10-05 issued on 1-26-05.
3	External Damage	N	N	TWG	8-1-04	Complete	4-18-05	7-1-05	Ballot changes only. Ballot 581-14-05 issued 2-14-05
4	Consequence Modeler	U	Y	E <sup>2</sup> G	2-1-05	TBD	TBD	TBD	Fund review by outside consultants.
5	PRD	P	Y	E <sup>2</sup> G	8-1-04	Complete	1-28-05	3-15-05	Ballot 581-09-04 issued on 11-29-04.
6	HTHA	I	Y	TWG	1-1-05	4-1-05	5-1-05	8-1-05	CC 941 TG (users only). The HTHA module yields potentially non-conservative results for C-1/2 Mo materials in the current documented module. A proposal from MPC has been developed to improve the current module with learnings and information developed for API.
7	Furnace Tubes	J	Y	E <sup>2</sup> G	1-1-05	4-1-05	5-1-05	8-1-05	The module must be reworked to merge an API 530 with Omega to achieve valuable discrimination between furnaces. The working group will develop, review, and revise before a ballot is required.
8	Cooling Water	?	Y	TWG	Complete	Complete	3-14-05	5-1-05	Re-ballot entire module This module has been revised based on a previous ballot. The revisions will require re-ballot by the group. Ballot 581-11-05 issued on 1-26-05

<sup>1</sup> Steering Committee decided programming can commence when the draft write-up has been approved for balloting by the TWG. The TWG can hold programming in the event they are not confident the ballot will pass. Having a programmed version facilitates balloting of the module.

Pri.	Module	581 Appdx.	Program. <sup>1</sup> Funded?	Respon.	Draft to TWG	Issue Ballot	Return Ballot	Comment Resolution	Comments
9	Soil/Underground	?	Y	TWG	Complete	Complete	Complete	Complete	Balloting process complete. The module write-up is complete and all ballot comments resolved. This module is ready for programming into the software based on direction from the working group.
10	Boilers	T	N	TWG	Complete	Complete	3-28-05	6-1-05	There were not enough responses from the previous ballot. Comments have been received from Alston Power and the TGW will review to determine if changes are required. Ballot 581-12-05 issued on 2-3-05.
11	Creep	R	N	E <sup>2</sup> G	1-1-05	4-1-05	4-1-05	7-1-05	The module will be revised based on data presented at the October PVRC conference on the Omega model. The working group will develop and review a document for ballot.
12	Thermal Fatigue	Q	N	E <sup>2</sup> G	1-1-05	4-1-05	4-1-05	7-1-05	It was decided the current module is too broad and generic. It will be re-written with a new decision tree and will be merged with the mechanical fatigue. The working group will develop and review a document for ballot.
13	Liners	M	N	TWG	1-1-05	TBD	TBD	TBD	Is ballot required? This module needs an update to include thermal spray liners and address question raised by users. In addition, a liner inspection effectiveness table will need to be developed in order to include Liner considerations in the inspection planning module.
14	HIC/SOHIC	H	N	TWG	1-1-05	TBD	TBD	TBD	Is ballot required?
15	Amine Corrosion/ Cracking	G	N	TWG	1-1-05	TBD	TBD	TBD	Is ballot required? On hold; must compare to RP 945 new edition.
16	Acid/Sour Water	Z	Y	TWG	9-1-04	Complete	3-7-05	5-1-05	Re-ballot entire module to BP, Shell, & ChevronTexaco only. The module has been revised to resolve the negative from a previous ballot. Shell will review the document changes and a re-ballot will be done on that revision. Ballot 581-13-05 issued on 1-27-05.

<b>Pri.</b>	<b>Module</b>	<b>581 Appdx.</b>	<b>Program.<sup>1</sup> Funded?</b>	<b>Respon.</b>	<b>Draft to TWG</b>	<b>Issue Ballot</b>	<b>Return Ballot</b>	<b>Comment Resolution</b>	<b>Comments</b>
17	CO <sub>2</sub>		N	TWG	1-1-05	2-1-05	4-1-05	7-1-05	Re-ballot entire module to BP, Shell, Dow & ChevronTexaco only. This model was revised based on the NORSOK model. A comparison of predicted corrosion rates based on the model is being compared to laboratory test rates by Users. Since most UG members do not have experience with this damage mechanism, the ballot will be sent to only to the following members: ConocoPhillips; ChevronTexaco, BP Saudi Aramco, and Shell.
18	NAC/Sulfidation		N	TWG	1-1-05	TBD	TBD	TBD	Ballot with BRD.
19	Sour Water	G	N	TWG	1-1-05	TBD	TBD	TBD	Is ballot required? H. Mead to talk with D. Horvath to determine if info from JIP is needed.
20	Sulfuric Acid	G	N	E <sup>2</sup> G	1-1-05	TBD	TBD	TBD	Ballot with BRD.