

Distribution Date:
April 18, 2005

Minutes
American Petroleum Institute
COMMITTEE ON REFINERY EQUIPMENT
RISK-BASED INSPECTION USER GROUP
February 23-24, 2005
Marriott Greenspoint, Houston, TX

ATTENDEES:

J. T. Reynolds, CHAIRMAN – Shell	P. A. Henry – Equity Engineering
M. Al-Gahtani – Saudi Aramco	L. C. Kaley – Equity Engineering
G. C. Alvarado – Equity Engineering	P. McAndrew – Sunoco
R. Bernardes – PETROBRAS	B. A. Otis – Shell
J. Britton – DNV	S. Pinca – Istituto Italiano della Saldatura
C. Brooke – Shell	B. D. Ray – Marathon Ashland
D. L. Bryan – Marathon Ashland	C. Roberts – Total Petrochemicals
S. Campbell – Irving Oil	R. Sitton – Berwanger
K. Carnahan – Suncor Energy	A. H. Smith – Petro-Canada
A. Correia da Cruz – ISQ	K. J. Smith – ConocoPhillips
K. L. Doggett – ConocoPhillips	M. Smith – Equity Engineering
R. L. Downie – Lyondell-Citgo	C. Tinkle – Total Petrochemicals
C. B. Eckstein – PETROBRAS	K. L. VanLoon – ConocoPhillips
E. Franz – Ashland Chemical	H. D. S. Werneck – PETROBRAS
R. Goderie – Dow	C. White – Equity Engineering
M. Geisenhoff – Flint Hills Resource Group	T. Wylie – Shell
R. A. Goodman – API	

1. OPENING AND INTRODUCTIONS

John Reynolds called the meeting to order at 1:00 p.m. The meeting attendance sheet is attached as Appendix I.

2. APPROVAL OF AGENDA

The Software Working Group Update (Item 5C) was moved to beginning of Item 5. The meeting agenda (Appendix II) was approved as amended.

3. APPROVAL OF MINUTES FROM PREVIOUS MEETING

The committee approved the minutes from the August 18-19, 2004, meeting as distributed. These minutes can be found on the API RBI website at:
<http://committees.api.org/standards/cre/scrbi/mtginfo/mtghm.html>.

4. SOFTWARE ISSUES

- A. Software Working Group Update – Mark Geisenhoff provided an update on the activities of the SWG. The SWG concluded that the current work plan and schedule were too aggressive and it would benefit the entire User Group (UG) to freeze the software at its current capability. This will allow the users to become familiar with the current software capabilities before additional modifications are made. Several enhancements for the production release of the software were identified by the SWG and are listed in their report. The group approved the decisions made by the SWG and endorsed the inclusion of SWG report in these minutes as Appendix III.
- B. Software Project Plan for 2005 – Lynne Kaley covered the revised project plan for software development (see Appendix IV).
- C. Software Validation Testing – Lynne Kaley presented the findings from of a validation study that compared the results between software versions 3.3.3 and 6.01 (see Appendix V). The major conclusions/recommendations are:

1. E2G is comfortable with the V6.01 probability, consequence, and risk calculations.
2. The new consequence modeler can be more conservative than the original version.
3. The Inspection Planning recommendations are reasonable with the exception of a high probability of failure
4. Adjustments will be necessary with the new ar/t calculation when the equipment corrosion allowance is less than 25% of the furnished thickness.

Testing on additional software functions is required and E2G will continue validation studies on a hydrocracker, HF alkylation, chemical plant, and refining unit, with a target completion date of May 1, 2005.

- D. New Software Work Proposals – E2G presented two proposals for new software development to perform additional validation testing, create a synchronization tool, import/export spreadsheet tool, and a browser function.

ACTION: The User Group approved these proposals for new software development.

- E. Software Training Schedule – The next advanced software training will be held on August 30-31, 2005, before the User Group meeting scheduled for September 1, 2005.

ACTION: Lynne Kaley will distribute criteria on what is constitutes an “advanced” user.

5. TECHNICAL WORKING GROUP

Tom Wylie presented the status of the damage and equipment modules currently under revision or development. The modules currently out for ballot include: HE Bundles, External Damage, PRD, Cooling Water, Soil/Underground, and Boilers. See Appendix VI for more detail on the status of each individual module.

6. BRD (API 581) UPDATE

The User Group approved the hiring of a master editor to perform a thorough review of the API 581 before balloting the document. Because of the size and complexity of the document, the group also decided to ballot the BRD in sections over a period of time. The goal to begin balloting is the end of 2005.

ACTION: The Steering Committee will meet in mid-May to review a list of candidates and select a contractor to perform the review.

7. CONSEQUENCE MODELS

A. New Consequence Modeler Update – Phil Henry presented an update on the progress of the new consequence modeler (see Appendix VII). Phil also raised the issue of adding new fluids to the consequence model to make the software more marketable to the chemical industry.

ACTION: Phil Henry will develop a form to distribute to the companies to provide the fluid properties to E2G.

ACTION: E2G will develop a proposal for the addition of these additional fluids to the software.

B. PRD Consequence Presentation – Phil Henry presented an update on the progress of the new consequence modeler (see Appendix VIII).

8. RBI USER EXCHANGE DISCUSSION

Moraya Al-Gahtani presented the results of RBI studies performed by Saudi Aramco using V5.0 of the software (see Appendix IX).

9. NEXT MEETING

The RBI Steering Committee will meet on August 3-4, 2005 at the TIEC Training Center in Houston TX. The next meeting of the RBI user group will be held on August 31 – September 1, 2005, in Houston, TX. The location of this meeting will be determined at a future date.

10. ADJOURNMENT

Having no additional business, the meeting was adjourned at 3:10 p.m.

Respectfully submitted,



Roland A. Goodman
goodmanr@api.org