REPORT

of the
Meetings of

API SUBCOMMITTEE ON DRILLING WELL CONTROL SYSTEMS
(SC 16)

at the
2001 Standardization Conference
of the
Upstream Department
American Petroleum Institute

Hyatt Regency Hotel
Calgary, Alberta, Canada
June 25 - 29, 2001

David Tannich, Chair
Joe Roche, Secretary

AMERICAN PETROLEUM INSTITUTE
Upstream Department
1220 L Street, NW
Washington, DC 20005
Phone: (202) 682-8000
Fax: (202) 962-4797
The following meetings are scheduled during the conference:

1. **Task Group on Marine Drilling Risers (TG 4)**
   Monday, June 25, 2001
   1:00PM – 5:00PM
   Paul Stanton, Chair

2. **Task Group on Control Systems for Drilling Well Control Equipment (TG 2)**
   Tuesday, June 26, 2001
   8:00AM – 12:00 Noon
   Joe Roche, Chair

3. **Subcommittee on Drilling Well Control Systems (SC 16)**
   Wednesday, June 27, 2001
   8:00AM – 12 Noon
   David Tannich, Chair
COMMITTEE 3: SUBCOMMITTEE 16

DRILLING WELL CONTROL SYSTEMS

Wednesday, June 27, 2001, 8:00 a.m.
Imperial 7 Room, Hyatt Regency Calgary Hotel, Calgary, Alberta, Canada

Chairperson: J. David Tannich

Introduction

The Chairman called the meeting to order and welcomed the group. Introductions were made, and the agenda for the meeting was presented. Regrets on behalf of Joe Roche, our Subcommittee Secretary, were extended. Minutes from last year’s Standardization Conference in Los Angeles were reviewed and accepted without change.

ECS Chair Jim Heimer presented SC16 Chair David Tannich the API Citation for Service award.

Task Group Reports

1. Paul Stanton, Chairman of TG 4 on Marine Drilling Risers, was called upon to report on the recent progress of his Task Group.

   See attached minutes from the TG 4 meeting for details.

2. TG 1 on Choke and Kill Systems, chaired by John McCaskill, did not meet during this Standardization Conference. Tannich gave an informal report on the progress of the C&K Task Group, which has been meeting on a frequent basis.

3. TG 5 on Well Intervention Well Control did not meet during this conference, but TG Chair Alex Sas-Jaworsky presented a progress report on the TG's activities during the past year.

4. David Tannich, filling in for Joe Roche, Chairman of TG 2 on BOP Control Systems, provided the progress report for TG 2.

   See attached minutes from the TG 2 meeting for details.

New Work Items (NWIs)

There were no API NWIs presented to the Subcommittee for consideration.

The SC moved, seconded and unanimously approved a motion to submit ISO NWIs for API Specifications 16C and 16D when the maturity of those documents merits that
action. It is anticipated that submission of an ISO NWI for Spec 16D will be submitted first and that it will be initially circulated at the Draft International Standard (DIS) level. A Projects Leader will need to be identified for each document. In addition, since ISO policy requires that five TC67 P-member countries must participate for the projects to be viable, SC members were encouraged to identify specific individuals that might be tapped to assist in the ISO process.

**Old Business**

There were no pending action items from the last SC16 meeting.

**ISO TC 67/SC 4/WG 2 Activity**

Tannich summarized the current status of the three SC 16 documents currently working their way through the ISO system: Spec 16A (ISO 13533 – the Final Draft International Standard has been submitted to Geneva for international circulation), RP 16Q (ISO 13624 – frozen pending incorporation of results from DeepStar's deepwater riser project) and Spec 16R (ISO 13625 – submitted to Geneva as a Draft International Standard).

**New Business**

Ken Fischer, Vice President of Operations for the IADC, briefed SC16 members on the IADC underbalanced operation (UBO) work effort. He indicated that work plans included the preparation of IADC document(s) for UBO recommended practices and rotating BOP equipment specifications. Given the API's stewardship of documents similar to those planned by IADC, Ken wanted to know if our group was perhaps interested in some kind of cooperative effort. Sid Ruiz participates in the IADC work and spoke in favor of SC16 involvement. Further discussion indicated SC support for standards in the UBO arena. No specific action items emerged from the discussion.

**Review of Action Items**

Submit ISO NWIs for Specs 16C and 16D when the timing is appropriate.

**Adjournment**

There being no further business brought before the SC, the meeting adjourned at 11:45 a.m.
List of Meeting Attendees
Subcommittee 16 on Drilling Well Control Systems
78th API Summer Standardization Conference
Calgary, Canada
27 June 2001

Kermit Batey                        Hose-Tex
Dan Becker                         Marine Drilling
Barry Biddy                        Hose-Tex
Laura De Jesus                     Hydril Company
Noorali Dhamani                    ABS Americas
Ken Fischer                        IADC
Robert Funderburg                  ABB Vetco Gray
Norman Glasson                     Hose-Tex
Shafiq Khandoker                   Hydril Company
Paul Mizerak                       Stewart & Stevenson
David O'Donnell                    Varco International
Bruce W. Reynolds                  Chevron
Ron Robertson                      Wood Group Pressure Control
Sid Ruiz                           MI
Alex Sas-Jaworsky                  SAS Industries, Inc.
Conrad Smith                       Conrad Smith Consulting
Paul Stanton                       CSO Aker Engineering
David Tannich                      Cudd Well Control
Robert H. Taylor                   Marine Drilling
Brian Wright                       CAD Oilfield
The Task Group reviewed Draft 11 of API Spec 16F and proposed the following changes:

Section 4.2.5 - Line 3. Replace maximum temperature with maximum fluid temperature.

Paragraph 5.9.2. Robert Taylor to clarify.

Section 5.13. Tim Haeberle to review API Spec 6A and API Spec 16A and propose a Welding section for 16F.

Section 6.3.3. Dave O'Donnell to investigate why both ASME B31.3 and ASME 3.1.1 are referenced.

Section 6.7.1. Delete last sentence.

Section 6.8. Add “to the riser tensioning equipment” to first line.

Section 6.9. Delete item 5.

Section 7. Robert Funderburg to ask Oil States to comment on this section by August 16.

Section 9.2. David Tannich to check on referencing API Spec 16C at next 16C task group meeting on July 10.

Section 10.1.1. Paul Stanton to add requirement for a wear allowance to item 4.

Section 10.7. Delete item 5.

Paragraph 11.2.1. Reword 1). Delete 2).

Section 11.3. Add welding.

Section 11.6. End line 3 with “as-built assembled weight excluding buoyancy and protectors.”
Section 12.2.4. Robert Taylor to replace the 0.25” minimum requirement for flexure lugs with a performance requirement that includes requirements for both lugs and end taper that accommodates riser bending during handling.

Section 12.2.6.5. Paul Stanton to check on current practice for conformance testing.

Section 12.2.7. Put items c), d) and e) on data sheet.

Section 13.1. Robert Taylor to see if using Spec 8C allowable stresses on riser running tools creates a problem.

Section 17. Current version to be used.

Section 17.5. Dave O'Donnell objected to tracing back through the manufacturing process. Will propose alternative.

Section 17.6. Delete “assemble and” from 1st sentence.

Annex B

Section B.1. Paul Stanton to reword definition of primary bending.

Section B.2. Robert Taylor to check equation that allows local stress up to 2.0 Sy.

Section B.3. Robert Funderburg to propose something for bolting by August 16.

**API RP 16Q**

The chairman announced that he had received a draft of a revision of API RP 16Q from MCS. MCS was paid by DeepStar to produce this revision from work by DeepStar on recommended practices for deepwater drilling risers. MCS has scheduled a meeting for July 9 with Dave Bacon, chairman of the DeepStar committee, and David Tannich and Paul Stanton to discuss the draft. A new work group will be formed to edit this document so that it can replace ISO 13624, which was pulled out of the ISO approval process in late 1999 in anticipation of this current document.

**Adjourn**

The next task group meeting will be held on August 16, 2001.
List of Meeting Attendees
Task Group on Marine Drilling Risers
78th API Summer Standardization Conference
Calgary, Canada
25 June 2001

Larry G Byars   Consultant
Noorali Dhamani  ABS Americas
Robert Funderburg  ABB Vetco Gray
Tim Haeberle  ABB Vetco Gray
Gerry Janszen  Cameron The Hague
Shafiq Khandoker  Hydrl Company
Paul Mizerak  Stewart & Stevenson
David O'Donnell  Varco International
Shyam Patel  FMC Technologies
Sid Ruiz  MI
Alan Spackman  IADC
Paul Stanton  CSO Aker Engineering
David Tannich  Cudd Well Control
Robert Taylor  Marine Drilling
Eric Wehner  Cameron
Brian Wright  CAD Oilfield
Committee 3: Subcommittee 16: Task Group 2

Control Systems for Drilling Well Control Equipment

Tuesday, June 26, 2001, 8:30 a.m.
Neilson 2 Room, Hyatt Regency Calgary Hotel, Calgary, Alberta, Canada

Chairperson: Joe R. Roche
(Presiding: J. David Tannich)

Introduction

David Tannich chaired the meeting and conveyed the regrets of Joe Roche, who was unable to attend.

The stated Task Group objective for the meeting was to resolve comments received during the letter ballot on API Specification 16D, 2nd Edition.

Revisions to Current Draft of API Spec 16D, 2nd Edition

In addition to the ballot comments, other member comments were also presented, and the Task Group proposed the following changes:

Section 2. Correct the Normative References list so that the citation for each reference is complete. Need to add SSPC (see Section 8.6) and ISO 14224 (Section 3.76).

Section 3. Refer to the document as a 'specification' instead of an 'international standard' so long as the document is progressing only within the API organization.

Section 3.49. Editorial change BOP to BOP(s).

Section 3.76. ISO 14224 is not listed as a Normative Reference in Section 2.

Section 4.1.2.e). 'Rated Design Working Pressure' is not used consistently throughout the document. Review 'Rated Working Pressure' and other similar terms to ensure we avoid ambiguous usage.

Section 5.2.4.9. Delete second sentence marking requirements for filtering devices because meaning of 'restriction size' was too vague — micron rating? nominal? absolute? There was also discussion that conventional marking techniques, whether external or internal, have significant drawbacks. Will require re-ballot in the judgment of the TG since we are removing an explicit requirement for the equipment.

Section 5.2.5.2.a). Editorial revision to description of 'Rig Floor Panel.'
Section 5.2.10.2. Clarified that the minimum bend radius of the subsea umbilical applies to the type of service intended, i.e., static or dynamic conditions.

Section 5.5.4. Need to re-work the section, incorporating language from Section 5.1.2.3.

Section 5.5.7. Change heading and re-organize section per TG discussion. Delete the second sentence entirely; the sentence requires that the main hydraulic panel be placed at a location remote from the rig floor, thus conflicting with panel placements commonly used on jack-up rigs. Will require re-ballot in the judgment of the TG since we are removing a previously specified requirement.

Section 8.5. Need to verify that NACE RP-01-76 continues to be a current reference standard.

Section 8.6. SSPC is not listed as a Normative Reference in Section 2. A complete citation is needed.

Annexes A and B

Change 'DEN' to 'HSE' in the template headers.

Adjourn

The meeting was adjourned at 12:00 noon.
List of Meeting Attendees
Task Group on Control Systems for Drilling Well Control Equipment
78th API Summer Standardization Conference
Calgary, Canada
26 June 2001

<table>
<thead>
<tr>
<th>Kermit Batey</th>
<th>Hose-Tex</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dan Becker</td>
<td>Marine Drilling</td>
</tr>
<tr>
<td>Steve Bernard</td>
<td>Huisman</td>
</tr>
<tr>
<td>Barry Biddy</td>
<td>Hose-Tex</td>
</tr>
<tr>
<td>Laura De Jesus</td>
<td>Hydril Company</td>
</tr>
<tr>
<td>Noorali Dhamani</td>
<td>ABS Americas</td>
</tr>
<tr>
<td>Norman Dyer</td>
<td>DNV</td>
</tr>
<tr>
<td>Robert Funderburg</td>
<td>ABB Vetco Gray</td>
</tr>
<tr>
<td>Norman Glasson</td>
<td>Hose-Tex</td>
</tr>
<tr>
<td>Ken Kando</td>
<td>National Oilwell</td>
</tr>
<tr>
<td>Shafiq Khandoker</td>
<td>Hydril Company</td>
</tr>
<tr>
<td>Paul Mizerak</td>
<td>Stewart &amp; Stevenson</td>
</tr>
<tr>
<td>Larry Odelius</td>
<td>Cooper Cameron Controls</td>
</tr>
<tr>
<td>David O'Donnell</td>
<td>Varco International</td>
</tr>
<tr>
<td>Ron Robertson</td>
<td>Wood Group Pressure Control</td>
</tr>
<tr>
<td>Sid Ruiz</td>
<td>MI</td>
</tr>
<tr>
<td>David Tannich</td>
<td>Cudd Well Control</td>
</tr>
<tr>
<td>Robert Taylor</td>
<td>Marine Drilling</td>
</tr>
<tr>
<td>Brian Wright</td>
<td>CAD Oilfield</td>
</tr>
</tbody>
</table>