# Minutes – API 581 Task Group on Risk Based Inspection

Chicago, IL  
B. Ray, Chairman / R. Sladek, K. Gottselig, Vice Chairman  
API 581 Task Group – Spring 2016

## Meeting Minutes

<table>
<thead>
<tr>
<th>Agenda Item</th>
<th>Action By:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Introductions and Attendance Sheet</td>
<td>Brent Ray</td>
</tr>
<tr>
<td>2. Approval of Agenda</td>
<td>Group Review</td>
</tr>
<tr>
<td>3. Review and Approval of Fall 2015 Meeting Minutes</td>
<td>Group Review</td>
</tr>
<tr>
<td>4. Announcements &amp; Task Group</td>
<td>Brent Ray</td>
</tr>
<tr>
<td>1. Third edition was published 4/1/2016</td>
<td></td>
</tr>
<tr>
<td>2. Brent provided a short presentation of the structure and direction for the Fourth Edition work. The goals are to:</td>
<td></td>
</tr>
<tr>
<td>a. Publish at a 5 year frequency, next release 2021</td>
<td></td>
</tr>
<tr>
<td>b. Release 1st edition addendums in October 2017, 2019</td>
<td></td>
</tr>
<tr>
<td>c. Reduce existing action items by 75% before the 4th edition release</td>
<td></td>
</tr>
<tr>
<td>3. Establish legacy in the Task Group for long term effort. Key word = SUSTAINABILITY.</td>
<td></td>
</tr>
<tr>
<td>The Fourth Edition will be restructured significantly. For now, the terminology will be by referring to:</td>
<td>Discussion among group members.</td>
</tr>
<tr>
<td>a. Parts 1-3 for 3rd edition</td>
<td></td>
</tr>
<tr>
<td>b. Sections A-F for 4th edition organization</td>
<td></td>
</tr>
<tr>
<td>This terminology will help us to track actions and not be confused by the future changes planned.</td>
<td></td>
</tr>
<tr>
<td>6. Review of Prioritized Action Items Database</td>
<td>Rob Sladek</td>
</tr>
<tr>
<td>A summary of the activity to date was provided by the Part leads:</td>
<td>Part Leaders as mentioned</td>
</tr>
<tr>
<td>a. Mark Harmody – reported that work will begin at the meeting</td>
<td></td>
</tr>
<tr>
<td>b. Tony Poulassachidis – reported that the actions have been separated into thinning and cracking subgroups. A conference call for each was held prior to the Chicago meeting to discuss the actions. Further discussion is planned during the break out group.</td>
<td></td>
</tr>
<tr>
<td>c. Rob Sladek for Jim Widrig – reported that a summary of the Part 3 actions were provided for the Chicago meeting and will be discussed during the break out group.</td>
<td></td>
</tr>
<tr>
<td>7. Break Out Sessions by Part</td>
<td>Part Leaders</td>
</tr>
<tr>
<td>All groups met to:</td>
<td>facilitated – members participated</td>
</tr>
<tr>
<td>a. Reconfirm priorities and condense the action item list to a refined set of actions</td>
<td></td>
</tr>
<tr>
<td>b. Identify items for verification and editorial/technical changes</td>
<td></td>
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</tbody>
</table>
8. **Review of Break Out Sessions**
   a. Part 1 – addressed high priority, low effort items for completion
      i. 20 of 35 reviewed with possibly 10 that can be balloted by fall
   b. Part 2 addressed high priority, low effort items for completion
      i. Thinning external coatings are high priority
      ii. Cracking – carbonate working; Cl SCC addition of lower pH
   c. Part 3 – Need to resolve all actions to verify complete items and low effort items. Will identify items for ballot in fall in next conference call.

   **ACTION:** The Part teams will have conference calls to assign responsibilities for completion of the priority action items and submission of ballots by August 1st.

9. **Goal Setting for 3rd Edition, 1st Addendum**

   **ACTION:** The Part teams will have conference calls to assign responsibilities for completion of the priority action items and submit ballots by August 1st.

   Brent Ray – led

10. **New Business**
    a. Discussion of Level 2 POF – Equity Engineering provided a proposal for development, documentation and preparation of a ballot for the POF approach. A discussion raised questions of the purpose of the Level 2 POF:
       i. Why are we doing this? Do we need a more quantitative approach?
       ii. What are the perceived problems with the current 3rd edition approach that this is going to resolve?
       iii. Are we taking the POF technology to a level that will longer allow inspectors to participate?
       iv. Do we understand the impact of the 3rd edition changes yet?
       v. Are thinning, cracking and other needs a higher priority than this improved/precise approach?

    **b. The group decided to table the POF Level 2 until 2017 when we evaluate if there is a need for a more quantitative method for POF.**

    **Technical Inquiries**
    a. ExxonMobil comments on 3rd edition after the release were discussed. The editorial comments have been resolved. The remaining comments will be resolved through the next ballot process as technical comments.
    b. TIPEL technical comment about the definition of constants ($C_1$-$C_{45}$) are not defined and may be
<p>| | |</p>
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<tbody>
<tr>
<td></td>
<td>confused with $C_{1-C_{25}}$ of fluid models. May need to address in 4$^{th}$ Edition.</td>
</tr>
<tr>
<td>11.</td>
<td>Adjournment</td>
</tr>
</tbody>
</table>
API RP 581 Task Group
Spring 2016 Meeting
Business & Work Sessions

2016 SPRING REFINING & EQUIPMENT STANDARDS MEETING
CHICAGO (ILLINOIS), MAY 16TH, 2016
Welcome

- First meeting utilizing the 3rd Edition of the Document

- Introduce yourself
  - Name
  - Company
  - Position / Experience
  - Why you are here
  - One unique thing about yourself

- Remember: This is a business and working meeting, there are no ballots to review at this time
Agenda

- Welcome
- Introductions
- Review of Agenda
- Review of Old Minutes
- Announcements & About the TG
- A New Era – Outlook for 4th Edition
  - General Outline Report
  - Part 1 Report
  - Part 2 Report
  - Part 3 Report
  - Level 2 Probability of Failure Proposal
- Review of Prioritized Action Items Database
- Break-out Sessions
- Review Break-out Sessions
- Goal Setting for 3rd Edition, 1st Addendum
- New Business
  - Technical Inquiries
- Dismiss
API RP 581 Task Group
Announcement!

API RP 581
THIRD EDITION

PUBLISHED APRIL 1, 2016
(no joking!)

AVAILABLE NOW!
API RP 581 Task Group
A Little About Us

- Prior to 2008, we met as part of the API RBI Software Users Group.
- Since 2008, we meet as a separate group at the API Spring and Fall Meetings and concentrate on the technology / methodology within the API RP 581 document.
- We have three officers that comprise an Executive Committee.
- We have a Master Editor for the document and three Part Leaders for the document, one for each part – this is the Document Committee.
- We have a Steering Committee that includes the Executive Committee, the Master Editor, the Part Leaders, and several appointed Members-at-Large.
### Executive Committee

<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chairman</td>
<td>Brent Ray</td>
</tr>
<tr>
<td>Vice-Chair</td>
<td>Ken Gottselig</td>
</tr>
<tr>
<td>Vice-Chair</td>
<td>Rob Sladek</td>
</tr>
</tbody>
</table>

### Document Committee

<table>
<thead>
<tr>
<th>Role</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Master Editor</td>
<td>Lynne Kaley</td>
</tr>
<tr>
<td>Part 1 Lead</td>
<td>Mark Harmody</td>
</tr>
<tr>
<td>Part 2 Lead</td>
<td>Tony Poulassichidis</td>
</tr>
<tr>
<td>Part 3 Lead</td>
<td>James Widrig</td>
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</tbody>
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### Members-At-Large

<table>
<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Andrew Morey</td>
</tr>
<tr>
<td>John Britton</td>
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STEEERING COMMITTEE
Steering Committee Purpose:

- Provide and foster a vision for the continuous improvement and addition to the methodology and technology in API RP 581.
- Facilitate communication and cooperation within the Task Group.
- Facilitate the review, balloting, and publication of API RP 581 in order to maintain a 5 year cycle on main editions.
- Facilitate the disposition of all outstanding action item.
API RP 581 Task Group
A Little About Us

- API RP 581 Task Group Vision:
  - Publication of at least two addenda prior to the publication of the 4th Edition.
    - Aiming for October 2017 and October 2019.
  - Reducing the amount of action items by 75% by the 4th Edition. <Stretch Goal>
  - Fostering a ‘legacy’ within the API RP 581 Task Group for new members and sustainability of effort.
API RP 581 Task Group
A Little About Us

- Individual Members
  - Support through participation and volunteerism
  - Ballot review / comment
  - Introduction of new methodology / technology
  - Ask questions / provide answers

- Our Membership
  - ~50% Owner/User
  - ~25% Consultants
  - ~20% Contractors
  - ~5% Other (Manufacturer, Government Representative, etc.)
CRE SUBCOMMITTEE RESOLUTION OF APPRECIATION (ROA)

The CRE Subcommittee Resolution of Appreciation is presented to an individual who has demonstrated leadership, contributed significant technical expertise or encouraged new innovations to a particular effort such as the development of a standard or recommended practice.

A citation is prepared on behalf of the recipient and is included on the certificate that is signed by the CRE Subcommittee Chair and API staff.

This recognition is announced by the CRE Chair at the Welcoming breakfast and presented at a subsequent subcommittee meeting.
CRE SUBCOMMITTEE RESOLUTION OF APPRECIATION (ROA)

Our nominees for 2016 include:

- Allison Hardy
- Brent Ray
- Ken Gottselig
- Mark Geisenhoff
- Rob Sladek
- Tony Poulassichidis
- Antonio Seijas
- Greg Alvarado
- Leslie Ward
- Phil Henry
- Steven DeVillier
- Virginia Edley
- Bart Aupperle
- John Britton
- Lynne Kaley
- Rene Goderie
- Tom Folk

The certificates will be presented at the SCI Joint Meeting on Thursday.
API CITATION FOR SERVICE (CFS)

The API Citation for Service award is presented to an individual who has demonstrated continued and dedicated service, contributing leadership and technical expertise in support of a variety of CRE and subcommittee activities, typically for a minimum of ten years.

A certificate is prepared on behalf of the recipient that is signed by the CRE Chair and API senior staff. The CRE Chair presents the certificate to the recipient at the Welcoming breakfast.
API CITATION FOR SERVICE (CFS)

Our nominees for 2016 include:

Antonio Seijas
Ken Gottselig
Lynne Kaley
Phil Henry
John Britton

The certificates will be presented at the SCI Joint Meeting on Thursday.
A New Era
Outlook for the 4\textsuperscript{th} Edition

Old Outline (3\textsuperscript{rd} Edition)
- Part 1 – Inspection Planning Methodology
- Part 2 – Probability of Failure Methodology
- Part 3 – Consequence of Failure Methodology

NEW Outline (4\textsuperscript{th} Edition)
- Part 1 – Introduction to Risk-Based Analysis
- Part 2 – Probability of Failure
- Part 3 – Consequence of Failure
- Part 4 – Inspection Planning Using Risk-Based Analysis
- Part 5 – Examples of Risk-Based Analysis Problems
- Part 6 – Risk-Based Analysis for Specific Equipment Types
A New Era
Outlook for the 4\textsuperscript{th} Edition

- Part 1 Outlook (Mark Harmody)
  - New Part Leader!
  - Taking responsibility for leading the development effort of Part 1 of API 581.
  - Need to confirm volunteer interest in helping support the various sections of Part 1.
- During the breakout session:
  - Review the action items and begin to prioritize and schedule the work
  - Set momentum by first working on the higher priority / lower effort items
Part 2 Outlook (Tony Poulassichidis)

- Formed subteams that are tasked to resolve thinning and cracking ballot items that have not been addressed in 3rd Edition
  - Based on required effort and expected impact, these thinning and cracking related ballot items have been prioritized
  - Volunteers are welcome for addition to above teams
- Thinning and cracking are the priority areas to focus for Part 2, based on number of documented ballot items
- Spring 2016 subteam meetings aiming to
  - confirm prioritization list
  - update files to reflect that few of these items are actually resolved in 3rd edition and can be removed from “scorecard” list
  - identify action plan for resolving remaining ballot items
A New Era
Outlook for the 4th Edition

- Part 3 Outlook (James Widrig)
  - 59 Items in Current Backlog. These include -
    - Added Content for COF Methodologies to determine release SHE and Financial consequences.
    - Additional components of Above Ground Storage Tank CoF.
  - Review to Understand the Value of the Proposed Changes.
    - Is there a current driver for making the change to the 3rd Edition of API 581?
  - Develop an Updated List of Prioritized Action Items.
    - Evaluate perceived effort and technical difficulty for each item.
  - Associate a Subject Matter Expert or Committee Member to lead the development of materials for Version 4.
    - Develop a schedule and plan for moving forward with completing actions for balloting.
Level 2 PoF Discussion

Recap: Equity Engineering has proposed a Level 2 PoF methodology several times, beginning at the Fall 2011 meeting.

- The methodology became a ballot, but 4 owner/users refused to accept the methodology until the required technical references were developed and published (as WRC bulletins).

- Roughly, the methodology will be an ‘improvement’ to the current PoF methodology (termed Level 1 PoF, for reference).

- The Task Group has tracked the further development of the methodology, and currently Equity Engineering is proposing an item for us to budget, that would conclude the discussion as well as provide a ballot for the group to consider.
A New Era
Outlook for the 4th Edition

- The proposed Level 2 enhancements include:
  - A more accurate limit state function that can be adapted for different types of components such as thin or thick wall vessels, formed heads, nozzles and conical transitions,
  - The ability to explicitly model internal and external corrosion rates,
  - The incorporation of an RSF factor as defined by API 579-1/ASME FFS-1 for modeling of local corrosion and pitting,
  - A more accurate representation of material properties,
  - A continuous corrosion rate updating method that results in smooth and continuously increasing POF curves that are expected for structures subject to time dependent damage and is able to include wall thickness loss measurements over multiple inspection intervals and TMLs with similar corrosion characteristics,
A New Era

Outlook for the 4\textsuperscript{th} Edition

- The proposed Level 2 enhancements include (continued):
  - An analytical inspection effectiveness model that quantifies the characteristics of non-destructive inspection techniques in a consistent manner and that can be easily adapted to different procedures,
  - A state-of-the-art statistical algorithm that allows for efficient estimation of failure probability for a general form of limit state function and a wide variety of input variable distributions (i.e. normal, lognormal, Weibull, beta, Gumball, etc.), and
  - Discovery of dimensionless parameters that allow a small set of damage factor lookup tables to cover a broad spectrum of real world applications.
A New Era
Outlook for the 4th Edition

Deliverables:
- Development of this new methodology
- Perform detailed comparisons between the Level 2 approach and the previous approaches to determine what advantages and disadvantages
- Publication of a WRC bulletin that describes the approach in great detail
  - Will provide sufficient background for understanding and implementation
  - Will include detailed comparisons to API RP 581, 3rd Edition methodology
  - Will include step-by-step procedures and any supplementary tables required so that it can be directly incorporated into future editions of API RP 581 as a Level 2 method
- Creation of an API Ballot for API RP 581

All by December 31st, 2016
A New Era
Outlook for the 4\textsuperscript{th} Edition

- Level 2 PoF Discussion
  - Questions to answer:
    - Is the additional methodology needed, from an RBI market perspective?
    - Is the additional methodology needed, from a Task Group member perspective?
    - If the consensus is ‘yes’, then what is our priority for completion? To consider:
      - The methodology and documentation will need to be completed.
      - We will need to ballot and then resolve concerns.
      - After balloting, will we need to have a 3\textsuperscript{rd} Party review and test the methodology?
      - After review/testing, we may need to address issues and that will require a reballot of the proposal.
Action Item Database

Review of Prioritized Actions

- Rob Sladek to lead a review of the Action Item Database

Review of Part 3

in continuation of the Fall 2015 Meeting
Break-out Sessions

Expectations

- Each Part Leader will now take their respective group and discuss the plan forward.
  - This is also a brainstorming session, in order to find a common set of goals.

- If you have not volunteered for participation, don’t hesitate to pick a group and listen in.
  - Think about what area you can provide insight for…
  - Think about what area you are interested in learning more…
Break-out Sessions

Questions to Consider

- Can the item be combined with others, to make a more complete action item?
- Does the document actually require the action item? Is industry asking for this information?
- Are there other items that can be born from a current action item?
- Do we have solid subject matter experts that will volunteer to complete the action item in a timely fashion?
- Is there industry work that we can leverage to complete the action item?
We will now review the breakout sections

Part 1

Part 2

Part 3
Goal Setting
First Up ➔ 3rd Edition - 1st Addendum
Goal Setting

First Up ➔ 3rd Edition - 1st Addendum

- What are the items we will concentrate on?
  - Part 1:
  - Part 2:
  - Part 3:

- When will we plan to have these ready for first ballot?
  - Part 1:
  - Part 2:
  - Part 3:

**GOAL**: Ballots and Resolution complete by end of Spring 2017 API Meeting. To publish 1st Addendum, 3rd Edition by Fall 2017 API Meeting.
New Business
Review of Work, Your Ideas and Q&A

1. ExxonMobile Submittal of Issues with 3rd Edition
   - Roy C.K. Meyer, ExxonMobil Upstream Measurement Lead
   - 35 items were submitted – 11 assigned to the Task Group (3 technical)

2. RTIPEL SAEquests for Information

3. Other items?
<table>
<thead>
<tr>
<th>ExxonMobile Comment</th>
<th>Responsibility</th>
<th>Type</th>
<th>Commentary</th>
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</thead>
<tbody>
<tr>
<td>8</td>
<td>581 TG</td>
<td></td>
<td>As stated, it is a common use of the wording. This is one for the definitions/acronym project, and the change should not be made.</td>
</tr>
<tr>
<td>13</td>
<td>581 TG</td>
<td></td>
<td>OK, but we just need to make sure S4.5 items are the same as S4.2,4.3,1,4,4,1 for changes to coincide with API editorials?</td>
</tr>
<tr>
<td>17</td>
<td>581 TG</td>
<td></td>
<td>This one I’m unsure about. We use mpy to designate mils-per-year as a measurement of corrosion rate. This has been a ‘standard’ for as long as I know. Should we include it somewhere as footnote or in the acronym section? Any other standard/code/RP doing this? I believe this to be a technical issue.</td>
</tr>
<tr>
<td>21</td>
<td>581 TG</td>
<td></td>
<td>OK, but this needs to be verified as it may be construed as a Technical Comment.</td>
</tr>
<tr>
<td>23</td>
<td>581 TG</td>
<td></td>
<td>Understood, but what would be the effort level for changing this? Just a ‘find and replace’ exercise? It would also require a review of each individual spot on that ‘find and replace’. Would this item be appropriate for the 4th Edition?</td>
</tr>
<tr>
<td>35</td>
<td>581 TG</td>
<td></td>
<td>Not acceptable as an edit at this time. We can take this as an action item for the 4th Edition work, but this will be rather time consuming.</td>
</tr>
</tbody>
</table>
In [API RP 581, 2nd Edition, 2008 printing] Part 3, section 6.8.1.2, equation 3.121, "C4" is used as nomenclature symbol, but it is not defined.

In equation 3.12 the same thing happens with "C3" symbol, but in this latter case it is clear that the symbol is equivalent to 4.536 kgs (10000 lbs).

Could you tell me the meaning of "C4" in equation 3.121, if it is defined in the standard and in what page?
API RP 581 Task Group - Reply Formulation

- Note that you are referencing the 2\textsuperscript{nd} Edition of API RP 581. The most current version is 3\textsuperscript{rd} Edition, published April 2016.
- Equation 3.121 has now become …
- Constants such as “C3” and “C4” are defined in …
- Please refer to the newest edition, and see if your concerns have been addressed.
We have a direction.

We have a good knowledge base.

We will get to our destination, and push beyond.
THANK YOU!

For Your Attention and Concern to API RP 581

To the Task Group Members, the volunteers, the Steering Committee members, and all newcomers and visitors!

API RP 581 Task Group

Spring API Conference - 2016
# Record of Meeting Attendance

## Meeting: API RP 581 Task Group – Business Meeting and Work Session

**Chairperson(s):** SCI Crimaudo Ray

**Time:** 8:00 am - 12:00 pm  
**Date:** 5/17/16

Committee members should make changes to their contact information on the roster provided. Visitors adding names to the roster will not automatically become members of the committee.

Indicate in the first column ( ) if you are:
- (M) Member of the committee in session,
- (R) Representing a Committee Member (if so, state the member’s name),
- (V) Visitor – ONLY voting members or their representatives may vote, or
- (S) Staff.

<table>
<thead>
<tr>
<th>Name (please print clearly)</th>
<th>Company/Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Robert Stack</td>
<td>AOC <a href="mailto:rsladek@aocecorp.com">rsladek@aocecorp.com</a></td>
</tr>
<tr>
<td>John Brittner</td>
<td>INYYG <a href="mailto:john.britttner@inyyg.com">john.britttner@inyyg.com</a></td>
</tr>
<tr>
<td>Greg Alvacado</td>
<td>Trinity Bridge Inspection <a href="mailto:gnavsardo@inspections.com">gnavsardo@inspections.com</a></td>
</tr>
<tr>
<td>Brent Ray</td>
<td>Fauuhatron ondy @merschock.com</td>
</tr>
<tr>
<td>Mohamed Chahour</td>
<td>TWI North America <a href="mailto:mohamed.chahour@twi-northameric.com">mohamed.chahour@twi-northameric.com</a></td>
</tr>
<tr>
<td>Leslie Ward</td>
<td>Georgia Pacific <a href="mailto:leslie.ward@gapac.com">leslie.ward@gapac.com</a></td>
</tr>
<tr>
<td>Kelley Vaukoon</td>
<td>Procurex Consulting <a href="mailto:xelley_vaukoon@procurexconsulting.com">xelley_vaukoon@procurexconsulting.com</a></td>
</tr>
<tr>
<td>Steven Balingar</td>
<td>BP <a href="mailto:steven.balingar@bp.com">steven.balingar@bp.com</a></td>
</tr>
<tr>
<td>Marcy Vendehburg</td>
<td>Pinnacle ART <a href="mailto:marcyv@gmail.com">marcyv@gmail.com</a></td>
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<tr>
<td>John Harville</td>
<td>Phillips <a href="mailto:john.j.harville@pp.com">john.j.harville@pp.com</a></td>
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<tr>
<td>Ben Brambila</td>
<td><a href="mailto:ben.brambila@pinnacleart.com">ben.brambila@pinnacleart.com</a></td>
</tr>
<tr>
<td>John Campo</td>
<td>Pinnacle ART <a href="mailto:john.campo@pinnacleart.com">john.campo@pinnacleart.com</a></td>
</tr>
<tr>
<td>Mike Ferris</td>
<td>Huntsman <a href="mailto:michael-ferris@huntsman.com">michael-ferris@huntsman.com</a></td>
</tr>
<tr>
<td>Marc McConnell</td>
<td>VERSA INTEGRITY <a href="mailto:marc.mcconnell@versaintegrity.com">marc.mcconnell@versaintegrity.com</a></td>
</tr>
<tr>
<td>Travis Harrington</td>
<td>Chevron/travis.harrington@chevron.com</td>
</tr>
<tr>
<td>Mark Harmody</td>
<td>Equinix <a href="mailto:mharmony@equinix.com">mharmony@equinix.com</a></td>
</tr>
<tr>
<td>Ernesto De Villiers</td>
<td>Trinity Bridge <a href="mailto:steven@trinity-briggs.com">steven@trinity-briggs.com</a></td>
</tr>
<tr>
<td>Allison Hardy</td>
<td>LyondellBasell <a href="mailto:allison.hardy@lyondellbasell.com">allison.hardy@lyondellbasell.com</a></td>
</tr>
<tr>
<td>Vinu Nair</td>
<td>MERIDIAN <a href="mailto:vinu@meridin.com">vinu@meridin.com</a></td>
</tr>
<tr>
<td>Josh Treisner</td>
<td>Marathon Energy <a href="mailto:josh.treisner@marathon-energy.com">josh.treisner@marathon-energy.com</a></td>
</tr>
<tr>
<td>Andrew Money</td>
<td>Dow Chemical <a href="mailto:andrew.momy@dow.com">andrew.momy@dow.com</a></td>
</tr>
</tbody>
</table>

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**API standards meetings are open to all interested parties. By participating in the standardization process and signing this form, you agree: (1) to fully comply with API’s policies and procedures governing standards and antitrust concerns, (2) that once ballots and approved by API, API shall have a non-exclusive, perpetual, royalty-free worldwide license to use any materials submitted by the participant for use in the standard, including creation of any derivative works, (3) you will not provide any patented technologies in the material that you provide, and (5) you will not make audio or video recordings of API meetings without the express written consent of API staff.**
<table>
<thead>
<tr>
<th>Name</th>
<th>Company/Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tony Poulassichidis</td>
<td>Anadarko / <a href="mailto:tony.poulassichidis@anadarko.com">tony.poulassichidis@anadarko.com</a></td>
</tr>
<tr>
<td>Antonio Correia Da Cruz</td>
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