# API Ballot Summary Sheet

**Ballot: 42-04: 650-547, Tolerance for Tank Construction**

**Start Date:** 8/30/04  
**Closing Date:** 10/11/04  
**Associate:** Roland Goodman  
**Coordinator:** Valeen Young

## Proposal:

<table>
<thead>
<tr>
<th>Voter</th>
<th>Company</th>
<th>Comments</th>
<th>Affirmative</th>
<th>Negative</th>
<th>Abstain</th>
<th>Did Not Vote</th>
</tr>
</thead>
<tbody>
<tr>
<td>134629</td>
<td>Nelson Acosta</td>
<td>HMT Inspection</td>
<td>No</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>131617</td>
<td>Joel Andreani</td>
<td>Equity Engineering Group, Inc., The</td>
<td>No</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>38921</td>
<td>Robert Annett</td>
<td>Alyeska Pipeline</td>
<td>No</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>73074</td>
<td>Ronald Bailey</td>
<td>American Tank &amp; Vessel, Inc.</td>
<td>No</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>149835</td>
<td>Kelly Baker</td>
<td>Interline Plastics, Ltd</td>
<td>No</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>136219</td>
<td>Mark Baker</td>
<td>Baker Consulting Group, Inc.</td>
<td>No</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>142888</td>
<td>Chris Bashor</td>
<td>Minnesota Pollution Control Agency</td>
<td>No</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>134681</td>
<td>Ernie Blanchard</td>
<td>IMC-Phosphates</td>
<td>No</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22200</td>
<td>Dan Boley</td>
<td>DJA Inspection Services</td>
<td>No</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>134782</td>
<td>Steve Caruthers</td>
<td>Tank Consultants, Inc.</td>
<td>No</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>141258</td>
<td>John Cornell</td>
<td>Kinder Morgan</td>
<td>No</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7127</td>
<td>Earl Crochet</td>
<td>ExxonMobil</td>
<td>No</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>142685</td>
<td>Domingo de Para</td>
<td>BP p.l.c. Whiting Refinery</td>
<td>No</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>133403</td>
<td>Jeffrey DeArmond</td>
<td>Matrix Service Company</td>
<td>No</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>135965</td>
<td>Kenneth Erdmann</td>
<td>Dow Chemical Company, The</td>
<td>No</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>105011</td>
<td>David Flight</td>
<td>Marathon Ashland Petroleum LLC</td>
<td>No</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>134870</td>
<td>Laurence Foster</td>
<td>Pond and Company Inc.</td>
<td>No</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>134880</td>
<td>John Fumbanks</td>
<td>Colonial Pipeline Company</td>
<td>No</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>115033</td>
<td>Alan Geis</td>
<td>Hagen Engineering International, Inc.</td>
<td>No</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>70596</td>
<td>Marty Herlevic</td>
<td>James Machine Works, Inc.</td>
<td>No</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>93133</td>
<td>Randy Kissell</td>
<td>TGB Partnership</td>
<td>Yes</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>81918</td>
<td>Manfred Lengsfeld</td>
<td>Tank Industry Consultants, Inc.</td>
<td>No</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>135014</td>
<td>John Lieb</td>
<td>AEC Engineering, Inc.</td>
<td>Yes</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>136274</td>
<td>Thomas Lorentz</td>
<td>Quense LLC</td>
<td>No</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>135072</td>
<td>Francis Maitland</td>
<td>Conservatek Industries, Inc.</td>
<td>No</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>78399</td>
<td>David Martin</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Proposal:**

| MS ID   | Name                  | Company                                | Vote |
|---------|-----------------------|----------------------------------------|------|---|
| 113545  | James McBride         | Petrex, Inc.                           | Yes  | X |
| 146748  | Tim McMullen          | Terasen Pipelines (USA) Inc.           | No   |   |
| 139045  | Craig Meier           | ConocoPhillips                         | No   |   |
| 137255  | Carl Mikkola          | Enbridge Energy Partners, L.P.         | No   | X |
| 131185  | Douglas Miller        | Chicago Bridge & Iron Company (CB&I)  | Yes  | X |
| 69609   | Bhana Mistry          | TIW Steel Platework                    | No   | X |
| 83736   | John Mooney           |                                        | Yes  | X |
| 92212   | George Morovich       | TEMCOR                                 | No   |   |
| 136286  | Philip Myers          | ChevronTexaco Corporation              | Yes  | X |
| 132210  | David Nasab           | Kellogg Brown & Root                   | No   | X |
| 82544   | John Oleyar           | HMT, Inc.                              | No   | X |
| 5193    | Richard Pinegar       | Cargill Inc.                           | No   | X |
| 102412  | Roy Ralph             | Petro-Canada                           | No   | X |
| 135169  | Michael Richardson    | International Paper                    | Yes  | X |
| 73744   | Bruce Roberts         |                                        | Yes  | X |
| 101360  | Marilyn Shores        | Sunoco Logistics                       | No   | X |
| 126019  | Larry Speaks          | Mass Technology Corporation            | No   | X |
| 134314  | Tearle Taylor         | Flint Hills Resources                  | No   | X |
| 134325  | Donald Thain          | Shell Global Solutions (US) Inc.       | No   | X |
| 145034  | Leith Watkins         | Explorer Pipeline Company              | No   | X |
| 145896  | Alan Watson           | A. R. Watson USA                       | No   | X |
| 132209  | Richard Whipple       | Fluor, Inc.                            | No   | X |
### API Ballot Summary Sheet

**Ballot:** 42-04: 650-547, Tolerance for Tank Construction

**Start Date:** 8/30/04  
**Closing Date:** 10/11/04

**Proposal:**

<table>
<thead>
<tr>
<th>Balloting Totals:</th>
<th>Affirmative</th>
<th>Negative</th>
<th>Abstain</th>
<th>Did Not Vote</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>34</td>
<td>4</td>
<td>0</td>
<td>11</td>
</tr>
</tbody>
</table>

- **Total Responses:** 38
- **Total Ballots:** 49
- **Response Rate:** 69%  
  Must be > 50%
- **Approval Rate:** 89%  
  Must be > 67%
- **Consensus:** YES

**Associate:** Roland Goodman  
**Coordinator:** Valeen Young  
**AMS ID:** 534
<table>
<thead>
<tr>
<th>#</th>
<th>Voter/Comment</th>
<th>Company</th>
<th>Section No. (e.g. 3.1)</th>
<th>Type of comment</th>
<th>Comment (justification for change)</th>
<th>Proposed Change</th>
<th>Comment Resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>John Mooney</td>
<td>Technical</td>
<td>The plumness tolerances are so loose that you can see flat spots on tanks from 100 yards away on badly built tanks. The British Tank Standard requires plumness of 1 in 200 or 250 of a shell course height. If the British can build to this, why can’t we?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Bruce Roberts</td>
<td>Technical</td>
<td>The proposed change is OK, but highly unlikely to result in any Purchaser specifying tolerances similar to those in 653, etc.</td>
<td>Add: “The Purchaser may want to specify additional tolerances for future needs, such as the shell diameter tolerance at the top to permit adding a geodesic dome, adding an internal floating roof, or reconstructing the tank.”</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Philip Myers</td>
<td>Technical</td>
<td>I agree that better tolerance control over general roundness is needed. However, I am not sure that the values used at the base of the tank are reasonably achievable at ½ and 1H. It may be that this costs a lot extra and the actual tolerances required for a good tank are somewhat less tight. Also, I think the wording in the note at the bottom of the data sheet should be toned down as follows: “If Additional Radial Tolerances are desired because roundness is considered important throughout the full tank height, radial tolerances…”</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>John Lieb</td>
<td>Technical</td>
<td>I do not think that this addition is necessary. It implies that the current minimum tolerances specified in the standard are not adequate for the operation of a floating roof, and that even more stringent tolerances may be required. The purchaser can always specify more stringent requirements than those of the standard. It shouldn’t be necessary to add this text.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>#</td>
<td>Voter/ Commenter</td>
<td>Company</td>
<td>Section No. (e.g. 3.1)</td>
<td>Type of comment</td>
<td>Comment (justification for change)</td>
<td>Proposed Change</td>
<td>Comment Resolution</td>
</tr>
<tr>
<td>---</td>
<td>-----------------</td>
<td>---------</td>
<td>------------------------</td>
<td>-----------------</td>
<td>-----------------------------------</td>
<td>-----------------</td>
<td>------------------</td>
</tr>
<tr>
<td>5</td>
<td>Randy Kissell</td>
<td>TGB Partnership</td>
<td>5.5.1</td>
<td>Technical</td>
<td>The problem cited in the ballot background is that 653's radial tolerances are more stringent than 650's. However, the ballot does not directly address this, but rather leaves it to the purchaser to address this on each tank. And if the purchaser does address this according to the ballot by invoking the data sheet options, these options are still different from 653 in that they specify only limited places at which radial tolerances must comply.</td>
<td>Add to 5.5.3: “Radius tolerances measured higher than 0.3 m (1 ft) above the shell-to-bottom weld shall not exceed three times the tolerances measured 0.3 m (1 ft) above the shell-to-bottom weld.”</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Douglas Miller</td>
<td>Chicago Bridge &amp; Iron Company (CB&amp;I)</td>
<td>5.5.1</td>
<td>Editorial</td>
<td>The revisions to 5.5.1 need to be coordinated with agenda item 650-582. Both agenda items are working on the same section.</td>
<td>I suggest that you either combine this item with 650-582 or else only show the final sentence of 5.5.1 in this agenda item since that is the only one this item changes and 650-582 is working on the other sentences of 5.5.1.</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>John Schroeder</td>
<td>Marathon Ashland Petroleum LLC</td>
<td>affirmative</td>
<td>Other</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>James McBride</td>
<td>Petrex, Inc.</td>
<td>Item 17 on Data Sheet</td>
<td>Technical</td>
<td>Negative comment: The statement “…shell-to-bottom weld shall not exceed three times the tolerances…” could be taken to mean greater than or less than since the tolerances are plus or minus. I do not think that this is the intent.</td>
<td>Change the word &quot;exceed&quot; to &quot;be greater than&quot;.</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Michael Richardson</td>
<td>International Paper</td>
<td>Proposal</td>
<td>Technical</td>
<td>The proposed change could be more flexible to the customer, particularly if the customer would like to use tighter tolerances or more measuring locations. I would suggest the following change:</td>
<td>… These tolerances may be waived, modified as specified in the data sheet or established by agreement between the purchaser and the manufacturer.</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Thomas Lorentz</td>
<td>AEC Engineering, Inc.</td>
<td>Tank Data Sheet</td>
<td>Editorial</td>
<td>The elevation for measuring radial tolerance in section 5.5.3 and the proposed modification to the tank data sheet differ in metric conversion rounding.</td>
<td>Modify the tank data sheet elevation for radial tolerance measurement from 0.32 m above bottom, to 0.3 m (1 ft) as stated in section 5.5.3.</td>
<td></td>
</tr>
</tbody>
</table>