

MINUTES

PTI DC-80 Repair, Rehabilitation & Strengthening Committee

Thursday, October 5, 2017

1:00 PM to 5:00 PM

CasaMagna Marriott Cancún Resort - Atlanta, GA

Voting Members Present (_ of 17)

- | | |
|------------------------------|--|
| Tracy Naso, Chair | Wiss, Janney, Elstner Associates, Inc. |
| Hamid Ahmady | Suncoast Post-Tension, Ltd. |
| James Beicker | J.L. Beicker Company |
| Cory Brett | SGH |
| Genmiao (Jimmy) Chen | Parsons Brinkerhoff |
| James Donnelly | Wiss, Janney, Elstner Associates, Inc. |
| Clyde Ellis | VSL |
| Christopher Fulton | Halsall |
| Liao Haixue | Vector Corrosion Technologies |
| Gabriel Jimenez | Walter P. Moore |
| Don Kline | Kline Engineering & Consulting, LLC |
| John Mancuso | Sutton, Kennerly & Associates |
| Richard Mitchell | Vector Corrosion Technologies |
| Daniel Moser | Walker Parking Consultants |
| Douglas Sarkkinen | Otak |
| Slava Tkachuk | Ready Cable, Inc. |
| Edgar Zuniga, TAB Contact, V | Dywidag-Systems International, USA, Inc. |
| Amy Dowell, NV | PTI Staff |

Associate Members Present

- | | |
|---------------------|--|
| Noli Alarcon | Timothy Haahs and Associates, Inc. |
| Garth Fallis | Vector Corrosion Technologies |
| Roger Frenn | DSI |
| Hee-Taik Lee | Korea Institute of Nuclear Safety |
| Ralf Leistikow | Wiss, Janney, Elstner Associates, Inc. |
| Sivakumar Munuswamy | Thronton Tomasetti, Inc. |
| Torry Oram | Smid Construction |
| Daniel Rosa | Vector Corrosion Technologies |
| Otto Schwarz | Ryan Biggs Clark Davis Engineering and Surveying, P.C. |
| Hanif Shariff | Read Jones Christofferson, Ltd. |

Visitors Present

ACTION ITEMS FROM LAST / THIS MEETING

| Item # | Subject | Action | Responsible | Deadline / Completed |
|--------|------------------------|--------------------------------|-------------|----------------------|
| 1 | FAQ: Making Inspection | Update photos, ballot revision | Naso | 6/5/17 Resolve |

| | | | | |
|-----|--|--|----------------|------------------------------|
| | Recesses | | | negatives in 10/5/17 meeting |
| 2 | FAQ: Testing force in existing tendons | Draft revisions | Ahmady | |
| 3.1 | Guide for External PT | Forward text for PT Manual Chapter for coordination | Kline / Moser | Next few months |
| 3.2 | Guide for External PT | TG to develop document TG = Kline, Moser, Donnelly, Fallis, Schwarz, Puri | Kline / Moser | |
| 4.1 | PTT Terminology | Draft proposed revisions and send to DC-80 for review | Mitchell | |
| E.1 | Sheathing repair tape technical note | Draft survey of tape types used in industry and distribute | Brett / Dowell | |
| E.2 | Sheathing repair tape technical note | TG to draft document: Cory Brett, Ralf Leistikow, Chris Fulton, Jim Donnelly and Dan Moser | TG | |

| Agenda Item | Expected Outcome / Actions Taken |
|---|---|
| A. General A.1 Call to Order: A.2 Introductions A.3 Committee Roster / Changes A.4 PTI Antitrust Policy A.5 Annual Report | A.1 |
| B. Agenda & Minutes B.1 Approval of Agenda B.2 Approval of Minutes from 10/6/16 (Meeting ballot required) | B.2 Vote on Minutes approval from 10/6/16 Motion / Second: Result: x-x-x (Y-N-A) |
| C. Actions Taken Between Meetings C.1 Letter Ballots (1701) C.2 Web Meetings (none) | C.1 Ballot 1701 – PT Strand Investigation Recess FAQ |
| 1. Action Item 1: (Guide Specification for Repair) 1.1 Respond to TAB Comments | 1.1 Respond to TAB Comments (Attachment 1.1) |

| Agenda Item | Expected Outcome / Actions Taken |
|--|---|
| <u>2. Action Item 2: (FAQ: Making Inspection Recesses)</u> 2.1 Resolve negatives | 2.1 Resolve negatives from Ballot 1701 (Attachment 2.1). |
| <u>3. Action Item 3: (FAQ: Testing Force in Existing Tendons)</u> 3.1 update | 3.1 Update |
| <u>4. Action Item 4: (Guide for Strengthening of Concrete Structures by Means of External Post-Tensioning)</u> 4.1 Update | 4.1 Update (on hold waiting for new PT Manual chapter from Kline / Moser) |
| <u>5. Action Item 5: (Repair Terminology)</u> 5.1 Update | 5.1 Update / Mitchell |
| <u>6. Action Item 6: (Testing force in existing tendons TN)</u> 6.1 Update | 6.1 Update / Ahmady |
| <u>7. Action Item 7: (Sheathing Repair Tape TN)</u> 7.1 Sheathing repair tape technical note | 7.1 Update |
| <u>E. New Business</u> 1 Webinar module based on repair guide E.2 Review of documents and identification of those in need of revision | E.1 Identify topics and form TG with anticipated schedule for each module. Suggested modules include basic investigation and case studies E.2 PTI DC80.1-02 Controlled Demolition of an Unbonded Post-Tensioned Concrete Slab PTI DC80.2-10 Creating Openings and Penetrations in Existing Slabs with Unbonded PT PTI DC80.3-12 Guide for Evaluation and Repair of Unbonded Post-Tensioned Concrete Structures |

| Agenda Item | Expected Outcome / Actions Taken |
|---|---|
| E.3 Discuss possible Technical Session topics / presenters | E.3 discuss possible contributions to the Technical Sessions from the committee members or their associates |
| F. <u>Next Meeting</u> 2018 PTI Convention, - Minneapolis, MN – May 6-9, 2018 Web Meetings: | |
| G. <u>Adjourn</u> | |

AGENDA / MEETING EXHIBITS

| Exhibit # | Subject |
|--------------|---------------------------------------|
| Roster / A.4 | Sign-In Sheet / PTI Anti-Trust Policy |
| A.5 | Annual Report |
| 1.1 | Ballot 1701 Summary |
| | |

Committee DC-80: Repair, Rehabilitation, & Strengthening Committee

Chair Tracy Naso

Date 10/1/17

1. List the progress on goals of your committee during last year:

| 2016/2017 Goals | | Progress |
|-----------------|---|--|
| 1 | DC80.4-xx: Guide Repair Specification – resolve negatives on final ballot and forward to TAB for compliance check | DC-80 to resolve TAB comment |
| 2 | FAQ: Sheathing Repair – respond to TAB comments | Published 9/2017 |
| 3 | Compile a list of repair-specific terminology used in PTI documents and send to TAB for consideration in the PTT | Richard Mitchell / Update? |
| 4 | FAQ: Making Inspection Recesses | Jim Donnelly / Update? |
| 5 | FAQ: Testing Force in Existing Tendons | Hamid Ahmady / Update? |
| 6 | TN: Test Protocol for Repair Tapes | Brett / Update? |
| 7 | Guide for Strengthening of Concrete Structures by Means of External Post-Tensioning | Kline, Moser / after drafting of PT Manual Chapter |

2. List at least three goals for the upcoming year. Note – all goals are subject to TAB/CAB Approval:

| 2017-2018 Goals (New documents, revisions of documents, convention presentations or sessions, PTI Journal case studies, research proposals, PT Treasures or Technical Papers, etc.) | | Tasks Champion / Expected Completion Date |
|--|--|--|
| 1 | Compile a list of repair-specific terminology used in PTI documents and send to TAB for consideration in the PTT | Mitchell / Update |
| 2 | FAQ: Making Inspection Recesses | Donnelly / Update |
| 3 | FAQ: Testing Force in Existing Tendons | Ahmady / Update |
| 4 | TN: Test Protocol for Repair Tapes | Brett / Update |
| 5 | Guide for Strengthening of Concrete Structures by Means of External Post-Tensioning | Kline, Moser / Update |
| 6 | Develop webinar modules on repair investigation and case studies | TBD in meeting / Update |
| | | |

3. Report detailed progress on already approved document revisions / new documents / technical sessions / PTI Journal Contributions / certification program development, etc.:

| Title | Progress in Last 12 Months | Task Champion / Expected Completion Date |
|---------------------------------|---|--|
| FAQ: Making Inspection Recesses | Balloted after Atlanta meeting, resolving negatives in Cancun. Expected to be ready for TAB review by end | Donnelly / End of 2017 |

| Title | Progress in Last 12 Months | Task Champion / Expected Completion Date |
|--|----------------------------|--|
| | of 2017 | |
| FAQ: Testing Force in Existing Tendons | | Ahamdy / Update? |

4. List new and updated documents you expect to submit to TAB/CAB for review in the next 12 months:

| Document Title | Document Champion / Expected Completion Date |
|---|--|
| Recommendation for repair-specific terminology in the PTT | Mitchell / Update |
| FAQ: Making Inspection Recesses | Donnelly / Update |
| FAQ: Testing Force in Existing Tendons | Ahmady / Update |
| TN: Test Protocol for Repair Tapes | Brett / Update |
| | |

5. List old documents needing revision.

| Document Number / Title | Notes | Task Champion / Expected Completion Date |
|--|--|--|
| PTI DC80.1-02: Controlled Demolition of an Unbonded Post-Tensioned Concrete Slab | Committee to assign TG at Cancun meeting to investigate and update if needed | |
| | | |

6. List subjects for FAQs and / or TNs that would reflect "PTI Position" on issues

| Subject | Notes | Task Champion / Expected Completion Date |
|------------------------------------|---|--|
| TN: Test Protocol for Repair Tapes | TN to update out of date Research Update listing repair tapes. Many are out of production and new products are available, but have not been tested. | Brett |
| | | |

7. List Technical Session ideas

| Topic / Brief Synopsis | Presenter |
|------------------------|-----------|
| | |
| | |

8. List any liaisons or scope conflicts with other committees in PTI or other organizations:

9. List anything you need from PTI Staff:

Please return to: Miroslav Vejvoda
E-mail: miroslav.vejvoda@post-tensioning.org

| | | | |
|--|------------------------|--------------------|---------------|
| PTI Committee: TAB – Technical Advisory Board | Ballot-TAB-1704 | Ballot Start Date: | May 25, 2017 |
| Document Title: DC-80 Repair Specification | | Ballot End Date: | June 25, 2017 |

| Ballot Item # | Page # | Line # | Comment: G / T / E* | *G = General T = Technical E = Editorial | Comments and Proposed Solutions | Proposed Comment Resolution |
|---------------|--------|--------|---------------------|--|---|-----------------------------|
| 1 | | | | | In the Proposed Response ballot item 1 shows that the DC80 voting was Y/N/A as 9/3/0. I didn't see anywhere the Negatives and resolutions. | |
| 9 | | | | | In section 1.2 References - B.5. : The #9 comment from TAB indicates inserting "ACI 423.4R-14 Report on Corrosion and Repair of Unbonded Single-Strand Tendons" but the document now indicates ACI 432.4R. I am not that familiar with ACI documents but which number is correct? It could easily be a typo error in either document. | |
| 77 | | | | | <p>Resolution of bullet item 77 recognizes that restoration of sheathing is not required if hardware is contained in a watertight enclosure before stressing. The new document does not reflect the resolution as well as does not fully address initial comment. New document:</p> <ul style="list-style-type: none"> • Page 9/10 section 3.4 item G states that openings must stay open during stressing "leave boxouts". This is not always the case as for safety reasons, the couplers can be stressed after concreting as long as the coupler is encased in a watertight enclosure and can move within that enclosure • Page 9/10 section 3.4 item L talks only about heat shrinks (no mention of watertight enclosure), as well as heat shrinks placed after stressing (nothing for before stressing if coupler is embedded in concrete). • Page 6 section 2.3 item F: only heat shrinks are mentioned. Need to mention other alternatives <p>Proposed resolution: add text to reflect the above.</p> | |