

**CORRUGATED STEEL PIPE INSTITUTE
TECHNICAL ADVISORY COMMITTEE
Memorandum of Meeting**

8:30 A.M. Monday June 15th, 2015 – Niagara-on-the-Lake, Ontario

Present:

Kevin Williams (Chair)	Atlantic	Byron Nelson	Leland
Bruce Matheson	Frontier	Chris Groot	ES Hubbell
Dave Watson	Leland	Mike Mounts	Valfilm
Randy McDonald	Armtec	Dave Penny	CSPI
Kamran Derayah	ArcelorMittal	Ray Wilcock	CSPI
Ian Berry	Warner		

Absent:

Jim Evans	AK Steel	Lyndsay Dokas	Armtec
Shane Setter	Ironside	Phil Carroll	Atlantic

Guests:

Mike Wilson	Atlantic	Janine Yetke	Armtec
Stephen MacKinnon	Atlantic	Bob Rohr	ACI
John Tran	AMD	Doug Lowry	Armtec

1. Welcome and Opening Remarks

Kevin Williams opened the meeting at 8:30am. Go-To-Meeting was not used for this meeting. Attendance was taken and is recorded above.

2. Review Minutes from April 29th, 2014

Minutes were reviewed and a motion for approval was made by **Kamran**, second by **Kevin**.

3. MTO / MTQ Structures Task Force

a) MTO Design Guidelines

The guidelines are now in place as confirmed by Maria Bianchin (MTO). She will advise how many design build projects will be tendered in 2015. Ray will be visiting Maria in July.

Stephen reported that Canada Culvert is using the CSPI protocol and may be referring to CSPI in their literature. **Stephen will investigate what they are promoting and advise CSPI who will take action if they are claiming to be a member.**

Dave gave an update on his recent visit to BCMOT. BC is aware of the MTO spec.

Action: Update the CSA (original) Protocol to reflect the changes in CSA G401-14 and insert a clause that it is CSPI property for members only. CSP specification update to also include a means of addressing polymer laminate (and potentially AL2) lockseam

damage. Determine costs from CWB and BNQ to arrange for CWB and BNQ to sign off on this document. Notify the committee of quotes. Start discussions with Art Groenveld of MTO to address the OGPDG and duplicating the certification clause that is in the SPCSP spec. General theme is to promote the CSP and SPCSP specification changes, the manufacturing certification and how that improves quality, and the value of CSPI to owners.

b) Bolts & Bolted Seams – Abrasion / Corrosion Testing

Kevin displayed a working draft of technical guidelines for alternatively coated bolts. He stated that 3rd party review would be required. He discussed the need for matching 75 year material service life in accordance with Tech Bulletin #13. He covered the three tests that have been completed:

- 1) Salt Spray Corrosion
- 2) Abrasion
- 3) Kesternich

There was great deal of discussion on Kesternich with regards to relating the number of cycles to service life. Byron stated that it is not feasible. Mike Mounts expanded on how the polymer laminated process worked. He stated that the polymer left after tests were run, was added to the life of galvanized and extrapolated to come up with an overall service life. Stephen suggested relating cycles to the Galvanized bolt by a multiplier effect. Dave suggested that given the results of salt spray and Kesternich, we compare to the existing spec and move forward on getting these bolts into the specification. He suggested 35 cycles and move forward.

In salt spray, the Leland bolts surpassed the 3,000 hour mark or 10 times greater than HDG. Bob Rohr mentioned that at 1,500 hours, polymer laminated has had no issues in over 25 years. Dave discussed the resistivity of salt water in the range of 100-300 ohm-cm. He suggested we publish a table using HDG as the benchmark.

In the abrasion tests, Kevin stated that the Leland bolts meet levels 1 & 2; however in level 3 the longitudinal bolts be moved out of the water line. Leland advised they have developed another top coat which they believe will address the previous poor abrasion test result on the DB/DS2000 bolts. Testing is expected to be completed in a couple months.

Action: Kevin & Randy to meet within the next month to bring this to a decision on whether to proceed with adapting an alternatively coated bolt performance specification into the specifications.

c) CSA Certification of Structural Steel Plants

The final draft was reviewed by Quasar and received a sign off. Both Atlantic and Armtec have completed their review and signed off. Plants will need to be certified at the latest by August 1st.

Action: Send out the final version to the Committee.

4. NFLDOT Structures

Members have signed off on draft wording. Ray will be visiting NFLD in July along with NB DOT. Doug Power agreed to CSPI visiting to review specification, along with a presentation to DOT staff. Specification wording will be sent to Doug prior to the visit. Mike Wilson asked Ray to promote the CSPI member only clause to Doug.

5. Polymer Laminated Research Project – Alberta Trans

5 year project – next site visit will be August 2015.

Visits with BCMOT, MTQ & MTO, revealed the perception of delamination issues at the seams. When asked if these were new installations or old, they did not know. Perception or reality, nevertheless perception exists in many provinces.

Action: Form a sub-committee to draft a procedure for the manufacturing of polymer laminated steel. Ray to lead and committee will consist of talking to the 4 manufacturers, Shane from Ironside, Mike from Valfilm and Bob from ACI. Dave suggested that we incorporate this into the CSP CSA Plant Protocol. Kevin asked what the NCSA are doing about this. Ray spoke with Mike McGough today, and they have nothing, however would like to participate. Future discussion: there is the potential to incorporate a work instruction for AL2 ends as well.

6. Steel Drainage Handbook Update

No change from last meeting. This will be looked at in the late fall / winter time frame.

7. Transportation Research Board

Kevin mentioned that there will be a webinar on buried bridges. He will notify when it is scheduled.

8. ASTM Update

There was no CSPI attendance at the ASTM spring meeting in California in June. Plans are to attend the fall meeting in Tampa.

Kevin commented on ASTM A796 – working through a comment from Contech. Also noted a future ballot will take place on A761 once AIL's flange is published. The future ballot will clean up industry concerns regarding connection terminology.

9. Fish Ladder Presentation – MTO Opportunity

Dave gave an overview of this project with MTO / First Nations. This project is presently out for tender. It is a jack and bore with half round polymer coated fish baffles. It is restricted to CSPI members only.

10. Discussion / New Business

a) AREMA (American Railway Engineering & Maintenance of Way Association)

Nothing to report.

b) CSCC (Canadian Steel Construction Council)

A buildings sub-committee is putting together a plan to tackle the wood and concrete industries. The plan is to be more aggressive.

c) Ontario Gravity Pipe Design Guidelines Webinar

Ray will be visiting MTO in July and will schedule the webinar this fall if and when Art is able to go.

d) In the Trenches Release

Release 5 – planning is underway. This was covered in the PPC meeting.

e) Ideas for new Technical Bulletins

The idea of “rehabilitation of inverts” using the methods in that are used in Sweden brought up last meeting, have received zero responses from Viacon and Nordic Culvert thus far. CSPI will continue to try.

Jim spoke about the NCSA guide to “Assessing the pipe in the field” He stated that there is a checklist for sales reps to use in the field that helps showcase what material works in what jurisdiction. Dave stated that this would dovetail very nicely with our “Seeing is Believing” maps. Jim stated that the checklist is on the last three or four pages of the 60 year durability study.

Dave suggested a technical bulletin on bolts once the decision is made.

Action: Member section only for the NCSA guide. Ray to include on the website and notify all when posted.

f) Research Projects

For future considerations:

- 1) Elimination of rerolled ends
- 2) Aluminized Type II – ends splitting – Chris suggested that all CSPI members work as a team on this one. Kevin suggested that due to being in the busy season for all, to keep this in the minutes for fall review.
- 3) Yukon – CSP in permafrost. Seams are being welded to prevent splitting. We need a better understanding of permafrost to be able to come up with a recommendation for the north. Resources to call on are Phil and Ellery Chornopyski who have experience in these conditions.

g) New Business

Nothing.

11. Adjourn & Next Meeting

The meeting was adjourned at 10:05 a.m. Next meeting scheduled for late summer / early fall at the Cambridge office.

Secretary
Ray Wilcock