

TECHNICAL ADVISORY COMMITTEE Memorandum of Meeting

10:00 A.M. Wednesday June 17th, 2020 – WEBEX

Committee Members Attending:

Nick Spence (Chair)	Atlantic	Dave Watson	Leland	
Jason Sherwood	Atlantic	Jim Evans	AK Steel	
Randy McDonald	Atlantic	lan Berry	Warner	
Phil Carroll	Atlantic	Mike Mounts	Valfilm	
Scott MacRae	Armtec	Marc Warden	Hubb-Cap	
Heba Ahmed	Armtec	Todd Gray	ACI	
Bruce Matheson	Frontier	Derek Niezen	Ironside	
Kamran Derayeh	AMD	Ray Wilcock	CSPI	
Byron Nelson	Leland			
Committee Members Absent:				
Kevin Williams	Atlantic	Mike McGough	NCSPA	
Members Attending:				
Jason Johnston	Armtec	Lynn Riley	Valfilm	
Dave Newbigging	AMD			

1. Welcome and Opening Remarks

Nick opened the meeting at 10:00 a.m. and welcomed everyone. Attendance was taken and is recorded above.

2. Review Minutes from April 8th, 2020 and Approve

Minutes were reviewed and a motion for approval was made by <u>Kamran Derayeh</u>, second by <u>Mike Mounts</u>.

3. Outstanding Items to Complete

a) Bolt & Nut 3rd round of testing with MTQ (Ray)

Update:

- MTQ reported all tests have been completed for both abrasion & corrosion
- MTQ was waiting on base and top coating information before releasing report
- Met with Armin Hadzidedic from Atotech and Byron and Al from Leland
- Coordinated response information sent on May 28th
- Expect to hear back soon / will follow up before June month end
- Post Atotech's report on the member website (Byron agreed)

b) Rehabilitation White Paper release (Kevin)

- Release expected for 2nd Q. Will be posted to the website proceed with the technical bulletin.
- Nick will follow up with Kevin to determine publication date.

c) MTO – Structural Plate Standards Advancement – prioritize (Nick / Ray)

Issues to prioritize:

- Structural planning guidelines 2 years to update
- Financial analysis of products rehab / repair / maintenance of SP is unknown by MTO
- Design build tenders key is to shorten the amount of SP options
- Design guideline CSPI can take the lead on developing
- Rehabilitation white paper very interested in the Queen's report & presentation
- Kris Mermigas will be a key contact going forward educate on materials / service life
- EPD on SP very interested on cradle to grave
- NZF3000 bolts to be submitted once CSA G401 is approved and published
- Address with Walter Kennedi (Tony's replacement) QVE responsibility similar to OGPDG
- Changing the name from Buried Culverts to Structures need proper definition

Discussion:

- Nick suggested we choose those which are partially to completed such as the rehabilitation white paper
- Heba stated that many are a huge under taking and our lack of resources prohibits CSPI from moving forward / suggestion was made to contract out to 3rd party for structural planning and design guidelines
- Scott was asked about including the design guidelines in the Handbook update and responded to keep it generic and not specific to MTO
- Action put list in a table with time lines, details required for the committee to review for next meeting

d) Galvalume – final white paper from Pete Ault / TB #1 (Kamran / Ray)

- White paper circulated to committee prior to meeting for comment / approval to proceed with next steps.
- Kamran gave an update since the last meeting. Recommends that we accept the white paper from Pete Ault and proceed to updating Tech Bulletin #1. All agreed.
- Galvalume test sites in Algonquin Park ON & Port Alberni BC Kamran suggested Ray visit those sites every 2 years. Discussion at future meeting.
- From last meeting Resistivity strips have been found and will be ordered for future water testing. Nick commented on writing a spec for water testing. A possible ASTM spec.

• Action: Update Technical Bulletin #1 line and bar charts and circulate to the committee prior to next meeting

e) Bay of Fundy & Cabot Trail polymer coated sites – future visit (Ray)

Dates to be determined one travel restrictions ease.

Site visit to cover:

- Abrasion 4 or tidal waters, ice conditions?
- Water velocity, chemistries, grade of pipe, fish passage design?
- Inlet control to protect sediment from entering pipe. Characterize the upstream water feeding the pipe, sediment load.
- Send pictures to lan.
- Find out more information and root causes of the abrasion. Work with Roger Leger.
- Bay of Fundy (AIL), Cabot Trail (Armtec)
- Nick to share any information he has on the Bay of Fundy site

Discussion:

- Ian: Access roads not available at this time, thus visit will depend upon the future pandemic release. Nick stated that if able, Julien Cassie Sales Rep (AIL) will visit the Bay of Fundy site.
- Phil: Pictures are important to determine bedload / velocity
- Ray will contact Roger Leger with regards to the Cabot Trail site

From last meeting:

• Phil: Port Hardy (Armtec structure) site to visit – similar abrasion issues. Future visit for site inspection next time in B.C.

f) AT – Bridge inspection guidelines sub-committee (Bruce / Phil / Ray)

Members

Bruce Matheson	Frontier	Phil Carroll	Atlantic
Ron Prychitko	Armtec	Richard Fleming	Atlantic
Jesse Harrow	Armtec	Ray Wilcock	CSPI

- Met three times since May 5th
- Methods used by inspector's are inconsistent.
- Varying levels of experienced and expectations of inspectors.
- Inconsistent requirement of welding of the visible cross-section seam run-outs on stepbeveled ends are not specified.
- Inconsistent measuring devices being used which have produced erroneous results
- Pipes getting re-inspected once on site (or even installed).
 Final inspection reports are not always shared with manufacturers.

Meeting highlights:

- All documents were reviewed AT, CSPI, MIT, etc.
- Jesse has done a great job in putting together a spreadsheet checklist and inspection guidelines to accompany (used an MPA consultant's list)

- Committee has critiqued, edited, added changes, etc.
- Met on June 12th to finalize spreadsheet and guidelines

Next steps:

- 1. Once the inspection checklist and guidelines are signed off by the TAC committee, approach MPA and obtain sign off.
- 2. Suggestion was made to photograph or film the inspection for future training with AT to be discussed at a later date.
- 3. Once the inspection checklist and guidelines are signed off by the committee, approach AT with the offer to present with follow up inspector training.

Discussion:

- Bruce: sees this as a good test step to determine if AT will accept and adopt. Past experience with AT sheds some doubt
- Phil: MPA lends credibility
- Action: attach checklist and guidelines to these minutes

From last meeting:

• Communicate to AT a letter of concern on the difference between storing (concave down) and shipping of plates (concave up) for safety reasons. Armtec & AIL to participate. Send letter to Dave Besuyen and cc Des Williamson & John Alexander.

4. Long Term Items

a) ASTM A742 update (Mike Mounts / Kamran)

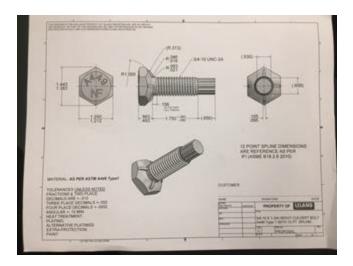
- Mike: Lighter polymer laminate ACI is using a 6 mils film if required by customers to become more competitive with HDPE (savings of 20 – 30%). NCSPA is looking at testing (6 – 9 months). Depending upon the results, a new ASTM spec may be initiated.
- Todd mentioned that it is not a replacement but a complimentary material.
- Mike: "Quality Assurance Testing on Polymer Laminated Steel" Mike showed a slide illustrating the tests that are done on every steel coil in accordance with ASTM A742. This includes mandrel bend, impact, coating thickness, holidays, and additional test on edge adhesion. Mike did a boiling test for 30 minutes and other than the material going soft, no other issues. Both coaters have tried salt spray testing with good success in the past.
- Todd: freeze thaw test is performed if required by the customer

b) Thermopolymer plate in brackish/salt water in three sites – (Ray)

There are three sites requiring a review (1 in BC, QC & NS) in 2020. QC site set up on September 6th. Site visits to be determined in the future.

c) Bolt & Nut Research update (Byron)

Covered in 3 a) above for MTQ.



Discussion:

- Byron: tool adapter for impact wrench scheduled for May is now July / August.
- Nick has yet to receive sample bolts (may be a mix up in locations)
- Scott received.
- Testing to be conducted by members as soon as tools are received.
- Marc suggested to Byron if help with manufacturing is required, they have facilities

d) Green Handbook update (Scott to discuss next steps - RFQ / 3rd party)

Update:

- Possible future addition of climate change section
- Scott sent an email to Steve MacKinnon and Dave Penny to gauge interest in participating. No response as of yet

e) Priority Projects as voted by the board

- 1) EPD comparison to concrete with AGÉCO (Ray / Stan)
- Kick off meeting held on April 1st
- 2-month review by AGECO
- Met on June 8th report issued
- Next step is critical review by LCA committee (signed off by Stan)
 - Chair
 - Steel expert
 - Concrete expert
- 1.5 months of critical review
- Final report end of July

Discussion:

• Manufacturing members encouraged to look for improvements and start tracking EPD information for future update. Annual renewal with 5-year update. Spreadsheet for

tracking sent to all manufacturers. Multiple plant manufacturers encouraged to average all plants.

- Jason S: asked what % of GHG's come from manufacturers (85% to producers and transportation, 15% to manufacturers)
- Include polymer laminators and coaters
- Structural plate manufacturers encourage to start tracking inputs and outputs for future EPD project

2) CSA quote update (Ray)

Funding of \$45,000 available. Once committee has signed off on updates, will seek quote from CSA.

f) Municipal Strategy – storm sewer issues to address

- 1) Storm sewer market is 300mm -600mm. Spiral rib starts at 450mm.
- 2) Reservation with steel connections to concrete and plastic
- 3) Joints water tightness required
- 4) Case studies required showing connections to residential projects.

Discussion:

- 1) Nick mentioned this is a tooling issue, thus outside the scope of the committee
- Information / education is required technical bulletin? Phil mentioned inserted tees and that we need to educate on service connections. Randy stated that there is a supplier in Barrie who can supply.
- 3) Technical bulletin on joining systems. Sliding scale based upon openings. Randy stated that water tightness requires a CSA test / certification.

Action: Ray, Randy & Phil to work on information for a service connection bulletin.

5. Ongoing Items

a) ASTM – specification for water testing (Kevin / Mike / Ray)

May meetings were conducted using WEBEX on May 11th & 12th.

b) NCSPA update (Mike)

- Mike: Certification of plants by state #1 issue at this time
- Jim: Two task forces were set up 1) polymer on lighter gauge 2) Aluminized Type II on SWM systems, soil side issues in show pitting / staining looking at best practices

c) TAC spring meetings / September conference (Ray)

- Attended the en^v and standing structures committee meetings in April via WEBEX
- CSPI's paper "Climate Change Everyone's Business Impact of Construction Products" has been accepted for the TAC virtual online conference in in September.

d) TRB update (Nick)

No update

e) CSA G401 update (Randy)

Update:

Randy: put together a summary (list of 100 items) of the updates. Will be distributed to the committee with these minutes. Next meeting TBD July time frame

f) AREMA (Mike)

Nothing to report.

g) CSCC Canadian Steel Construction Council (Ray)

Byron & Ray attended the annual and board meetings on June 11th. Due to lack of funding from AISI, there was a motion to dissolve the association. It passed, thus CSCC is no longer. The main purpose of this council is "codes and standards" for the building code. The CSSBI and CSCI have brought this work in house. Over the years, benefits to the CSPI were steel narrative and relationships.

h) AISI News (all)

Attended a Sustainability Council meeting. One issue that arose was concerning the Federal government of Canada's proposal to list Zinc and its Compounds and Copper and its Compounds under CEPA Schedule 1 (toxicity). A letter from CSPI has been put together to be signed by our President "Jason Sherwood) to the Minister opposing same. To be discussed at the board meeting. AMD leading this with all associations in tow.

6. Discussion / New Business

- a) FP Innovations Report
- Phil: Port Alberni site should be visited in the future. Post to website.
- b) TB on fish baffles/ types / etc.
- Future discussion
- c) Installing a geomembrane over structures / pipes
- NCSPA has agreed to work with us on this. To be discussed at next meeting.

7. Adjourn & Next Meeting at the call of the chair

The meeting was adjourned at 12:10pm. Next meeting at the call of the chair.

Nick Spence Chair Ray Wilcock Executive Director