

AASHTO SUBCOMMITTEE ON MATERIALS

MINUTES

Technical Section 4g Concrete Reinforcement

Conference Call / Online Meeting March 21, 2013

1. Call to order
2. Attendance

<u>Name</u>	<u>Agency</u>	<u>Email Address</u>
Jim Schoen	Nucor-Yamato Steel	jschoen@nucor-yamato.com
Merrill Zwanka	SC DOT	zwankame@scdot.org
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David Lipscomb	WV DOT	
George Hanna	WV DOT	George.N.Hanna@wv.gov
Dean Krouse	ASTM Liaison	DCKrouse@aol.com
Bill Bailey	VA DOT	Bill.Bailey@VDOT.Virginia.gov
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Heidi Helmink	Bekaert	heidi.helmink@bekaert.com
Chris Abadie	LA DOTD	Chris.Abadie@LA.GOV
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Justin Morris	LA DOTD	Justin.morris@la.gov
Alton Booth	LA DOTD	alton.booth@la.gov
Brian Johnson	AMRL	bjohnson@amrl.net
Ed Harrigan	NCHRP	EHARRIGA@nas.edu
Evan Rothblatt	AASHTO	erothblatt@ashto.org
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Danny Lane	TN DOT	danny.lane@tn.gov
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Georgene Geary	GA DOT	ggeary@dot.ga.gov
Ron Horner	ND DOT	rhorne@nd.gov

3. Approval of the minutes for the March 27, 2012 conference call / meeting
TS 4f and 4g for 2012. Motion to approve-ND, 2nd GA – Motion passed.

Old Business

4. 2012 SOM ballot items

None

5. 2012 Technical Section ballot items

None

6. Task Force Reports

- 6.1. Task Force 2010-01: Markings on reinforcing steel – especially for anti-corrosion and stainless steel bars. Review the specifications and requirements for bar markings - recommendations for markings on these types of bars. Virginia, CRSI, and Industry. **No interest in Industry to participate. Virginia would like to be the champion. CRSI is willing to participate in the discussion but don't like to dictate to the manufacturers. Not much discussion at ASTM. Push back is from the stainless industry due to the number of different alloys and coming up with a marking for each type of stainless would be difficult.**
- 6.2. Task Force 2011-01: Investigate corrosion resistant steel and MP 18M/MP18. Definitions need clarifying and method of corrosion measurements needs to be established. Virginia (Babish), CRSI, Illinois, FHWA, Louisiana (Wintz), Pennsylvania, and South Carolina. **Virginia would like to pursue the changes proposed that were sent earlier and send out as a tech section ballot. Incorporate stainless with corrosion resistance and with a way to test corrosion resistance. Also incorporated a method to test the type of steel we are getting in the field. Go forward with a TS ballot. VA motions that after TS ballot with updates after the ballot that we will go forward with a full Subcommittee ballot. Discussion held concluded that this motion could not go forward without 1st knowing the results of a TS ballot. Jack indicated before we could send to SOM that we would need to have another TS meeting to discuss to send to SOM. VA revises motion to go to TS ballot before conference call. 2nd NJ. VA is industry to see the ballots. We can send Industry the ballot for their information and comment. Motion passed. After the TS ballot a conference call with all interested parties will be held to discuss the comments received from the ballot and to look at combining both Task Forces.**

New Business

7. AMRL/CCRL Issues.

Brian Johnson does not have anything to bring up but invited comments on their current practice with evaluations.

8. NCHRP Issues

9. Correspondence, calls, meetings.

10. Proposed New Standards / Standard Assignments

10.1. Update on Standards

Technical Section 4g Concrete Reinforcement - February 2013 Status								
AASHTO (2012 32nd Edit.)	ASTM (Equiv.) (2012 32nd Edit.)	CURRENT ASTM (February 2013)	DESCRIPTION	Comments	Reconfirm Date **	Precision/Bias Statements	ASSIGNMENT	Category
M 31M / M 31-10 (2011)	A615 / A615M-09 *	A615 / A615M-12	Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement		2015	None	Illinois	B
M 32M / M 32-09	A82 / A82M-07	A82 / A82M-07	Steel Wire, Plain, for Concrete Reinforcement		2013	None	Texas	B
M 54M / M 54-07 (2012)	A184 / A184M-06e1	A184 / A184M-06 (2011)	Welded Deformed Steel Bar Mats for Concrete Reinforcement		2016	None	New Jersey	B
M 55M / M 55-09	A185 / A185M-07	A185 / A185M-07	Steel Welded Wire Reinforcement, Plain, for Concrete		2013	None	Illinois	B
M 203M / M 203-12	A416 / A416M-10	A416 / A416M-12a	Steel Strand, Uncoated Seven-Wire for Concrete Reinforcement		2016	None	AMRL (Uherek)	B
M 204M / M 204-06 (2010)	A421 / A421M-05	A421 / A421M-10	Uncoated Stress-Relieved Steel Wire for Prestressed Concrete		2014	None	Illinois	B
M 221M / M 221-09	A497 / A497M-07	A497 / A497M-07	Steel Welded Wire Reinforcement, Deformed, for Concrete		2013	None	AMRL (Uherek)	B
M 225M / M 225-09	A496 / A496M-07	A496 / A496M-07	Steel Wire, Deformed, for Concrete Reinforcement		2013	None	North Dakota	B
M 254-06 (2010)	-----	-----	Corrosion-Resistant Coated Dow el Bars		2014	None	AMRL (Breth)	A
M 275M / M 275-08	A722 / A722M-07	A722 / A722M-12	Uncoated High-Strength Steel Bars for Prestressing Concrete	Send out TS balot summer/fall 2012 or vote at annual meeting	2012	None	Pennsylvania	B
M 277-06 (2010)	-----	-----	Wire Rope and Sockets for Movable Bridges		2014	None	Georgia	A
M 322M / M 322-10	A996 / A996M-09	A996 / A996M-09b	Rail-Steel and Axle-Steel Deformed Bars for Concrete Reinforcement		2014	None	Maryland	B
M329M / M329-11	-----	-----	Stainless Clad Deformed and Plain Round Steel Bars for Concrete Reinforcement		2015	None	FHWA	A
T 253 -02 (2011)	-----	-----	Coated Dow el Bars		2015	None	Georgia	A
T 285-89 (2010)	-----	-----	Bend Test for Bars for Concrete Reinforcement		2014	None needed - pass/fail test	Idaho	A
MP 18M / MP 18-09 (2010)	-----	-----	Uncoated, Corrosion-Resistant, Deformed and Plain Alloy, Billet-Steel Bars for Concrete Reinforcement and Dow els	Adopted 2009 and extended 2011. Ballot again 2013, 2015, 2016, then 2017 make full or discontinue.	2013	None	Nevada	A
R 53-10	-----	-----	Qualification of Deformed and Plain Reinforcing Steel Bar, Welded Wire, and Wire Producing Mills	No longer needed for NTPEP use	2014	None	South Carolina	A

* Denotes that some differences exist betw een AASHTO and ASTM. Based on 32nd Edition

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** Date show n is the summer or fall that the ballot should be sent out or vote taken at the annual meeting. If reconfirmed then it w ill be printed in the next year's edition.

11. Proposed new task forces

12. Standards Requiring Reconfirmation or Provisional Standards Requiring Extension,

12.1. Standards Requiring Reconfirmation

- 12.1.1. M 32M / M 32-09, Steel Wire, Plain, for Concrete Reinforcement – **Send to TS.**
- 12.1.2. M 55M / M 55-09, Steel Welded Wire Reinforcement, Plain, for Concrete – **Send to TS.**
- 12.1.3. M 221M / M 221-09, Steel Welded Wire Reinforcement, Deformed, for Concrete – **Send to TS.**
- 12.1.4. M 225M / M 225-09, Steel Wire, Deformed, for Concrete Reinforcement – **Send to TS.**
- 12.1.5. M 275M / M 275-08, Uncoated High-Strength Steel Bars for Prestressing Concrete. – **The Chair has received comments from PA recommending some changes on this standard beyond what ASTM is doing. The Chair determined**

that he would send this standard for reconfirmation and then look at making changes afterwards. Possible Task Force?

12.2. Provisional Standards Requiring Extension

12.2.1. MP 18M / MP 18-09 (2010), Uncoated, Corrosion-Resistant, Deformed and Plain Alloy, Billet-Steel Bars for Concrete Reinforcement and Dowels
Previously discussed in 6.0 Task Forces of this agenda, see page 2 of these minutes.

13. 2013 Subcommittee Ballot

13.1. Standard review for equivalency with ASTM

13.1.1. M31M / M31-10 (2011) equivalency with A615 / A615M-12

13.1.2. M54M / M54-07 (2012) equivalency with A184 / A184M-06 (2011) – **Just reconfirmed. Just need to update reference.**

13.1.3. M203M / M203-12 equivalency with A416 / A416M-12a

13.1.4. M204M / M204-06 (2010) equivalency with A421 / A421M-10

13.1.5. M275M / M275-08 equivalency with A722 / A722M-12

13.1.6. M322M / M322-10 equivalency with A996 / A996M-09b

Have or may have had changes. Sent to stewards and have received some comments. Plan to put out an Equivalency TS ballot. GA pointed out that this could go to concurrent ballot item. Mainly reconfirmed, revised tables to match and editorial changes. Motion to send to concurrent ballot. – LA, 2nd GA. Motion- passed.

13.2. Standards requiring reconfirmation in 2013

14. Presentations by industry

14.1. Update on ASTM activities by CRSI.

ASTM – Items A 615 and A 706 ballots to allow mixed T bundles, motion did not pass, will be re-balloted with modification.

A 965 – ballot to changes the elongation grade from 20% to 16%? – motion did not pass so will have to be re-ballot.

15. Other items

15.1. Possible International or Domestic Scans.

15.2. NCHRP Problem Statements, Synthesis studies, 20-7 projects

NCHRP Statements due by July 1st. 20-7 projects have to be in by early April.

15.2.1. PCI research project on strand bond. Round robin testing using the Standard Test for Strand Bond protocol from NCHRP Report 603 (Appendix I) that describes the test.

The test protocol ASTM A 1081 is approved but does not have a repeatability or acceptance criteria. Completed ruggedness testing. Round robin testing is now underway with Method A per ASTM and Method B with a constant w/c and constant sand. Mortar strength within 22 hours? Nine labs participating. Test method is not as easy to conduct as it would seem. Small batches create a scaling issue in relation with production batches. Curing is also an issue with cubes versus cylinders. Some labs are experiencing cement issues and getting strengths. After round robin testing, the researchers do plan to do some beam tests. Anticipate completion in 1st quarter 2014. LA volunteered to participate – is LA still on schedule to participate – yes, currently scheduled for April 8th – 11th.

- 15.3. Merging of four ASTM Standards into a single standard. ASTM A82, A496, and A497 have been merged into ASTM A1064. Need to discuss direction forward for AASHTO with M32, M55, M221, and M225.

April 2012 survey responses (32 states responded):

1. M32 vs A82, Steel Wire, Plain, for Concrete Reinforcement
 - a. M32 (63%)
 - b. A82 (37%)
2. M55 vs A185, Steel Welded Wire Reinforcement, Plain, for Concrete
 - a. M55 (72%)
 - b. A185 (28%)
3. M221 vs A497, Steel Welded Wire Reinforcement, Deformed, for Concrete
 - a. M221 (73%)
 - b. A497 (27%)
4. M225 vs A496, Steel Wire, Deformed, for Concrete Reinforcement
 - a. M225 (64%)
 - b. A496 (36%)
5. Drop /create equivalent single spec/Leave as individual and maintain?
 - a. Drop AASHTO and use A1064 (46%)
 - b. Create an equivalent combined standard (36%)
 - c. Leave standards as individual and maintain (18%)

The survey was inconclusive. The ASTM standards are going away. They have been replaced with ASTM A 1064. The Chair expressed an interest to push forward with a TS ballot. GA would propose to go with Option b – Create an equivalent combined standard. GA does suggest letting ASTM know what we are doing. GA proposed hiring a consultant to combine these and have AASHTO let ASTM know what our intentions are. Chair needs to formally request the needed assistance from AASHTO for the need of a consultant to combine these standards and to communicate with ASTM. NJ spoke in favor with creating the equivalent since 36% of the survey wanted an AASHTO equivalent. Motion to combine the current AASHTO standards into one standard with

recognition by ASTM as a joint standard. – NJ with modification by GA 2nd LA. Motion – passed.

- 15.4. Steel fibers for concrete reinforcement are currently specified under ASTM A820 but industry would like for AASHTO to consider having its own standard. The ASTM standard is general and not performance based. Per the committee's suggestion, Ms. Heidi Helmink of Bekaert prepared a draft standard in AASHTO format and submitted it to the chairman for review and forwarding to AASHTO.

Draft has been reviewed and revised. Ran into some copyright issues with ASTM but those issues have been cleared up so this proposed standard does appear ready now to send to TS ballot. Chair plans to send to TS Ballot.

- 15.5. NTPEP has combined the standard practice for several manufacturer audit programs (rebar, HDPE pipe, and PVC pipe) into one standard practice for the NTPEP audit programs. The standard practice covers the general details that are common among all audit programs and then each individual material type has its own work plan. For this reason NTPEP is no longer using AASHTO R53, Qualification of Deformed and Plain Reinforcing Steel Bar, Welded Wire, and Wire Producing Mills.

NTPEP is currently using NTPEP document SP01-13, *Qualification of Highway Product Manufacturers Through the Use of NTPEP Audits* along with NTPEP Committee Work Plan RS-13, *Evaluation of Reinforcing Steel Manufacturers*. Katheryn indicated that the intent is to make this document an AASHTO standard. Do we want to discontinue R53? The Chair understands that a different entity is working on this issue. The Chair suggested that he send survey to see if anyone is using this standard. Motion to concurrent ballot to discontinue with the provision that a new standard will eventually be incorporated - GA. 2nd NJ. Motion passed.

16. Other business

17. Adjourn