

SUBCOMMITTEE ON MATERIALS
TECHNICAL SECTION 4h
CASTINGS AND NONFERROUS METALS
Webinar – March 24, 2015 – 1:00 PM Eastern
Minutes

I. Call to Order and Opening Remarks

Chair: Matt Mueller Matthew.Mueller@illinois.gov

Vice Chair: Woody Hood whood@sha.state.md.us

II. Roll Call

Present	Agency	Name	Email	Designation	Type
x	Florida DOT	Steve Duke	Steve.duke@dot.state.fl.us	Member	Voting
	Georgia DOT	Peter Wu	pwu@dot.ga.gov	Member	Voting
	Kansas DOT	Rick Kreider	rickk@ksdot.org	Member	Voting
x	Illinois DOT	Matt Mueller	Matthew.Mueller@illinois.gov	Chair	Voting
	Maine DOT	Richard Bradbury	Richard.Bradbury@maine.gov	Member	Voting
x	Maryland DOT	Woody Hood	whood@sha.state.md.us	Vice Chair	Voting
x	New Jersey DOT	Eileen Sheehy	eileen.sheehy@dot.nj.gov	Member	Voting
x	South Carolina DOT	Merrill Zwanka	zwankame@scdot.org	Member	Voting
	Vermont DOT	William Ahearn	bill.ahearn@state.vt.us	Member	Voting
x	Virginia DOT	William Bailey	bill.bailey@vdot.virginia.gov	Member	Voting
x	AASHTO	Henry Lacinak	hlacinak@aaashto.org	Liaison	Non-Voting
x	AMRL	Maria Knake	mknake@amrl.net	Member	Non-Voting
	AMRL	Steve Lenker	slenker@amrl.net	Member	Non-Voting
	AMRL	Christopher Breth	cbreth@amrl.net	Member	Non-Voting
	AMRL	Gregory Uherek	guherek@amrl.net	Member	Non-Voting

III. Approval of Technical Section Minutes – Webinar TS 4h Meeting Minutes, March 24, 2014

Minutes approved (VA / NJ)

IV. Assign Standards

AASHTO Designation	ASTM	ASTM revision	Title	Steward
M 103M/M 103-12	A27-10	A27-13	Steel Castings, Carbon, for General Application	IL
M 105-09 (2013)	---		Gray Iron Castings	VA
M 111M/M 111-15	A123-13		Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products	MD
M 163M/M 163-07 (2012)	A743-06	A743-13	Castings, Iron-Chromium, Iron-Chromium-Nickel, Corrosion Resistant, for General Application	IL
M 232M/M 232-10 (2015)	A153-09		Zinc Coating (Hot-Dip) on Iron and Steel Hardware	NJ
M 285M/M 285-11 (2015)	A744-10	A744-13	Castings, Iron-Chromium-Nickel, Corrosion Resistant, for Severe Service	IL
M 306-10 (2015)	---		Drainage, Sewer, Utility, and Related Castings	VA
T 65M/T 65-13	A90-11	A90-13	Mass [Weight] of Coating on Iron and Steel Articles with Zinc or Zinc-Alloy Coatings	IL
T 213M/T 213-11 (2015)	A428-10 (2014)		Mass [Weight] of Coating on Aluminum-Coated Iron or Steel Articles	NJ

V. Old Business

A. SOM Ballot Items
SOM-14-02

- i. **Item 104** – M111M/M111-14, Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
 - Revision to match the revision of ASTM A 123/A 123M-13 (45-0-8) – 1 comment from Andy Babish of VA (see below)

Agency (Individual Name)		Decision
Virginia Department of Transportation (Charles A. Babish) (andy.babish@vdot.virginia.gov)	ASTM A123-13 uses the word "Material" in Table 1, not "Product".	Affirmative

Rationale for modification from "Material Category" to "Product Category" in SOM-14-02, Item 104

On the previous TS ballot revision of M111, the following negative vote was submitted by Illinois DOT-Matt Mueller Matthew.mueller@illinois.gov

The ballot calls for revision of Table 1 of M111M by creating a new category for plate rather than including it with structural shapes. However, the title of the table which refers to a "material category", and the column in the table called "material category", is incorrect. Each of these products have substantial variations in material composition, ranging from as low as 0.03% carbon to 0.26% carbon for plate and up to 0.85% carbon for rail steel rebar, with silicon contents from 0.01% up to 0.40%. These elements substantially change product properties and influence the thickness, composition and surface quality of hot-dip zinc coatings. As such, the products do not represent a "Material Category" at all, because their compositions are so variable for each category of structural shapes, bars, plates, pipe, wire and rebars.

The title of the table should be "Table 1-Mimumin Average Coating Thickness Grade by Product Category", and the first column heading in the table should be "Product Category".

Because no technical meanings are changed, this change is editorial, and the negative can be withdrawn upon editorial change.

Table 1—Minimum Average Coating Thickness Grade by ~~Material~~ Product Category

Material-Product Category	All Specimens Tested, Steel Thickness Range (Measured), in. [mm]					
	$<^{1/16}$ [<1.6]	$^{1/16}$ to $<^{1/8}$ [1.6 to <3.2]	$^{1/8}$ to $^{3/16}$ [3.2 to 4.8]	$^{3/16}$ to $<^{1/4}$ [>4.8 to <6.4]	$\geq^{1/4}$ to $<^{5/8}$ [≥ 6.4 to <16.0]	$\geq^{5/8}$ [≥ 16.0]
Structural Shapes and Plate	45	65	75	85 75	100	100
Strip and Bar	45	65	75	85 75	100 75	100
Plate	45	65	75	75	75	100
Pipe and Tubing	45	45	75	75	75	75
Wire	35	50	60	65	80	80
Reinforcing Bar	—	—	—	—	100	100

B. TS letter ballots

- i. **SOM_TS 4h-15-01** – Reconfirmation Ballot
 1. M 232M/M 232-10(2015), Zinc Coating (Hot-Dip) on Iron and Steel Hardware
 - Reconfirmation approved (9-0-1) – no comments

2. M 285M/M 285-11(2015), Castings, Iron-Chromium-Nickel, Corrosion Resistant, for Severe Service
 - Reconfirmation approved (9-0-1) – no comments
3. M 306-10(2015), Drainage, Sewer, Utility, and Related Castings
 - Reconfirmation approved (9-0-1) – no comments
4. T 213M/T 213-11(2015), Mass [Weight] of Coating on Aluminum-Coated Iron or Steel Articles
 - Reconfirmation approved (9-0-1) – no comments

C. Task Force Reports

No existing task force established.

VI. New Business

A. Research Proposals

B. AMRL/CCRL Issues

C. NCHRP Issues

D. Correspondence, calls, meetings/ Presentation by Industry

Wall size on castings may develop into future concerns. NJ has survey out regarding downsizing of castings. Results will be forwarded to members of TS 4h.

E. Proposed New Standards

F. Proposed New Task Forces

G. Standards Requiring Reconfirmation

- i. M 103M/M 103-12, Steel Castings, Carbon, for General Application
Note: ASTM **A27-10** revised to **A27-13**
- ii. M 163M/M 163-07(2012), Castings, Iron-Chromium, Iron-Chromium-Nickel, Corrosion Resistant, for General Application
Note: ASTM **A743-06** revised to **A743-13**

H. SOM Ballot Items (including any ASTM changes) – Steward to determine if revision is needed.

- i. M285M/M285-11(2015), Castings, Iron-Chromium-Nickel, Corrosion Resistant, for Severe Service – Check ASTM revision of **A 744-10** to **A744-13**.
- ii. T65M/T65-13, Mass [Weight] of Coating on Iron and Steel Articles with Zinc or Zinc-Alloy Coatings – Check ASTM revision of **A 90-11** to **A90-13**.

Motion by NJ, seconded by VA to forward recommended revisions by the steward to M 103, M 163, M 285 and T 65 to full SOM ballot if Tech Section ballot is returned with no negatives or substantial comments. Otherwise, chair will call for additional webinar or conference call if needed prior to going to SOM ballot.

VII. Open Discussion

ASTM A 706 reinforcing bar – No AASHTO companion standard (IL, CA, SC, WA utilize A 706 rebar) Merrill Zwanka – may be more appropriately handled in TS 4f

VIII. Adjourn