American Wood Protection Association
Protecting Wood Since 1904

23F-P3-HSH

AWPA Technical Committee P-3
Fall 2023 Standardization Cycle

AWPA Standard HSH-18

23F-P3-HSH: Proposal to Reaffirm HSH with no changes

Proponent(s): Craig McIntyre

Committee Meeting Action: Unanimously authorized for letter ballot as SUBMITTED.

Letter Ballot Results:

Executive Committee Final Action:

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▼ID	Item	Proposed Change	Committee Status
1436	AWPA HSH 18	**Additional Comment:** Reaffirm without Revisions	

AWPA Technical Committee P-3
Fall 2023 Standardization Cycle

AWPA Standard P1/P13-19

23F-P3-P1P13: Proposal to Revise and Reaffirm P1/P13 with minor changes.

Proponent(s): Stacey McKinney

Committee Meeting Action: Authorized for letter ballot as SUBMITTED with all in favor except one.

Letter Ballot Results:

Executive Committee Final Action:

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<table>
<tr><th>ID</th><th>▲Item</th><th>Proposed Change</th><th>Committee Status</th></tr>
<tr><td>1447</td><td>AWPA P1/P13 19 SECTION STANDARD FOR CREOSOTE PRESERVATIVE [Table Data]</td><td>
<table>
<tr><th>Preservative Code</th><th>CR</th><th>Description of the Preservative</th><th>Application Method/Use Pattern</th><th>Acceptable Carriers/Diluents</th></tr>
<tr><td>Preservative Name</td><td>Creosote Preservative</td><td>Coal tar distillate</td><td>Vacuum-pressure treatment</td><td>Not applicable</td></tr>
</table>
<table>
<tr><th colspan="6">Preservative Composition & Physical Chem. Requirements of New Material & Material in Use in Treating Solutions</th></tr>
<tr><td colspan="2">Composition</td><td colspan="4">The creosote shall be a distillate derived entirely from tar produced by the carbonization of bituminous coal</td></tr>
<tr><td colspan="2" rowspan="2"></td><td colspan="2">New Material</td><td colspan="2">Material in Use</td></tr>
<tr><td>Not Less Than</td><td>Not More Than</td><td>Not Less Than</td><td>Not More Than</td></tr>
<tr><td colspan="2">Water Content [% by volume]</td><td>-</td><td>1.5</td><td>-</td><td>3.0</td></tr>
<tr><td colspan="2">Matter Insoluble in Xylene [% by weight]</td><td>-</td><td>0.5</td><td>-</td><td>1.5</td></tr>
<tr><td>Specific Gravity @ 38°C [compared to water @ 15.5°C]</td><td>Whole Creosote</td><td>1.070</td><td>-</td><td>1.070</td><td>-</td></tr>
<tr><td rowspan="5">Distillation: The distillate, % by wt. on a water free basis shall be within the following limits</td><td>Up to 210°C</td><td>-</td><td>2.0</td><td>-</td><td>2.0</td></tr>
<tr><td>Up to 235°C</td><td>-</td><td>12.0</td><td>-</td><td>12.0</td></tr>
<tr><td>Up to 270°C</td><td>10</td><td>40</td><td>10</td><td>40</td></tr>
<tr><td>Up to 315°C</td><td>40</td><td>65</td><td>40</td><td>65</td></tr>
<tr><td>Up to 355°C</td><td>65</td><td>77</td><td>65</td><td>77</td></tr>
<tr><td colspan="6">Treating Solution Requirements</td></tr>
<tr><td colspan="6">See section Preservative Composition</td></tr>
<tr><td colspan="6">Analytical Methods</td></tr>
<tr><td colspan="6">[Only major analytical methods are listed. Refer to the AWPA BOS for additionally applicable standards]</td></tr>
<tr><td colspan="2">Preservative</td><td colspan="4">AWPA Standard A52, A53, 54, A55, A57~~A1 06~~</td></tr>
</table>
</td><td></td></tr>
</table>

		Enforcement	
		Historical	Title amended in 1999, 2000, and 2001. Reformatted in 2009
		Reaffirmation	2000, 2001, 2006, 2013, 2019
		Amendments	1999, 2000, 2001, 2013, 2016
		Attachment(s): *Creosote P-3 Reaffirmation Proposal Fall 2023 Final.pdf*	

AWPA Technical Committee P-3
Fall 2023 Standardization Cycle

AWPA Standard P2-19

23F-P3-P2: Proposal to Revise and Reaffirm P2 with minor changes.

MODIFIED BY PROPONENT PRIOR TO MEETING

Proponent(s): Stacey McKinney

Committee Meeting Action: Authorized for letter ballot as SUBMITTED with all in favor except two.

Letter Ballot Results:

Executive Committee Final Action:

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▼ID	Item	Proposed Change	Committee Status

1446 AWPA P2 19 SECTION STANDARD FOR CREOSOTE SOLUTION [Table Data]

Preservative Code	CR-S	Description of the Preservative	Application Method/Use Pattern	Acceptable Carriers/Diluents
Preservative Name	Creosote Solution	Coal tar distillate or a solution with coal tar	Vacuum-pressure treatment	Not applicable

Preservative Composition & Physical Chem. Requirements of New Material & Material in Use in Treating Solutions

Composition	The material shall be a pure coal tar product derived entirely from tar produced by the carbonization of bituminous coal. It may • either be a coal tar distillate or • a solution of coal tar in coal tar distillate

		New Material		Material in Use	
		Not Less Than	Not More Than	Not Less Than	Not More Than
Water Content [% by volume]		-	1.5	-	3.0
Matter Insoluble in Xylene [% by weight]		-	3.5	-	4.5
Specific Gravity @ 38°C [compared to water @ 15.5°C]	**Whole Creosote**	1.080	1.130	1.080	1.130
Distillation: The distillate, % by wt. on a water free basis shall be within the following limits	**Up to 210°C**	-	5.0	-	5.0
	Up to 235°C	-	25.0	-	25.0
	Up to 315°C	32.0	-	32.0	-
	Up to 355°C	52.0	-	52.0	-

Treating Solution Requirements

See section Preservative Composition

Miscellaneous

References	AWPA Proceedings 1917, 1918, 1921, 1923, 1933, 1935, 1936, 1941, 1942, 1947, 1953, 1954, 1957, 1958, 1968, 1985, 1989, 1995, 1998, 2001

		Analytical Methods [Only major analytical methods are listed. Refer to the AWPA BOS for additionally applicable standards]	
		Preservative — AWPA Standard ~~A1-06~~A52, A53, A54, A55, A57	
		Enforcement	
		Historical — Amended in 1998 to remove, without prejudice due to lack of use and obsolescence, a coke residue requirement. Reformatted in 2009.	
		Reaffirmation — 1995, 1999, 2001, 2006, 2013, 2019	
		Amendments — 1998, 2013, 2016	
		Attachment(s): *2023 AWPA Data Package Appendix A reduce file size2.pdf*, *Creosote P-3 Reaffirmation Proposal Fall 2023 Final.pdf*	

AWPA Technical Committee P-3
Fall 2023 Standardization Cycle

AWPA Standard P3-19

23F-P3-P3: Proposal to Revise and Reaffirm P3 with minor changes.

MODIFIED BY PROPONENT PRIOR TO MEETING

Proponent(s): Stacey McKinney

Committee Meeting Action: Authorized for letter ballot as SUBMITTED with all in favor except two.

Letter Ballot Results:

Executive Committee Final Action:

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ID	▲Item	Proposed Change	Committee Status

1445 AWPA P3 19 SECTION STANDARD FOR CREOSOTE PETROLEUM SOLUTION [Table Data]

Preservative Code	CR-PS	Description of the Preservative	Application Method/Use Pattern	Acceptable Carriers/Diluents
Preservative Name	Creosote-Petroleum Solution	Mixture of coal tar distillate and petroleum oil	Vacuum-pressure treatment	See section Preservative Composition

Preservative Composition & Physical Chem. Requirements	
Composition of Solution	Creosote: Min. 50% Petroleum: Max. 50%
Composition of Creosote	According to Preservative Standard 'CR' or 'CR-S'. When 'CR-S' is used, matter insoluble in xylene shall not exceed 0.5%.
Composition of Petroleum Oil	According to Solvent Standard HSH
Treating Solution Requirements	
See section Preservative Composition	
Miscellaneous	
Due to the limited accuracy of quantifying Creosote in Creosote-Petroleum Oil Solutions the purchaser may wish to obtain the materials separately and have them blended under their supervision	
Analytical Methods [Only major analytical methods are listed. Refer to the AWPA BOS for additionally applicable standards]	
Preservative	AWPA Standard A22, A52, A53, A54, A55, A57
Enforcement	
Historical	Reformatted in 2000, 2001, 2009
Reaffirmation	2000, 2001, 2006, 2013, 2019
Amendments	2014

Attachment(s): *2023 AWPA Data Package Appendix A reduce file size2.pdf*, *Creosote P-3 Reaffirmation Proposal Fall 2023 Final.pdf*

1444	AWPA P3 19 PARA 2	Creosote-Petroleum Solution (CPS) shall consist solely of specified proportions of Creosote conforming to AWPA Standard P1/P13 or AWPA Standard P2 and of Petroleum Oil conforming to AWPA Standard HSH. Attachment(s): *Creosote P-3 Reaffirmation Proposal Fall 2023 Final.pdf*	

AWPA Technical Committee P-4
Fall 2023 Standardization Cycle

AWPA Standard P32-19

23F-P4-P32: Proposal to Revise P32 with minor changes.

Proponent(s): Doug Arnold

Committee Meeting Action: Unanimously authorized for letter ballot as SUBMITTED.

Letter Ballot Results:

Executive Committee Final Action:

Note: The information presented below shows only the proposed revisions for this standard in legislative format and/or any other actions to be taken by the committee, such as creation of a new standard or reaffirmation or withdrawal of an existing standard. To view the rationale and supporting data (if any) for each proposed revision, as well as to submit comments or questions, you must visit the AWPA Standards Development Platform - https://awpacommenting.edaptivedocs.org (member login required).

<table>
<tr><th>▼ID</th><th>Item</th><th>Proposed Change</th><th>Committee Status</th></tr>
<tr><td>1471</td><td>AWPA P32 19 SECTION STANDARD FOR COPPER AZOLE TYPE B (CA B) [Table Data]</td><td>
<table>
<tr><td>Preservative Code</td><td>CA-B</td><td>Description of the Preservative</td><td>Application Method/Use Pattern</td><td>Acceptable Carriers/Diluents</td></tr>
<tr><td>Preservative Name</td><td>Copper Azole - Type B</td><td>Waterborne preservative, Alkali-based (amine/ammonia)</td><td>Vacuum-pressure treatment</td><td>Water</td></tr>
<tr><td colspan="5">Preservative Composition & Physical Chemical Requirements</td></tr>
<tr><td colspan="2">Composition on a 100% Active Basis</td><td colspan="3">Copper as Cu: 96.1%
Azole as Tebuconazole: 3.9%</td></tr>
<tr><td colspan="2">Purity Criteria – Actives</td><td colspan="3">The treating solution shall contain bivalent copper and tebuconazole derived from materials in excess of 95 percent purity on an anhydrous basis.</td></tr>
<tr><td colspan="2">Essential Formulants</td><td colspan="3">The copper component shall be dissolved in solutions of ethanolamine and/or ammonia in water. In ethanolamine solutions, the weight of ethanolamine shall be 3.5 ± 0.2 times the weight of copper. In ammonia solutions, the weight of the ammonia shall be at least 1.25 times the weight of copper.

<s>In dilute treating solutions, the mix ratio of copper from ethanolamine to copper from ammonia shall be not less than 1:1. The required ratio of the individual solvents to the copper will be reduced in proportion to the mix ratio.</s>

Azoles shall be stabilized in the solution with proprietary surfactant(s).

To aid in dissolution of copper, carbonate expressed as CO_2 shall be added in at least 0.31 times the weight of copper.</td></tr>
<tr><td colspan="5">Treating Solution</td></tr>
<tr><td colspan="2">Tolerances</td><td colspan="3">Work Solution Tolerances on a 100% Active Basis

Component Minimum Maximum
Copper as Cu: 95.4% 96.8%
Azole as Tebuconazole: 3.2% 4.6%</td></tr>
</table>
</td><td></td></tr>
</table>

	The composition of the treating solution in use may deviate outside the limits specified above provided A) The preservative retention in treated material is determined by assay and the retention so determined conforms to the requirements specified in the tables in Section 3 of AWPA Standard T1 B) Immediate action is taken to adjust the composition of the treating solution
Limitations	**pH:** None
	Temperature: None, except as limited under Standard UCS T1
Analytical Methods [Only major analytical methods are listed. Refer to the AWPA BOS for additionally applicable standards]	
Concentrate/Solutions	Cu: AWPA A9, A21 Azole: AWPA A28, A31
Wood	Cu: AWPA A9, A21 Azole: AWPA A31
Committee Recommendations	
Minimum Retentions	Committee P-4 recommended the following minimum retentions: UC1 to UC3B—0.10 pcf (1.7 kg/m^3), UC4A to UC4B—0.21 pcf (3.3 kg/m^3), UC4C—0.31 pcf (5.0 kg/m^3), and UC4C Foundation, Land and Fresh Water Piling—0.41 pcf (6.6 kg/m^3).
Enforcement	
Historical	Adopted in 2008 (formerly AWPA Standard P5 No. 18 – Included into the BOS 2002)
Reaffirmation	2008, 2013, 2019
Amendments	2010, 2013, 2015

Attachment(s): *P32 data package final.pdf*

American Wood Protection Association
Protecting Wood Since 1904

23F-P4-P33

AWPA Technical Committee P-4
Fall 2023 Standardization Cycle

AWPA Standard P33-18

23F-P4-P33: Proposal to withdraw P33 without prejudice.

Proponent(s): Craig McIntyre

Committee Meeting Action: Unanimously authorized for letter ballot as SUBMITTED.

Letter Ballot Results:

Executive Committee Final Action:

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▼ID	Item	Proposed Change	Committee Status
1358	AWPA P33 18	**Additional Comment:** Withdraw Standard	

AWPA Technical Committee P-5
Fall 2023 Standardization Cycle

AWPA Standard A18-18

23F-P5-A18: Proposal to Revise A18 with minor changes.

Proponent(s): Nelson Wanggui

Committee Meeting Action: Unanimously authorized for letter ballot as SUBMITTED.

Letter Ballot Results:

Executive Committee Final Action:

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ID	▲Item	Proposed Change	Committee Status
1408	AWPA A18 18 SECTION 2.1	2.1 Safety Precautions: Review the commercial SDS for the reagents used in the procedure and follow recommended safety precautions. As with any laboratory procedure, appropriate personal protective equipment (PPE) should be worn. As a minimum, safety glasses and compatible gloves are recommended.	
1410	AWPA A18 18 SECTION 2.1	**2.2**~~**1**~~ An anionic surfactant (sodium lauryl sulfate) is titrated with a standard cationic surfactant (Hyamine 1622) in a chloroform/water 2-phase system. A cationic dye (dimidium bromide) and an anionic dye (erioglaucine) are used in the system to visually determine the end point. When the anionic surfactant is in excess, a pink chloroform soluble complex is formed with the cationic dye. In the titration, Hyamine 1622 forms a more stable complex with the anionic surfactant and displaces the cationic dye from the anionic surfactant/dye complex and from the chloroform phase. The first excess of Hyamine 1622 reacts with the anionic dye (erioglaucine) to form a blue colored chloroform soluble complex. Quaternary ammonium compounds are cationic surfactants. The determination is based on back titration. A sample aliquot is added to the sodium lauryl sulfate solution. The excess sodium lauryl sulfate is determined by titration with Hyamine 1622.	
1409	AWPA A18 18 SECTION 4.1.1	4.1.2 Sodium lauryl sulfate 0.004M is also commercially available from Cole-Parmer VV-78916-97 or equivalent.	
1411	AWPA A18 18 SECTION 4.2.1	4.2.2 Hyamine 1622 0.004M is commercially available from Millipore Sigma cat# 1.15480 or equivalent.	

AWPA Technical Committee P-5
Fall 2023 Standardization Cycle

AWPA Standard A21-22

23F-P5-A21: Proposal to Revise A18 with addition to precision statement.

Proponent(s): Ryan Sturdivant

Committee Meeting Action: Unanimously authorized for letter ballot as SUBMITTED.

Letter Ballot Results:

Executive Committee Final Action:

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▼ID	Item	Proposed Change						Committee Status
1466	AWPA A21 22 SECTION 13.1.2 [Table Data]	Matrix	Element	Expressed as	Wood Concentration %	Confidence Limits Repeatability (r)	Confidence Limit Reproducibility (R)	
		Copper Based Woods	Copper	Cu	0.09	0.0086	0.010	
					0.25	0.018	0.039	
					0.59	0.057	0.067	
					1.12	0.11	0.13	
					1.37	0.14	0.26	
			Arsenic	As_2O_5	0.18	0.015	0.046	
					0.60	0.070	0.16	
					1.17	0.11	0.26	
					2.16	0.37	0.64	
		ACZA Woods	Copper	CuO	0.49	0.055	0.079	
					1.63	0.20	0.26	
					2.95	0.28	0.29	
					5.45	1.18	1.18	
			Zinc	ZnO	0.21	0.032	0.066	
					0.69	0.081	0.16	
					1.36	0.16	0.34	
					2.55	0.43	0.78	
			Phosphorus	P	0.76	0.14	0.34	
					1.13	0.11	0.44	
					1.29	0.10	0.48	
		Fire Retardant Woods			2.01	0.15	0.71	
			Boron	B	0.10	0.014	0.024	
					0.15	0.014	0.035	
					0.17	0.014	0.036	
					0.26	0.021	0.057	
		The above precision statement is based on round robin data from 4 laboratories, 9 test results, and 3 or 4 materials for each matrix and thus does not meet the minimum requirements set forth in ASTM E691-18. Materials were tested covering the concentration ranges listed. They were prepared using AWPA Standard A7-22 Digestion Method #2.						

Matrix	Element	Expressed as	Concentration %	Confidence Limit Repeatability (r)	Confidence Limit Reproducibility (R)
ACZA Solutions	Arsenic	As_2O_5	0.06	0.0068	0.024
			0.13	0.0074	0.012
			0.49	0.028	0.049
			1.16	0.051	0.11
	Copper	CuO	0.25	0.016	0.056
			0.48	0.028	0.089
			1.18	0.11	0.24
			2.30	0.13	0.33
	Zinc	ZnO	0.07	0.0057	0.011
			0.15	0.012	0.021
			0.60	0.058	0.066
			1.44	0.12	0.14
Fire Retardant Solutions	Phosphorus	P	0.82	0.051	0.088
			1.25	0.077	0.12
			1.64	0.10	0.16
			2.09	0.14	0.23
	Boron	B	0.11	0.0084	0.010
			0.16	0.013	0.020
			0.21	0.016	0.025
			0.27	0.021	0.033
	Copper	CuO	0.18	0.0079	0.031
			0.45	0.028	0.072
			0.68	0.038	0.089
			0.98	0.047	0.13
CCA Solutions	Chromium	CrO_3	0.47	0.028	0.050
			1.18	0.072	0.14
			1.78	0.11	0.26
			2.56	0.16	0.33
	Arsenic	As_2O_5	0.36	0.014	0.027
			0.90	0.048	0.079
			1.35	0.076	0.14
			1.93	0.11	0.20

The above precision statement is based on round robin data from 4 laboratories, 9 test results, and 4 materials for each matrix and thus does not meet the minimum requirements set forth in ASTM E691-18. Materials were tested covering the concentration ranges listed.

AWPA Technical Committee P-5
Fall 2023 Standardization Cycle

AWPA Standard A30-18

23F-P5-A30: Proposal to Revise A30 with numerous changes.

Proponent(s): Ryan Sturdivant

Committee Meeting Action: Unanimously authorized for letter ballot as SUBMITTED.

Letter Ballot Results:

Executive Committee Final Action:

Note: The information presented below shows only the proposed revisions for this standard in legislative format and/or any other actions to be taken by the committee, such as creation of a new standard or reaffirmation or withdrawal of an existing standard. To view the rationale and supporting data (if any) for each proposed revision, as well as to submit comments or questions, you must visit the AWPA Standards Development Platform - https://awpacommenting.edaptivedocs.org (member login required).

ID	▲Item	Proposed Change	Committee Status
1400	AWPA A30 18 SECTION 2.2	**2.2** Wood meal samples are extracted in methanol using an ultrasonic bath. Solution samples are diluted with methanol. The filtered extracts and prepared solutions are analyzed by HPLC with UV detection at ~~275~~280 nm.	
1401	AWPA A30 18 SECTION 6.4	**6.4** DCOI Analytical standard solution, 20~~25~~% DCOI (available from Lanxess Corporation~~The Dow Chemical Company~~)	
1402	AWPA A30 18 SECTION 7.1	**7.1** 400 ppm Stock Standard – Accurately weigh 200~~160~~ mg (to nearest 0.1 mg) of a 20~~25~~% DCOI analytical standard into a 100 ml volumetric flask and dilute to volume with methanol. Correct the amount of analytical standard for the actual purity and calculate the concentration (µg/ml) of active ingredient (AI) for this standard.	
1403	AWPA A30 18 SECTION 8.1.2.3	**8.1.2.3** Weigh 200-300 mg of the well mixed sample into a glass screw top vial and record the weight to the nearest 1 mg.	
1404	AWPA A30 18 SECTION 8.1.2.4	**8.1.2.4** Add 20~~25~~ ml of methanol by volumetric pipette and screw the caps on tightly. Place the vial in an ultrasonic bath and sonicate 1 hour. Allow the mixture to cool and settle after extraction.	
1405	AWPA A30 18 SECTION 8.2.2.3	**8.2.2.3** Allow the sample to cool, dilute to volume, cap and invert several times to mix well.	
1406	AWPA A30 18 SECTION 9.1.1 [Table Data]	Solvent program: Time (min) %A %B 0 17 83 10 17 83 10.5 0 100 12.5 0 100 13 17 83 17 17 83 (Linear Gradients) Wavelength: 280~~75~~ nm Injection Volume: 20 µl	

1407 AWPA A30 18 SECTION 11.2 [Table Data]

V_c = Volume of N cores
N = Number of cores
l = length of the wet cut assay section
r = bit radius
d = wood density
W_c = weight of the cores after drying

1458 AWPA A30 18 SECTION 14.0 PARA 1

The following statements and tables should be used to judge the acceptability of an analysis using this method. The precision data were developed following the guidelines in ASTM E691 ~~guidelines using six laboratories~~.

1456 AWPA A30 18 SECTION 14.3 PARA 1

Precision Tables for Oilborne Samples.

Confidence Limits for DCOI in Oilborne Solutions

Concentration (% DCOI)	Repeatability (r)	Reproducibility (R)
1.5	0.034	0.089
2.0	0.037	0.105
2.9	0.063	0.090

The above precision statement is based on round robin data from 7 laboratories, 3 test results, and 3 materials covering the concentration range of 1.5 to 2.9% DCOI.

Confidence Limits for DCOI in Oilborne Treated Wood

Concentration (% DCOI)	Repeatability (r)	Reproducibility (R)
0.30	0.011	0.017
0.39	0.017	0.025
0.51	0.019	0.031
0.63	0.016	0.028

The above precision statement is based on round robin data from 7 laboratories, 3 test results, and 4 materials covering the concentration range of 0.30 to 0.63% DCOI.

1455 AWPA A30 18 SECTION 14.3 [Table Data]

~~-~~	~~Sample~~	~~Mean (%DCOI)~~	~~Sr~~	~~SR~~	~~r~~	~~R~~
~~Wood~~	~~EL2-W1~~	~~0.0412~~	~~0.0007~~	~~0.0022~~	~~0.0018~~	~~0.0062~~
	~~EL2-W2~~	~~0.0661~~	~~0.0008~~	~~0.0028~~	~~0.0022~~	~~0.0078~~
	~~EL2-W3~~	~~0.0855~~	~~0.0012~~	~~0.0028~~	~~0.0032~~	~~0.0076~~
~~Solution~~	~~EL2-S1~~	~~0.0480~~	~~0.0003~~	~~0.0040~~	~~0.0010~~	~~0.0112~~
	~~EL2-S2~~	~~0.0694~~	~~0.0005~~	~~0.0014~~	~~0.0014~~	~~0.0037~~
	~~EL2-S3~~	~~0.0895~~	~~0.0007~~	~~0.0019~~	~~0.0019~~	~~0.0047~~

Confidence Limits for DCOI in EL2 Solutions

Concentration (% DCOI)	Repeatability (r)	Reproducibility (R)
0.0480	0.0010	0.0112
0.0694	0.0014	0.0037
0.0895	0.0019	0.0047

The above precision statement is based on round robin data from 6 laboratories, 4 test results and 3 materials covering the concentration range of 0.048 to 0.090% DCOI.

Confidence Limits for DCOI in EL2 Treated Wood

Concentration (% DCOI)	Repeatability (r)	Reproducibility (R)
0.0412	0.0018	0.0062
0.0661	0.0022	0.0078
0.0855	0.0032	0.0076

The above precision statement is based on round robin data from 6 laboratories, 4 test results and 3 materials covering the concentration range of 0.041 to 0.086% DCOI.

1457	AWPA A30 18 SECTION 14.3 [Table Data]2	~~Where: Sr is the repeatability standard deviation~~ ~~- SR is the reproducibility standard deviation~~ ~~- r is the repeatability at the 95% confidence interval~~ ~~- R is the reproducibility at the 95% confidence interval~~	

AWPA Technical Committee P-5
Fall 2023 Standardization Cycle

AWPA Standard A41-18

23F-P5-A41: Proposal to Revise A41 with numerous changes.

MODIFIED BY PROPONENT PRIOR TO MEETING

Proponent(s): Jim Brient

Committee Meeting Action: Unanimously authorized for letter ballot as SUBMITTED.

Letter Ballot Results:

Executive Committee Final Action:

Note: The information presented below shows only the proposed revisions for this standard in legislative format and/or any other actions to be taken by the committee, such as creation of a new standard or reaffirmation or withdrawal of an existing standard. To view the rationale and supporting data (if any) for each proposed revision, as well as to submit comments or questions, you must visit the AWPA Standards Development Platform - https://awpacommenting.edaptivedocs.org (member login required).

ID	▲Item	Proposed Change	Committee Disposition
1415	AWPA A41 18 SECTION 1.0 PARA 1	This method is applicable to the qualitative and quantitative determination of naphthenic acid in wood and solutions containing copper naphthenate. This method also covers the identification of synthetic carboxylic acids and other non-naphthenic carboxylic acid ~~contaminants~~ components i~~n naphthenic acids~~ in copper naphthenate. This procedure will identify the presence of copper naphthenate or naphthenic acid in treated wood and is not intended for determination of trace levels in wood. This gas chromatographic method for analysis of solutions was originally published in Proc. AWPA 95, 133-137 (1999) as an attachment to the 1999 Subcommittee P-5 Report.	
1416	AWPA A41 18 SECTION 2.0 PARA 1	The chromatographic method permits simultaneous determination of naphthenic acid, as well as any synthetic carboxylic acids or other non-naphthenic supplemental carboxylic acids~~adulterants~~. Wood extraction is performed with a Soxhlet apparatus or ultrasonic bath using toluene as the extraction solvent. This method is divided into two basic parts; first, regeneration of the naphthenic acids from the copper naphthenate treating solution or wood extracts, and second, determination of naphthenic and non-naphthenic carboxylic acids in the wood extracts by GC using a flame ionization detector. The chromatograph gives a qualitative determination of naphthenic acid, while concentration of naphthenic acid is calculated using the internal standard method. The GC column may not completely resolve polar constituents such as carboxylic acids from non-polar compounds such as mineral spirits or diesel carriers, but this method can be used for oil-borne copper naphthenate. In the first part, solution samples are diluted with acetone and then acidulated with excess 10% sulfuric acid to regenerate the naphthenic acid. Wood samples are extracted with toluene and then acidulated to regenerate naphthenic acid. In the second part, the regenerated naphthenic acids are injected into a gas chromatograph to resolve oils and non-naphthenic acid contaminants. A qualitative and semi-quantitative analysis of the gas chromatogram is used to determine the presence of naphthenic acid, as well as the presence of synthetic or other non-naphthenic acids in the acidulated extract. For this method, ~~the~~ supplemental non-naphthenic acids are represented by 2-ethylhexanoic, neo-decanoic, and oleic/linoleic acids. The GC method provides the user with a quick and simple method for analyzing neat naphthenic acids without the use of derivatization agents.	
1418	AWPA A41 18 SECTION 5.6	**5.6** Cyclopentylacetic acid (Aldrich #125490 or equivalent), or cyclopentanecarboxylic acid (Aldrich #C112003 or equivalent) (internal standard). Other high purity, single-isomer carboxylic acids that ~~are not potential adulterants and~~ do not co-elute with naphthenic acids may also be used as the internal standard.	
1417	AWPA A41 18 SECTION 5.9	**5.9** Naphthenic acid, refined (available from ~~Merichem Co.~~ reagent chemical suppliers such as Sigma-Aldrich)	
1419	AWPA A41 18 SECTION 6.1	**6.1** For copper naphthenate concentrate or treating solution analyses, follow the procedure described in AWPA Method A13~~-96~~ Section 5~~4~~.0 to regenerate the naphthenic acid from copper naphthenate.	
1420	AWPA A41 18 SECTION 6.2.5	**6.2.5** Calibration standards. Standards for instrument calibration should be prepared using naphthenic acid of known purity (small samples available from reagent chemical suppliers such as Sigma-Aldrich~~free of charge from Merichem Company~~) and the internal standard. Typical standard concentrations are 0.05, 0.10, 0.25, 0.40, and 0.50 wt.% naphthenic acid and 0.10 wt.% internal standard in toluene.	
1421	AWPA A41 18 SECTION 7.3	**7.3 Supplemental carboxylic acid components**~~Non-naphthenic adulterants~~	
1422	AWPA A41 18 SECTION 7.3.1	**7.3.1** If ~~suspected~~ non-naphthenic components~~adulterants~~ are seen in the chromatogram from copper naphthenate solutions, the following test may be done to identify them.	
1423	AWPA A41 18 SECTION 7.3.5	**7.3.5** A visual comparison of the chromatograms of sample versus the acid standards can be made for qualitative analyses. Naphthenic acid appears as a broad hump. Any supplemental component~~adulterant~~ should stand out above all other components. A comparison of retention times of the standards against the sample can be done to verify which supplemental component ~~adulterant~~ is present. Stearic acid can be added as a peak reference to locate oleic acid (Figure 2)	

1424	AWPA A41 18 SECTION 8.1	**8.1** For solution samples, calculate the percent regenerated naphthenic acid in using the formula described in AWPA Method A13~~-96~~, Section 6~~5~~.0. To obtain the calibration curve, perform a linear regression on the ratio of A_{NA}/A_{IS} versus the ratio of C_{IS}/C_{NA}. This will give a formula with the following form:	
1425	AWPA A41 18 SECTION 9.1	**9.1** The non-naphthenic carboxylic acids referenced~~chosen~~ in this method represent only three types of ~~the possible~~ components~~adulterants~~ that may be used in blending with a petroleum source naphthenic acid. Refer to AWPA Standard P36. If other non-naphthenics not conforming to Standard P36 such as C_3-C_9 straight- or branched-chain acids are suspected, the appropriate standard must be made to determine retention times for verification.	
1427	AWPA A41 18 SECTION 9.1	9.2 Standard P36 allows the use of supplemental carboxylic acids (C9 or greater) in copper naphthenate. Most if not all suitable carboxylic acids are naturally-occurring components of naphthenic acid.	
1426	AWPA A41 18 SECTION 10.0	**11~~0~~.0 References:**	
1428	AWPA A41 18 SECTION 10.0	10.0 Precision Statement 10.1 No precision statement based on ASTM E691 has been developed for this standard. 10.2 This standard does not stipulate a specific analyte as the " model" supplemental carboxylic acid. Validity of precision statements will be questionable if the supplemental acids used in commercial products differ from the analyte used to generate a precision statement. Attachment(s): *P&B statement for A41 discussion June2023.pdf*	

AWPA Technical Committee P-5
Fall 2023 Standardization Cycle

AWPA Standard A50-18

23F-P5-A50: Proposal to Reaffirm A50 without revision.

Proponent(s): Nelson Wanggui

Committee Meeting Action: Unanimously authorized for letter ballot as SUBMITTED.

Letter Ballot Results:

Executive Committee Final Action:

Note: The information presented below shows only the proposed revisions for this standard in legislative format and/or any other actions to be taken by the committee, such as creation of a new standard or reaffirmation or withdrawal of an existing standard. To view the rationale and supporting data (if any) for each proposed revision, as well as to submit comments or questions, you must visit the AWPA Standards Development Platform - https://awpacommenting.edaptivedocs.org (member login required).

▼ID	Item	Proposed Change	Committee Status
1474	AWPA A50 18	**Additional Comment:** Reaffirm without Revisions	

AWPA Technical Committee P-5
Fall 2023 Standardization Cycle

AWPA Standard A67-18

23F-P5-A67: Proposal to Reaffirm A67 without revision.

Proponent(s): Nelson Wanggui

Committee Meeting Action: Unanimously authorized for letter ballot as SUBMITTED.

Letter Ballot Results:

Executive Committee Final Action:

Note: The information presented below shows only the proposed revisions for this standard in legislative format and/or any other actions to be taken by the committee, such as creation of a new standard or reaffirmation or withdrawal of an existing standard. To view the rationale and supporting data (if any) for each proposed revision, as well as to submit comments or questions, you must visit the AWPA Standards Development Platform - https://awpacommenting.edaptivedocs.org (member login required).

▼ID	Item	Proposed Change	Committee Status
1430	AWPA A67 18	**Additional Comment:** Reaffirm without Revisions	

AWPA Technical Committee P-5
Fall 2023 Standardization Cycle

AWPA Standard A70-18

23F-P5-A70: Proposal to Reaffirm A70 without revision.

Proponent(s): Kim Merritt

Committee Meeting Action: Unanimously authorized for letter ballot as SUBMITTED.

Letter Ballot Results:

Executive Committee Final Action:

Note: The information presented below shows only the proposed revisions for this standard in legislative format and/or any other actions to be taken by the committee, such as creation of a new standard or reaffirmation or withdrawal of an existing standard. To view the rationale and supporting data (if any) for each proposed revision, as well as to submit comments or questions, you must visit the AWPA Standards Development Platform - https://awpacommenting.edaptivedocs.org (member login required).

▼ID	Item	Proposed Change	Committee Status
1449	AWPA A70 18	**Additional Comment:** Reaffirm without Revisions	

AWPA Technical Committee P-5
Fall 2023 Standardization Cycle

AWPA Standard A71-22

23F-P5-A71: Proposal to Revise A71 by adding second dye option.

Proponent(s): Andy Zahora

Committee Meeting Action: Unanimously authorized for letter ballot as SUBMITTED.

Letter Ballot Results:

Executive Committee Final Action:

Note: The information presented below shows only the proposed revisions for this standard in legislative format and/or any other actions to be taken by the committee, such as creation of a new standard or reaffirmation or withdrawal of an existing standard. To view the rationale and supporting data (if any) for each proposed revision, as well as to submit comments or questions, you must visit the AWPA Standards Development Platform - https://awpacommenting.edaptivedocs.org (member login required).

ID	▲Item	Proposed Change	Committee Status
1460	AWPA A71 22 SECTION 2.1	**2.1** The dry powdered oil soluble~~red~~ dyestuffs dissolve~~s~~ in petroleum solvent, producing a pink to bright red, or a distinct green color depending on which dye system is used~~color~~. Attachment(s): *AWPA A71 modification Justification.docx*	
1461	AWPA A71 22 SECTION 5.1	**5.1** Red dye system: 20 parts by weight 'Speedex' filter aid powder, or calcium carbonate~~.~~ and 1 part by weight Oil Red O (Color Index No. 26125, also known as Calco Oil Red, Solvent Red 27, and OIl Red 235).	
1462	AWPA A71 22 SECTION 5.2	**5.2** ~~1 part by weight Oil Red O (Color Index No. 26125, also known as Calco Oil Red, Solvent Red 27, and Oil Red 235)~~Green dye system: 40 parts by weight 'Speedex' filter aid powder and 1 part by weight of a mixture of Solvent Blue 36 and Solvent Yellow 14. The combination of Solvent Blue 36 and Solvent Yellow 14 is available as a proprietary commercial blend sold under the tradename "Sorasolve Green SBI" is available from First Source Worldwide1524 S. Commercial Street, Neenah, WI 54956.	
1464	AWPA A71 22 SECTION 6.3	**6.3** The portions of wood containing petroleum solvent in which the oil-soluble organic biocide is carried will turn pink to bright red, or green within 5 minutes depending on the dye system used. With the green dye system, the dye powder mix is initially blue, and only turns green when dissolved in oil. Untreated portions of wood sample retain their normal color.	

AWPA Technical Committee P-5
Fall 2023 Standardization Cycle

AWPA Standard A72-18

23F-P5-A72: Proposal to Reaffirm A72 without revision.

Proponent(s): Min Chen

Committee Meeting Action: Unanimously authorized for letter ballot as SUBMITTED.

Letter Ballot Results:

Executive Committee Final Action:

Note: The information presented below shows only the proposed revisions for this standard in legislative format and/or any other actions to be taken by the committee, such as creation of a new standard or reaffirmation or withdrawal of an existing standard. To view the rationale and supporting data (if any) for each proposed revision, as well as to submit comments or questions, you must visit the AWPA Standards Development Platform - https://awpacommenting.edaptivedocs.org (member login required).

▼ID	Item	Proposed Change	Committee Status
1435	AWPA A72 18	**Additional Comment:** Reaffirm without Revisions	

AWPA Technical Committee P-5
Fall 2023 Standardization Cycle

AWPA Standard A73-18

23F-P5-A73: Proposal to Reaffirm A73 without revision.

Proponent(s): Jake Munson

Committee Meeting Action: Unanimously authorized for letter ballot as SUBMITTED.

Letter Ballot Results:

Executive Committee Final Action:

Note: The information presented below shows only the proposed revisions for this standard in legislative format and/or any other actions to be taken by the committee, such as creation of a new standard or reaffirmation or withdrawal of an existing standard. To view the rationale and supporting data (if any) for each proposed revision, as well as to submit comments or questions, you must visit the AWPA Standards Development Platform - https://awpacommenting.edaptivedocs.org (member login required).

▼ID	Item	Proposed Change	Committee Status
1448	AWPA A73 18	**Additional Comment:** Reaffirm without Revisions	

AWPA Technical Committee P-5
Fall 2023 Standardization Cycle

AWPA Standard A74-18

23F-P5-A74: Proposal to Reaffirm A74 without revision.

Proponent(s): Nelson Wanggui

Committee Meeting Action: Unanimously authorized for letter ballot as SUBMITTED.

Letter Ballot Results:

Executive Committee Final Action:

Note: The information presented below shows only the proposed revisions for this standard in legislative format and/or any other actions to be taken by the committee, such as creation of a new standard or reaffirmation or withdrawal of an existing standard. To view the rationale and supporting data (if any) for each proposed revision, as well as to submit comments or questions, you must visit the AWPA Standards Development Platform - https://awpacommenting.edaptivedocs.org (member login required).

▼ID	Item	Proposed Change	Committee Status
1473	AWPA A74 18	**Additional Comment:** Reaffirm without Revisions	

American Wood Protection Association
Protecting Wood Since 1904

23F-P5-A75

AWPA Technical Committee P-5
Fall 2023 Standardization Cycle

AWPA Standard A75-18

23F-P5-A75: Proposal to Reaffirm A75 with no changes

Proponent(s): Kyle Cassidy

Committee Meeting Action: Unanimously authorized for letter ballot as SUBMITTED.

Letter Ballot Results:

Executive Committee Final Action:

Note: The information presented below shows only the proposed revisions for this standard in legislative format and/or any other actions to be taken by the committee, such as creation of a new standard or reaffirmation or withdrawal of an existing standard. To view the rationale and supporting data (if any) for each proposed revision, as well as to submit comments or questions, you must visit the AWPA Standards Development Platform - https://awpacommenting.edaptivedocs.org (member login required).

▼ID	Item	Proposed Change	Committee Status
1368	AWPA A75 18	**Additional Comment:** Reaffirm without Revisions	

AWPA Technical Committee P-5
Fall 2023 Standardization Cycle

AWPA Standard A77-18

23F-P5-A77: Proposal to Reaffirm A77 without revision.

Proponent(s): Kyle Cassidy

Committee Meeting Action: Unanimously authorized for letter ballot as SUBMITTED.

Letter Ballot Results:

Executive Committee Final Action:

Note: The information presented below shows only the proposed revisions for this standard in legislative format and/or any other actions to be taken by the committee, such as creation of a new standard or reaffirmation or withdrawal of an existing standard. To view the rationale and supporting data (if any) for each proposed revision, as well as to submit comments or questions, you must visit the AWPA Standards Development Platform - https://awpacommenting.edaptivedocs.org (member login required).

▼ID	Item	Proposed Change	Committee Status
1369	AWPA A77 18	**Additional Comment:** Reaffirm without Revisions	

AWPA Technical Committee P-5
Fall 2023 Standardization Cycle

AWPA Standard A79-18

23F-P5-A79: Proposal to Reaffirm A79 without revision.

Proponent(s): Kim Merritt

Committee Meeting Action: Unanimously authorized for letter ballot as SUBMITTED.

Letter Ballot Results:

Executive Committee Final Action:

Note: The information presented below shows only the proposed revisions for this standard in legislative format and/or any other actions to be taken by the committee, such as creation of a new standard or reaffirmation or withdrawal of an existing standard. To view the rationale and supporting data (if any) for each proposed revision, as well as to submit comments or questions, you must visit the AWPA Standards Development Platform - https://awpacommenting.edaptivedocs.org (member login required).

▼ID	Item	Proposed Change	Committee Status
1450	AWPA A79 18	**Additional Comment:** Reaffirm without Revisions	

AWPA Technical Committee P-5
Fall 2023 Standardization Cycle

AWPA Standard A80-18

23F-P5-A80: Proposal to Reaffirm A80 without revision.

Proponent(s): Kim Merritt

Committee Meeting Action: Unanimously authorized for letter ballot as SUBMITTED.

Letter Ballot Results:

Executive Committee Final Action:

Note: The information presented below shows only the proposed revisions for this standard in legislative format and/or any other actions to be taken by the committee, such as creation of a new standard or reaffirmation or withdrawal of an existing standard. To view the rationale and supporting data (if any) for each proposed revision, as well as to submit comments or questions, you must visit the AWPA Standards Development Platform - https://awpacommenting.edaptivedocs.org (member login required).

▼ID	Item	Proposed Change	Committee Status
1451	AWPA A80 18	**Additional Comment:** Reaffirm without Revisions	

AWPA Technical Committee P-5
Fall 2023 Standardization Cycle

AWPA Standard A81-18

23F-P5-A81: Proposal to Reaffirm A81 without revision.

Proponent(s): Kim Merritt

Committee Meeting Action: Unanimously authorized for letter ballot as SUBMITTED.

Letter Ballot Results:

Executive Committee Final Action:

Note: The information presented below shows only the proposed revisions for this standard in legislative format and/or any other actions to be taken by the committee, such as creation of a new standard or reaffirmation or withdrawal of an existing standard. To view the rationale and supporting data (if any) for each proposed revision, as well as to submit comments or questions, you must visit the AWPA Standards Development Platform - https://awpacommenting.edaptivedocs.org (member login required).

▼ID	Item	Proposed Change	Committee Status
1452	AWPA A81 18	**Additional Comment:** Reaffirm without Revisions	

AWPA Technical Committee P-5
Fall 2023 Standardization Cycle

AWPA Standard A82-18

23F-P5-A82: Proposal to Reaffirm A82 without revision.

Proponent(s): Kim Merritt

Committee Meeting Action: Unanimously authorized for letter ballot as SUBMITTED.

Letter Ballot Results:

Executive Committee Final Action:

Note: The information presented below shows only the proposed revisions for this standard in legislative format and/or any other actions to be taken by the committee, such as creation of a new standard or reaffirmation or withdrawal of an existing standard. To view the rationale and supporting data (if any) for each proposed revision, as well as to submit comments or questions, you must visit the AWPA Standards Development Platform - https://awpacommenting.edaptivedocs.org (member login required).

▼ID	Item	Proposed Change	Committee Status
1453	AWPA A82 18	**Additional Comment:** Reaffirm without Revisions	

AWPA Technical Committee P-5
Fall 2023 Standardization Cycle

AWPA Standard A83-18

23F-P5-A83: Proposal to Reaffirm A83 without revision.

Proponent(s): Kim Merritt

Committee Meeting Action: Unanimously authorized for letter ballot as SUBMITTED.

Letter Ballot Results:

Executive Committee Final Action:

Note: The information presented below shows only the proposed revisions for this standard in legislative format and/or any other actions to be taken by the committee, such as creation of a new standard or reaffirmation or withdrawal of an existing standard. To view the rationale and supporting data (if any) for each proposed revision, as well as to submit comments or questions, you must visit the AWPA Standards Development Platform - https://awpacommenting.edaptivedocs.org (member login required).

▼ID	Item	Proposed Change	Committee Status
1454	AWPA A83 18	**Additional Comment:** Reaffirm without Revisions	

AWPA Technical Committee P-5
Fall 2023 Standardization Cycle

AWPA Standard A87-18

23F-P5-A87: Proposal to Reaffirm A87 without revision.

Proponent(s): Kyle Cassidy

Committee Meeting Action: Unanimously authorized for letter ballot as SUBMITTED.

Letter Ballot Results:

Executive Committee Final Action:

Note: The information presented below shows only the proposed revisions for this standard in legislative format and/or any other actions to be taken by the committee, such as creation of a new standard or reaffirmation or withdrawal of an existing standard. To view the rationale and supporting data (if any) for each proposed revision, as well as to submit comments or questions, you must visit the AWPA Standards Development Platform - https://awpacommenting.edaptivedocs.org (member login required).

▼ID	Item	Proposed Change	Committee Status
1370	AWPA A87 18	**Additional Comment:** Reaffirm without Revisions	

AWPA Technical Committee P-5
Fall 2023 Standardization Cycle

AWPA Standard A88-18

23F-P5-A88: Proposal to Revise A88 with minor changes.

Proponent(s): Nelson Wanggui

Committee Meeting Action: Unanimously authorized for letter ballot as SUBMITTED.

Letter Ballot Results:

Executive Committee Final Action:

Note: The information presented below shows only the proposed revisions for this standard in legislative format and/or any other actions to be taken by the committee, such as creation of a new standard or reaffirmation or withdrawal of an existing standard. To view the rationale and supporting data (if any) for each proposed revision, as well as to submit comments or questions, you must visit the AWPA Standards Development Platform - https://awpacommenting.edaptivedocs.org (member login required).

ID	▲Item	Proposed Change	Committee Status
1412	AWPA A88 18 SECTION 5.5	**5.5** Buffer solution.~~,~~ aqueous~~Aqueous~~ solution containing 67.5 g per liter of ammonium chloride and 570 ml per liter conc. ammonium hydroxide solution.	
1413	AWPA A88 18 SECTION 6.1.8	**6.1.8** Add 0.5 ml of PAN indicator solution. Observe color.	
1414	AWPA A88 18 SECTION 6.1.10	**6.1.10** Titrate dropwise with EDTA solution back to original color observed in Section 6.1.8~~7~~).	

AWPA Technical Committee P-5
Fall 2023 Standardization Cycle

AWPA Standard A90-18

23F-P5-A90: Proposal to Reaffirm A90 without revision.

Proponent(s): Min Chen

Committee Meeting Action: Unanimously authorized for letter ballot as SUBMITTED.

Letter Ballot Results:

Executive Committee Final Action:

Note: The information presented below shows only the proposed revisions for this standard in legislative format and/or any other actions to be taken by the committee, such as creation of a new standard or reaffirmation or withdrawal of an existing standard. To view the rationale and supporting data (if any) for each proposed revision, as well as to submit comments or questions, you must visit the AWPA Standards Development Platform - https://awpacommenting.edaptivedocs.org (member login required).

▼ID	Item	Proposed Change	Committee Status
1434	AWPA A90 18	**Additional Comment:** Reaffirm without Revisions	

AWPA Technical Committee P-5
Fall 2023 Standardization Cycle

AWPA Standard A91-18

23F-P5-A91: Proposal to revise A91 with precision statement.

Proponent(s): Min Chen

Committee Meeting Action: Unanimously authorized for letter ballot as SUBMITTED.

Letter Ballot Results:

Executive Committee Final Action:

Note: The information presented below shows only the proposed revisions for this standard in legislative format and/or any other actions to be taken by the committee, such as creation of a new standard or reaffirmation or withdrawal of an existing standard. To view the rationale and supporting data (if any) for each proposed revision, as well as to submit comments or questions, you must visit the AWPA Standards Development Platform - https://awpacommenting.edaptivedocs.org (member login required).

ID	▲Item	Proposed Change	Committee Status
1431	AWPA A91 18 SECTION 6.0	**6.0 ~~Accuracy and Precision:~~ Precision Statement:** 6.1 The following statements and table(s) should be used to judge the acceptability of an analysis using the method and the conditions described below. **Repeatability:** Duplicate test results on the same test unit by the same operator using the same equipment should not be suspect at the 95% confidence level if they do not differ from one another by equal to or less than the confidence limits shown in the following table(s). **Reproducibility:** Duplicate test results on the same test unit by different operators in different laboratories should not be suspect at the 95% confidence level if they do not differ from one another by equal to or less than the confidence limits shown in the following table(s).	
1432	AWPA A91 18 SECTION 6.1	~~6.1~~6.2 In a typical NAA System[1], repeated measurements indicate that samples containing more than 2 micrograms of iodine the precision of the determination is 5% of the value reported. For samples with less than 2 micrograms iodine, the precision is 0.1 micrograms.	
1433	AWPA A91 18 SECTION 6.1 PARA 2	The above precision statements are based on round robin data by 3 laboratories, each running two replicate determinations on each of 5 samples covering the concentration range of 0.022% to 0.162% IPBC in wood. ~~This precision statement is provisional. Within 5 years, additional data will be obtained and processed which does meet the requirements of E691.~~ Precision statements were calculated in accordance with ASTM E691.	

AWPA Technical Committee P-5
Fall 2023 Standardization Cycle

AWPA Standard A94-18

23F-P5-A94: Proposal to revise A94 with precision statement.

Proponent(s): Min Chen

Committee Meeting Action: Unanimously authorized for letter ballot as SUBMITTED.

Letter Ballot Results:

Executive Committee Final Action:

Note: The information presented below shows only the proposed revisions for this standard in legislative format and/or any other actions to be taken by the committee, such as creation of a new standard or reaffirmation or withdrawal of an existing standard. To view the rationale and supporting data (if any) for each proposed revision, as well as to submit comments or questions, you must visit the AWPA Standards Development Platform - https://awpacommenting.edaptivedocs.org (member login required).

▼ID	Item	Proposed Change	Committee Status
1429	AWPA A94 18 SECTION 10.4 TABLE 1 [Table Data]	**11.0 Precision Statement:** 11.1 The following statements and table(s) should be used to judge the acceptability of an analysis using the method and the conditions described below. **Repeatability.** Duplicate single determination on the same sample by the same operator using the same equipment should not be suspect at the 95% confidence level unless the values differ by more than 0.2 percent absolute. **Reproducibility:** Duplicate test results on the same test unit by different operators in different laboratories should not be suspect at the 95% confidence level unless the values differ by more than 0.4 percent absolute. 11.2 No precision statement based on ASTM E691 has yet been developed for this standard.	

AWPA Technical Committee P-5
Fall 2023 Standardization Cycle

AWPA Standard Axx

23F-P5-Axx: Proposal to create new A Standard for copper indicators.

Proponent(s): Jeff Morrell

Committee Meeting Action: Unanimously authorized for letter ballot as SUBMITTED.

Letter Ballot Results:

Executive Committee Final Action:

Note: The information presented below shows only the proposed revisions for this standard in legislative format and/or any other actions to be taken by the committee, such as creation of a new standard or reaffirmation or withdrawal of an existing standard. To view the rationale and supporting data (if any) for each proposed revision, as well as to submit comments or questions, you must visit the AWPA Standards Development Platform - https://awpacommenting.edaptivedocs.org (member login required).

▼ID	Item	Proposed Change	Committee Status
1443	AWPA AXX 01 SECTION METHODS FOR DETECTING COPPER CONTAINING PRESERVATIVES IN TREATED WOOD	**METHODS FOR DETECTING COPPER CONTAINING PRESERVATIVES IN TREATED WOOD** **1.0 Scope:** 1.1 This standard is employed to determine penetration depth of preservatives containing copper into treated wood to decide whether the treated product meets acceptance levels as prescribed in the treatment standards. It lists three different indicators that can be used and outlines their sensitivities as well as the indicator that is most appropriate for some preservative systems. **2.0 Summary:** 2.1 The methods described employ stains that change color in the presence of the desired metal. 2.2 This standard combines AWPA Standards A69, A72, and A76 with specific recommendations for some preservative/indicator combinations. **3.0 Safety Procedures:** 3.1 The collection, storage, handling and disposal of all materials should be done in accordance with standard laboratory safety procedures. Not all general safety concerns associated with this standard are addressed here. It is therefore the responsibility of the user to establish and follow appropriate good laboratory practices and general safety precautions where applicable. **4.0 Apparatus:** 4.1 Analytical balance accurate to 0.01 g. 4.2 Refrigerator for temporary storage of solutions. **5.0 Reagents:** 5.1 Methanol (reagent grade).	

5.2 1-(2-pyridylazo)-2-naphthol (PAN).

5.3 Ethanol (95 %).

5.4 Dithio oxamide (Rubeanic acid).

5.5 Sodium acetate.

5.6 Chrome azurol S.

6.0 Solution Preparation Procedures:

6.1 Chrome azurol S indicator.

6.1.1 Dissolve 0.5 g of Chrome azurol S and 5.0 g of sodium acetate into 80 ml distilled or deionized water, mix well and then dilute with water to 300 ml total.

6.2 Rubeanic acid indicator.

6.2.1 Solution A: Dissolve 0.5 g Rubeanic acid in 100 ml ethanol.

6.2.2 Solution B: Dissolve 5 g sodium acetate in 100 ml distilled/deionized water.

6.3 PAN indicator.

6.3.1 Dissolve 0.05 g of PAN in 100 g methanol. Make fresh daily or refrigerate for short periods (<30 days).

7.0 Indicator application:

7.1 Chrome azurol S.

7.1.1 Spray or brush solution over split borings or freshly cut surfaces of treated wood. Deep blue color indicates presence of copper.

7.2 Rubeanic acid.

7.2.1 Spray or brush Solution A (rubeanic acid) over split borings or freshly cut surfaces then spray or brush Solution B (sodium acetate) on the same surface. Dark green indicates the presence of copper while the untreated wood will remain pale yellow.

7.3 PAN.

7.3.1 Spray or brush the PAN solution over split borings or freshly cut surfaces. A deep red/magenta color indicates the presence of copper (II) while untreated wood remains orange.

8.0 Expected results and limitations:

Indictator	Element Detected	Color Change	Sensitivity	Previous Standards	Preferred Use
Chrome azurol S	Copper (II)	Blue	25 ppm	AWPA A69; AWPA A3 Method 2	Recommended for freshly treated wood.
Rubeanic acid	Copper (II)	Deep green	25 ppm	AWPA A72; AWPA A3 Method 8	All copper treated wood. Can be used for freshly treated wood, but is also best for wood in service, especially in soil contact.
PAN	Copper (II)	Red/magenta	5 ppm	AWPA A76; AWPA A3 Method 14	Care must be taken to avoid carry-over. Useful for oxine copper because of the low Cu levels in the preservative.

		9.0 Calculations: **9.1** Not applicable. **10.0 Report:** **10.1** Report on the depth of preservative penetration and the treatment/sample batch number. **11.0 Precision statement:** **11.1** This standard does not require a precision statement as it is only a qualitative method.	

AWPA Technical Committee P-6
Fall 2023 Standardization Cycle

AWPA Standard E18-18

23F-P6-E18: Proposal to revise E18 with extensive changes.

Proponent(s): Andy Zahora

Committee Meeting Action: Unanimously authorized for letter ballot as SUBMITTED.

Letter Ballot Results:

Executive Committee Final Action:

Note: The information presented below shows only the proposed revisions for this standard in legislative format and/or any other actions to be taken by the committee, such as creation of a new standard or reaffirmation or withdrawal of an existing standard. To view the rationale and supporting data (if any) for each proposed revision, as well as to submit comments or questions, you must visit the AWPA Standards Development Platform - https://awpacommenting.edaptivedocs.org (member login required).

ID	▲Item	Proposed Change	Committee Status
1371	AWPA E18 18 SECTION 1.1	**1.1** This standard specifies a field test method for evaluating the relative performance of wood treated with preservatives in a severe Use Category 3B exposure. It is designed to test wood preservative systems intended for use in exterior (fully exposed to the weather) above ground (no direct ground or soil contact) exposures where the wood does not have any additional protection provided by a surface coating. The test method evaluates the performance of ~~wood~~ treated wood in a high moisture field exposure where it is subjected to the wide range of naturally occurring decay fungi and other micro-organisms present in the testing environment. This test method is intended to be a screening test. It may also be used to provide information for standardization of protection treatments. With appropriate adjustments, this method may also be used to generate data on the relative performance of other methods of wood protection such as wood modification, as well as the natural durability of wood. Testing and evaluation of wood and preservative systems intended for above ground exterior applications where a surface coating is used should use AWPA Standard E9. ~~This test method is intended to be a screening test. It may also be used to provide information for standardization of protection treatments.~~	
1397	AWPA E18 18 SECTION 2.0 PARA 1	Small wood samples are treated with the preservative system(s) of interest at a range of concentrations expected to include a minimum level for adequate performance. Untreated samples and reference preservative systems (and/or durable species) with a known history of commercial performance are included for reference. These samples are then exposed under field conditions in a high decay hazard above ground test. Samples are exposed in close proximity to the ground, but out of direct soil contact, by placing them horizontally ~~on 100 mm high (nominal height)~~ concrete masonry cinder blocks ~~(~~or optionally, acrylic plastic grids (also called geo-grids). The cinder blocks keep the samples out of direct soil contact, but allow wicking of moisture from the soil to the test samples. The ~~cinder block~~ test arrays are fully exposed in an outside environment, ~~but~~ protected from direct sunlight by a shade-cloth cover. The shade cloth allows rain into the arrays, but slows sample drying between rain events. The test arrays are designed to provide a uniform high-moisture content environment for above ground exposure similar to high hazard areas of a deck or similar construction. At periodic intervals, samples are examined for extent of fungal attack and rated for level of sample deterioration. The relative effectiveness of the test preservative systems in protecting against decay is compared with that of control materials and reference preservative systems.	
1373	AWPA E18 18 SECTION 3.6	**3.6** Test boxes for specimen exposure consisting of a raised base for placing the test specimens on, ~~and~~ a box cover with a mesh top, and (optionally) a ground cloth. Test boxes are further described in Sections 4.3 and 7.3.	
1374	AWPA E18 18 SECTION 4.3	**4.3 Materials to produce field exposure arrays:** A typical array ~~to~~ as described below can hold between 72 and 84 test samples, ~~as~~ is illustrated in Figure 1, will require:	
1375	AWPA E18 18 SECTION 4.3 PARA 1	a. Eight ~~4 x 8 x 16 inch~~ 100 x 200 x 400mm (nominally 4x 8 x16 inch) concrete masonry cinder blocks, or equivalent ~~.~~to raise samples 100 (±20) mm off the ground. Alternatively, an acrylic lattice (also called geo-grid) at least 45 mm thick with ~25 mm square openings can be used to support the test specimens.	
1376	AWPA E18 18 SECTION 4.3 PARA 2	b. Four 1.0-meter-long by 138 mm high (minimum) solid panels for the cover frame (nominal 1 x 6 or 5/4 x 6 pressure treated lumber, ground contact retention). Box sides may also be constructed using durable non-wood materials, such as UV resistant PVC.	
1377	AWPA E18 18 SECTION 4.3 PARA 3	c. One or two top cross-pieces to support shade cloth (about 38 x 20 mm by 1.0-meter-long pressure treated wood, ground contact retention).	
1378	AWPA E18 18 SECTION 4.3 PARA 7	~~Alternatively, a 25 mm thick, acrylic lattice grid with ~ 25 mm square openings can be used to support the test specimens. This alternate is best suited for use in test sites with high rainfall since the lattice will not wick water up from the soil to the specimens.~~	
1379	AWPA E18 18 SECTION 5.1	**5.1 Machining.** Lumber stock prior to machining should be dried to uniform moisture content less than 19%. Test samples for treatment may be prepared to either their final size (19 x 50 mm by 125 mm long), or may be of longer dimension to provide multiple test samples (for different test sites, and/or depletion testing) as well as ~~an~~ analytical retain samples (See	

		Fig. 2). All samples within a test should be carefully machined as accurately as possible to the same dimensions so that their initial weights are representative of their densities. Samples should be stored in a conditioning chamber or room until required for treating. Alternate specimen sizes ~~(e.g., 48 x 19 x 89 mm)~~ are permitted~~. The intent is~~ to allow for differences in material thickness. Preferred lengths are 125 or 89 mm. Preferred widths are 48 or 50 mm. The specimen size(s) used must be indicated in the report.	
1380	AWPA E18 18 SECTION 5.2	**5.2 Replication.** Prepare at least 10 specimens for each combination of test parameters: site, wood species, preservative (including reference preservative), and retention level, as well as for untreated controls and any durable species. It may be desirable to prepare extra samples for selected treatment retentions that can be sacrificed for depletion studies during the exposure (see Section 9). Samples should be distributed between treatment groups to provide equivalent distributions of wood density (estimated from initial weights).	
1381	AWPA E18 18 SECTION 6.0 PARA 1	The test preservative(s) and any reference preservative systems must be analyzed to certify the active component concentrations, with the treatment solution strengths reported. Preservatives shall be stored and handled in accordance with any written requirements such as provided in a material safety data sheet.	
1382	AWPA E18 18 SECTION 6.1	**6.1 Treating process.** Test samples shall be treated by a method appropriate to the intended end-use of ~~the~~ each preservative system. This is usually a full-cell vacuum pressure treatment, but could involve brush or dip treatments if appropriate to the intended end-use of the system. Pressure treatments should be of sufficient length to ensure full penetration of test pieces, but should not be excessive, especially with systems that might be reactive with the wood and load the surface with chemical. All details of the treating method used should be reported. Systems should be treated to a range of concentrations expected to include the minimum level required for control. The number and range of retentions targeted will be dependent on how well the effectiveness of the product has already been defined. The range of target retentions should be achieved by varying the concentration of active ingredient(s) in the formulation, with all treatment parameters held constant between treatments. All samples should be weighed to the nearest 0.1 g immediately before and after treatment. The volume of samples should be known, as well as the initial sample moisture contents to allow estimation of individual sample densities and preservative uptakes. Pressure treated samples should be allowed to drip a few minutes and then blotted to remove any excess or surface treatment solution from the samples before weighing. Preservative retention should be expressed in kilograms per cubic meter of wood for pressure and/or vacuum treatments, and in grams per square meter of wood surface for dipping or other surface treatment techniques.	
1383	AWPA E18 18 SECTION 6.2	**6.2 Post-treatment handling of the test samples.** Post treatment handling of samples should be consistent with any recommendations ~~(if they exist)~~ of the sponsor~~, or try to~~ and should be consistent with the expected or intended commercial practices. For systems that require a wet fixation period after treatment, e.g., CCA, samples from each treatment and retention group should be wrapped separately in ~~polythene~~ polyethylene or similar material for at least 7 days at ambient room temperature prior to drying. If no recommendations are given, dry the treated samples in stickered horizontal stacks with space between samples in an area protected from rain and frost, preferably using a fan to provide good air circulation through the stack. Samples should be dried to below 18% moisture content, or within 6% of their initial pre-treatment weight for pressure treated samples (excluding non-volatile components of the treatment).	
1384	AWPA E18 18 SECTION 6.3	**6.3 Final preparation and removal of analytical retain samples.** Once treated samples are air-dry, permanent labels are fixed to the middle of the top horizontal face. Any samples to be retained are~~ then~~ either cut from the parent treated boards and kept for chemical analysis purposes to confirm preservative retention values (Figure 2)~~.~~, or selected to be representative of the samples that will be exposed in the field. All exposure samples should be at their final ~~125 mm~~ lengths~~.~~ (typically 125 mm).	
1398	AWPA E18 18 SECTION 7.1	**7.1 Number of test sites.** Although the test is valid using one site it is advantageous to select more than one test site representing markedly different geographic locations. Double length samples as in Figure 2 will allow a single retain sample to represent retentions at two different sites.	
1385	AWPA E18 18 SECTION 7.3	**7.3 Installation of the samples at the test site:** Place the samples randomly on the exposure arrays with the tag upwards so that the bottom of the samples has uniform contact with the base. The samples should be separated slightly from each other and should allow space for~~ movement during exposure as a result of~~ potential dimensional changes associated with variations in moisture content. At sites with ~~rapid vegetation growth and/~~ significant ant or ~~high populations of ants~~ other insect activity that can transport soil and other materials ~~on the top of~~ into contact with the specimens, a ground cloth may be placed under the cinder blocks or plastic ~~grid. Alternatively, a 25 mm thick,~~ acrylic lattice grids. This may also be useful to control vegetation growth within and around the boxes. The ~~-~~acrylic lattice grid (also called geo-grid) ~~with 25 mm square openings,~~ can be placed directly in soil contact or preferably on a ground cloth, ~~can be used to support~~ with the test specimens~~. This alternate is best suited for use in test sites with high rainfall since the lattice will not wick water up from the soil to the specimens. Box sides may also be constructed using durable non-wood materials, such as UV resistant PVC.~~ placed on top.	
1386	AWPA E18 18 SECTION 8.0 PARA 1	Samples shall be assessed at periodic intervals (typically yearly) according to the rating scheme shown in Table 1. Depending on the age of the samples and exposure location, they may develop extensive algal, lichen, and even moss growth on their top surface. For consistency, samples within a test should be uniformly scraped or cleaned of excessive growth as necessary during evaluations. Scraping may also be necessary to accurately evaluate the top surfaces. When possible, samples should be scraped and evaluated when wet, as they are easier to clean and it is easier to detect wood softening associated with decay. It may be beneficial to wet samples artificially prior to scraping and evaluation. Evaluation should be nondestructive and should look for areas of wood softening associated with decay. The use of a blunt metal scraper or probe that will not gouge or damage sound samples, but can detect weakened areas (scrape or gouge into decayed wood only) should be used. All faces/surfaces of the test samples should be inspected, with the decay rating assigned based on the worst cross-section of the specimen, excluding either end. For example, the cross-sectional rating of a 125 mm long specimen would be based on the inner 119 mm length. Decay in the 2-3 mm of wood volume associated with the cut end-grain surfaces ~~should be taken into account, however,~~ must be considered, but not as a full cross-section in ~~assigning the block rating.~~ this end-surface zone. For example, if the interior length of the specimen is showing no decay, but one of the cut end-grain surfaces is showing ~~extensive~~ decay ~~penetrating~~ that is less than 2 mm deep, a rating lower than 10 ~~may~~ should be assigned. Box bases should be cleaned and, if necessary, re-set at each inspection. ~~Each~~ After inspection, each sample should then be returned to the exposure array from which it was removed. All samples within a test should be evaluated under the same conditions of sample wetness at each evaluation. Additional information may be reported for each sample such as insect attack, color or stain development, mold-algae-lichen-moss growth, and surface physical characteristics. In some tests, specimen damage from insects (beetle larvae, wasps, carpenter bees, etc.) may be observed. ~~An~~ A separate insect damage rating shall then be assigned to each ~~the~~ specimen ~~cross-section with the most insect damage~~ using the ~~entire termite~~ rating scheme shown in AWPA Standard E7.	
1399	AWPA E18 18 SECTION 8.0 PARA 1	**8.1 Length of study.** Minimum test duration shall be 5 years or until twice the time required for untreated control samples to have reached an average rating of less than 4. To provide information useful in establishing minimum retentions, comparisons must be made to reference system(s) with a known history of adequate above ground commercial performance (e.g., CCA). Preferably, the test should continue until the reference preservative tested at established sub-threshold retention exhibits moderate to severe decay. Test duration may be highly dependent on location and climate.	

1388	AWPA E18 18 SECTION 9.0 PARA 1	~~It is recommended that a depletion study be performed on each preservative system tested in order to determine the permanence of the active ingredients. Because of wood variability, specimens within a preservative/retention group should come from different boards. Different specimen sizes can be used. One option is to use 20 x 50 mm by 125 mm long specimens for depletion study.~~ Depletion studies may be recommended for preservative systems in order to determine the permanence of their active ingredients. Because of wood variability, replicate specimens for different exposure lengths within a preservative/retention group should come from different boards. Samples the same size as the decay samples will provide useful comparative data, although different specimen sizes could be used.	
1390	AWPA E18 18 SECTION 9.1	**9.1 Initial retentions.** It is important to have an accurate measure of the initial active ingredient retentions. This is best done by treating ~~a~~ longer "mother" specimens which can be cut into multiple end-matched samples for different exposure lengths as well as ~~exposure/depletion specimens plus an~~ analytical sample(s). (e.g., see Figure 2 but extended to produce 3 or more end-matched samples with one or more retains.~~for 19 x 50 x 125 exposure specimens~~).	
1389	AWPA E18 18 SECTION 9.2	**9.2 Exposed samples.** At least three specimens of each preservative/retention combination of interest should be removed from test site exposure at least three times within five years after installation. The nature of analytical samples cut from the exposed depletion specimen will depend on the objectives of the study. If 19 x 50 x 125mm specimens are used, one option is to cut a 19 x 50 x 25 mm analytical specimen from the center of the ~~exposure specimen length~~exposed full-length specimen. This type of analytical specimen avoids end-grain effects.	
1393	AWPA E18 18 SECTION 10.0 PARA 1 PARA 1	**a.** Number of this AWPA standard and ~~date of its~~ publication date;	
1394	AWPA E18 18 SECTION 10.0 PARA 1 PARA 3	**c.** Density of the wood ~~used~~ test specimens;	
1395	AWPA E18 18 SECTION 10.0 PARA 1 PARA 9	**i.** Location of the exposure site(s)~~;~~, with appropriate climate data;	
1396	AWPA E18 18 SECTION 10.0 PARA 2	Since the samples are exposed to natural outdoor conditions during the test period, variations in test conditions from one area to another should be expected. Differences in climate, especially rainfall and temperature, will inevitably influence the general rate of decay. However, by comparing the results obtained for the test preservative with those obtained within the same experiment with untreated control samples, reference preservatives, as well as durable species, the relative protective effectiveness of the preservative under test can be evaluated. Reduction in the rate of decay of samples compared to untreated controls provides information on the system's preservative nature, and within a few years can show obvious efficacy and promise as a preservative system. Using the Ground Proximity Test Method to help determine retentions required to provide efficacy equivalent to established systems is much more difficult, and requires longer exposures. It may be beneficial to make relative comparisons with established systems such as CCA at concentrations considered marginal or on the verge of unacceptable in commercial use, and then provide a "safety" factor for retentions to provide acceptable performance. Comparisons with durable wood species that are acceptable for the end-use application will also be beneficial. ~~The method is applicable to the testing of commercial or experimental preservatives applied using techniques appropriate to commercial practice. The method is applicable to chemical products used individually or in combination to prevent the development of decay in wood and, where suitable, in wood-based products. The method may also, after appropriate modification, be used for testing natural durability.~~	

AWPA Technical Committee P-6
Fall 2023 Standardization Cycle

AWPA Standard E21-18

23F-P6-E21: Proposal to Reaffirm E21 without revision.

Proponent(s): Glenn Larkin

Committee Meeting Action: Unanimously authorized for letter ballot as SUBMITTED.

Letter Ballot Results:

Executive Committee Final Action:

Note: The information presented below shows only the proposed revisions for this standard in legislative format and/or any other actions to be taken by the committee, such as creation of a new standard or reaffirmation or withdrawal of an existing standard. To view the rationale and supporting data (if any) for each proposed revision, as well as to submit comments or questions, you must visit the AWPA Standards Development Platform - https://awpacommenting.edaptivedocs.org (member login required).

▼ID	Item	Proposed Change	Committee Status
1459	AWPA E21 18	**Additional Comment:** Reaffirm without Revisions	

AWPA Technical Committee P-6
Fall 2023 Standardization Cycle

AWPA Standard E31-18

23F-P6-E31: Proposal to revise E31 with minor changes.

Proponent(s): Rod Stirling

Committee Meeting Action: Unanimously authorized for letter ballot as SUBMITTED.

Letter Ballot Results:

Executive Committee Final Action:

Note: The information presented below shows only the proposed revisions for this standard in legislative format and/or any other actions to be taken by the committee, such as creation of a new standard or reaffirmation or withdrawal of an existing standard. To view the rationale and supporting data (if any) for each proposed revision, as well as to submit comments or questions, you must visit the AWPA Standards Development Platform - https://awpacommenting.edaptivedocs.org (member login required).

<table>
<tr><th>ID</th><th>▲Item</th><th>Proposed Change</th><th>Committee Status</th></tr>
<tr><td>1363</td><td>AWPA E31 18
SECTION 5.1</td><td>5.1 Wood Species. The wood species used should be selected from those species with a non-durable heartwood likely to be treated commercially for ground contact uses. This test method is of most relevance to refractory ~~difficult to treat~~ species.</td><td></td></tr>
<tr><td>1359</td><td>AWPA E31 18
SECTION 5.3</td><td>5.3 Sample Preparation. The test material shall be dried to a moisture content typically used commercially for treated wood, and shall be machined to 100±3 mm square with eased edges to better maintain coating integrity ~~of coating~~.</td><td></td></tr>
<tr><td>1360</td><td>AWPA E31 18
SECTION 8.1
[Table Data]</td><td>
<table>
<tr><th>Decay Rating</th><th>Condition of the board</th></tr>
<tr><td>10</td><td>Sound: no evidence of decay.</td></tr>
<tr><td>9.5</td><td>Trace or suspicion of attack.</td></tr>
<tr><td>9</td><td>Minor decay up to 3% of cross-section.</td></tr>
<tr><td>8</td><td>Moderate decay from 3-10% of cross-section. ~~Presence of a fruitbody is an automatic rating of no higher than 8.~~</td></tr>
<tr><td>7</td><td>Moderate/severe decay from10-30% of cross-section. Presence of a fruitbody is an automatic rating of no higher than 7.</td></tr>
<tr><td>6</td><td>Severe decay. Sample has between 30-50% of cross-section decayed.</td></tr>
<tr><td>4</td><td>Very severe decay with greater 50-75% of cross-section affected</td></tr>
<tr><td>0</td><td>Failure.</td></tr>
</table>
</td><td></td></tr>
</table>

AWPA Technical Committee P-6
Fall 2023 Standardization Cycle

AWPA Standard E32-18

23F-P6-E32: Proposal to revise E32 with minor changes.

Proponent(s): Rod Stirling

Committee Meeting Action: Unanimously authorized for letter ballot as SUBMITTED.

Letter Ballot Results:

Executive Committee Final Action:

Note: The information presented below shows only the proposed revisions for this standard in legislative format and/or any other actions to be taken by the committee, such as creation of a new standard or reaffirmation or withdrawal of an existing standard. To view the rationale and supporting data (if any) for each proposed revision, as well as to submit comments or questions, you must visit the AWPA Standards Development Platform - https://awpacommenting.edaptivedocs.org (member login required).

<table>
<tr><th>ID</th><th>▲Item</th><th>Proposed Change</th><th>Committee Status</th></tr>
<tr><td>1361</td><td>AWPA E32 18 SECTION 8.1</td><td colspan="2">8.1 Decay Assessment. After two, four, six, eight, and, ten years of exposure or other appropriate intervals determined by the operator, depending on local climate, each of the test units will be assessed for decay and the results recorded. This test method includes six test surfaces to be rated for decay: the vertical member top and bottom, the vertical face of the joint interior, ~~the bolt holes,~~ and the angle piece inside the joint, and at the exposed end.</td><td></td></tr>
<tr><td>1362</td><td>AWPA E32 18 SECTION 8.2 [Table Data]</td><td colspan="2"><table>
<tr><th>Decay Rating</th><th>Condition of the component</th></tr>
<tr><td>10</td><td>Sound: no evidence of decay.</td></tr>
<tr><td>9.5</td><td>Trace or suspicion of attack.</td></tr>
<tr><td>9</td><td>Minor decay up to 3% of cross-section.</td></tr>
<tr><td>8</td><td>Moderate decay from 3-10% of cross-section.
~~Presence of a fruitbody is an automatic rating of no higher than 8.~~</td></tr>
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<tr><td>6</td><td>Severe decay. Sample has between 30-50% of cross-section decayed.</td></tr>
<tr><td>4</td><td>Very severe decay with greater 50-75% of cross-section affected</td></tr>
<tr><td>0</td><td>Failure due to decay.</td></tr>
</table></td><td></td></tr>
</table>

AWPA Technical Committee P-6
Fall 2023 Standardization Cycle

AWPA Standard E33-18

23F-P6-E33: Proposal to revise E33 with minor changes.

Proponent(s): Rod Stirling

Committee Meeting Action: Unanimously authorized for letter ballot as SUBMITTED.

Letter Ballot Results:

Executive Committee Final Action:

Note: The information presented below shows only the proposed revisions for this standard in legislative format and/or any other actions to be taken by the committee, such as creation of a new standard or reaffirmation or withdrawal of an existing standard. To view the rationale and supporting data (if any) for each proposed revision, as well as to submit comments or questions, you must visit the AWPA Standards Development Platform - https://awpacommenting.edaptivedocs.org (member login required).

ID	▲Item	Proposed Change	Committee Status
1364	AWPA E33 18 SECTION 1.2	**1.2** In its most basic form the test exposes treated and untreated ~~stacked~~ wood-based samples to pure cultures of basidiomycete wood destroying organisms in sealed bins. Samples are inspected periodically to determine the extent of decay present. The strength of the technique lies in the fact that the performance of new preservative formulations is compared to that of preservatives known to be effective under the same conditions. The requirements for preparation of the material for testing and the test procedures appear in the following sections:	
1365	AWPA E33 18 SECTION 2.2	**2.2** Test bins. The test bins are ~~opaque and~~ of sufficient dimensions (e.g., 700 mm x 450 mm x 350 mm) to contain a layer of water~~, a wicking material~~, stickers, and the test samples. Test samples are separated with inert stickers with a minimum thickness of 10mm. Water shall be placed into the bottom of the bins and they shall be sealed and stored in the test bins chamber as specified in Section 2.1. Examples of suitable bins include the Sterilite 16877404 25-Gallon Ultra Tote or the Rubbermaid Commercial FG9S3100GRAY Brute Tote with Lid or similar.	
1366	AWPA E33 18 PARA 2	The test samples (preferred nominal 2x4) shall be prepared and treated as up to 750 mm long samples with a preferred depth of 90mm (nominal 4"). Sample thickness may vary depending on the material being tested, but should be a minimum of 30mm to a maximum of 60 mm wide (thick) preferably being 38mm (nominal 2"). Test samples should be conditioned to constant known moisture content prior to exposure to the test fungi and weighed. Final test specimens shall be end sealed with a two-part epoxy resin.	
1367	AWPA E33 18 SECTION 3.3	**3.3** Test Fungi. Test fungi shall be selected to challenge the test preservative. Guidance for fungal selection is provided in AWPA E10. The combination of *Gloeophyllum trabeum* and ~~*Postia*~~*Rhodonia placenta* covers a broad range of preferred moisture conditions and increases the probability of a valid test. Test fungi shall be inoculated on 2% malt agar and topped with sterile plastic mesh and a pine sapwood feeder strip measuring approximately 34 x 28 x 3 mm. Plates shall be incubated for approximately 4 weeks, until feeder strips are overgrown with mycelia. Colonized feeder strips shall be attached at each end on the exposed face.	

AWPA Technical Committee T-2
Fall 2023 Standardization Cycle

AWPA Standard T1-23, Section A

23F-T2-T1A: Proposal to revise T1(A) crossarm penetration.

Proponent(s): Andy Zahora

Committee Meeting Action: Unanimously authorized for letter ballot as SUBMITTED.

Letter Ballot Results:

Executive Committee Final Action:

Note: The information presented below shows only the proposed revisions for this standard in legislative format and/or any other actions to be taken by the committee, such as creation of a new standard or reaffirmation or withdrawal of an existing standard. To view the rationale and supporting data (if any) for each proposed revision, as well as to submit comments or questions, you must visit the AWPA Standards Development Platform - https://awpacommenting.edaptivedocs.org (member login required).

ID	▲Item	Proposed Change	Committee Status
1465	AWPA T1 SECTION A 23 SECTION 9.2 PARA 2	iv. 63 mm (2.5 in.) for 2.1 kg/m3 (0.13 pcf) DCOI 4,5-Dichloro-2-n-Octyl-4-Isothiazonlin-3-One Attachment(s): *T1 SecA 9.2 b Supporting data.pdf*	
1472	AWPA T1 SECTION A 23 SECTION 9.2 PARA 2	**b.** ~~The~~ Sampling of crossarms for heartwood penetration ~~(longitudinal from holes and ends)~~ in Douglas-fir, Western Larch and Western Hemlock shall be done at the following minimum longitudinal distances from holes and/or ends for the listed retention requirements.~~is required as follows:~~ Attachment(s): *T1 SecA 9.2 b Supporting data.pdf*	

AWPA Technical Committee T-2
Fall 2023 Standardization Cycle

AWPA Standard U1-23, Commodity Specification A

23F-T2-U1A: Proposal to revise U1(A) retentions for MCA.

WITHDRAWN BY PROPONENT PRIOR TO MEETING

Proponent(s): Doug Herdman

Committee Meeting Action: N/A

Letter Ballot Results: N/A

Executive Committee Final Action: N/A

Note: The information presented below shows only the proposed revisions for this standard in legislative format and/or any other actions to be taken by the committee, such as creation of a new standard or reaffirmation or withdrawal of an existing standard. To view the rationale and supporting data (if any) for each proposed revision, as well as to submit comments or questions, you must visit the AWPA Standards Development Platform - https://awpacommenting.edaptivedocs.org (member login required).

ID	▲Item	Proposed Change									Committee Disposition
1479	AWPA U1 COMM SPEC A 23 SECTION 3.0 [Table Data]21	**kg/m³** (SI units)	**Pines**				**Spruce**				**WITHDRAWN**
		Preservative	Southern Mixed Southern Radiata, Patula Caribbean	Ponderosa Red Eastern White	Scots Pine-Ger Scots Pine-Swe	Jack Lodgepole	Western White Engelmann Sitka Spruce	Spruce-Pine-Fir West	Coastal Douglas-fir[a]	Hem-fir Hem-fir North Eastern Hemlock Subalpine Fir	Redwood	
		CR (as solution)	160	160	#	160	160	#	160	160	160	
		CR-S (as solution)	160	160	#	160	160	#	160	160	160	
		CR-PS (as solution)	160	160	#	160	160	#	160	160	160	
		CuN (as Cu metal)[b]	1.2	1.2	#	#	1.2	#	1.2	1.2	#	
		DCOI-A	2.7	#	#	#	#	#	2.7	#	#	
		DCOI-C	2.7	#	#	#	#	#	#	#	#	
		PCP-A	8.0	8.0	#	8.0	8.0	#	8.0	8.0	8.0	
		PCP-C	8.0	8.0	#	8.0	8.0	#	8.0	8.0	8.0	
		ACQ-B[b]	9.6	9.6	#	#	9.6	#	9.6	9.6	#	
		ACQ-C[b]	9.6	9.6	9.6	9.6	9.6	9.6	#	9.6	#	
		ACQ-D[b]	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	#	
		ACZA[b]	9.6	9.6	#	9.6	9.6	9.6	9.6	9.6	9.6	
		CA-B[b]	5.0	5.0	5.0	5.0	#	#	5.0	5.0	#	
		CA-C[b]	5.0	5.0	5.0	#	#	#	5.0	5.0	#	
		CCA[b]	9.6	9.6	#	9.6	9.6	9.6	9.6	9.6	9.6	
		MCA[b]	~~5.0~~4.0	~~5.0~~4.0	~~5.0~~4.0	#	#	#	#	5.0	#	
		MCA-C[b]	5.0	#	#	#	#	#	#	5.0	#	

1480 AWPA U1 COMM SPEC A 23 SECTION 3.0 [Table Data]23

WITHDRAWN

pcf (US Customary units)	**Pines**				**Spruce**				
Preservative	Southern Mixed Southern Radiata, Patula Caribbean	Ponderosa Red Eastern White	Scots Pine-Ger Scots Pine-Swe	Jack Lodgepole	Western White Engelmann Sitka Spruce	Spruce-Pine-Fir West	Coastal Douglas-fir[a]	Hem-fir Hem-fir North Eastern Hemlock Subalpine Fir	Redwood
CR (as solution)	10.0	10.0	#	10.0	10.0	#	10.0	10.0	10.0
CR-S (as solution)	10.0	10.0	#	10.0	10.0	#	10.0	10.0	10.0
CR-PS (as solution)	10.0	10.0	#	10.0	10.0	#	10.0	10.0	10.0
CuN (as Cu metal)[b]	0.075	0.075	#	#	0.075	#	0.075	0.075	#
DCOI-A	0.17	#	#	#	#	#	0.17	#	#
DCOI-C	0.17	#	#	#	#	#	#	#	#
PCP-A	0.50	0.50	#	0.50	0.50	#	0.50	0.50	0.50
PCP-C	0.50	0.50	#	0.50	0.50	#	0.50	0.50	0.50
ACQ-B[b]	0.60	0.60	#	#	0.60	#	0.60	0.60	#
ACQ-C[b]	0.60	0.60	0.60	0.60	0.60	0.60	#	0.60	#
ACQ-D[b]	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	#
ACZA[b]	0.60	0.60	#	0.60	0.60	0.60	0.60	0.60	0.60
CA-B[b]	0.31	0.31	0.31	0.31	#	#	0.31	0.31	#
CA-C[b]	0.31	0.31	0.31	#	#	#	0.31	0.31	#
CCA[b]	0.60	0.60	#	0.60	0.60	0.60	0.60	0.60	0.60
MCA[b]	~~0.31~~0.25	~~0.31~~0.25	~~0.31~~0.25	#	#	#	#	0.31	#
MCA-C[b]	0.31	#	#	#	#	#	#	0.31	#

AWPA Technical Committee T-3
Fall 2023 Standardization Cycle

AWPA Standard T1-23, Section C

23F-T3-T1C: Proposal to revise T1(C) to include DCOI.

Proponent(s): Andy Zahora

Committee Meeting Action: Unanimously authorized for letter ballot as SUBMITTED.

Letter Ballot Results:

Executive Committee Final Action:

Note: The information presented below shows only the proposed revisions for this standard in legislative format and/or any other actions to be taken by the committee, such as creation of a new standard or reaffirmation or withdrawal of an existing standard. To view the rationale and supporting data (if any) for each proposed revision, as well as to submit comments or questions, you must visit the AWPA Standards Development Platform - https://awpacommenting.edaptivedocs.org (member login required).

ID	▲Item	Proposed Change	Committee Status
1438	AWPA T1 SECTION C 23 SECTION 3.0 PARA 1	The minimum preservative concentration for pentachlorophenol for refusal treatment shall be 5% wt/wt. The minimum preservative concentration for copper naphthenate for refusal treatment shall be 0.8% wt/wt copper as metal. The minimum preservative concentration for DCOI for refusal treatment shall be 1.7% wt/wt.	
1439	AWPA T1 SECTION C 23 SECTION 5.0 PARA 1	The net retention in any charge shall not be less than 90 percent of the retention specified, but the retention of 5 consecutive charges shall be at least 100 percent. When a contract comprises less than 5 charges, the net retention in any charge shall not be less than 95 percent of that specified. The retention of preservative solution retained shall be calculated after correcting the volume of preservative to 40°C (100°F) for creosote using tables from "Factors 1" in the AWPA Book of Standards and to 16°C (60°F) for pentachlorophenol, ~~or~~ copper naphthenate, or DCOI using tables from "Factors 2" in the AWPA Book of Standards. Alternatively, copper naphthenate and DCOI may be determined by assay. For SBX (DOT) pre-treated crossties and for SBX-O (boric acid) one-step treated crossties, boron retention is to be determined by gauge, or assay of a 0.0 to 2.0 inch assay zone. (Where Boultonizing is used in pre-treated crossties, some boron loss may occur.) In the event of a dispute, boron assay results shall take precedence. Other preservatives requiring retention results by assay shall refer to the assay zones in Standard T1, Section A, Table 11 for Sawn Products.	

AWPA Technical Committee T-3
Fall 2023 Standardization Cycle

AWPA Standard U1-23, Commodity Specification C

23F-T3-U1C: Proposal to revise U1(C) to include DCOI-A.

Proponent(s): Andy Zahora

Committee Meeting Action: Unanimously authorized for letter ballot as SUBMITTED.

Letter Ballot Results:

Executive Committee Final Action:

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ID	▲Item	Proposed Change	Committee Status

1440 AWPA U1 COMM SPEC C 23 SECTION 3.0 [Table Data]

Retentions in US Customary (pcf) units

Use Category System (UC4A, UC4B and UC4C)	Retention Specification by Gauge (pcf)							
	Creosote		4,5-Dichloro-2-N-Octyl-4-Isothiazolone-3-One	Pentachlorophenol	Cu Naphthenate[1]	Ammoniacal Copper Zinc Arsenate[2]	SBX Pre-Treatment[3]	Creosote SBX-O One Step Treatment[5]
Species	CR	CR-S, CR-PS	DCOI-A	PCP-A, PCP-C, PCP-G	CuN	ACZA	SBX[4]	SBX-O[5]
Oak and Hickory	7.0 or Refusal	7.0 or Refusal	~~#~~0.11 or Refusal[1]	0.35 or Refusal	0.055 or Refusal	0.40	0.17	0.17
Mixed Hardwoods	7.0	7.0	~~#~~0.11[1]	0.35	0.060	0.40	0.17	0.17
Southern and Ponderosa Pine	8.0	8.0	~~#~~0.13[2]	0.40	0.060	0.40	0.17	0.17
Coastal Douglas-fir, Western Hemlock, Western Larch	8.0 or Refusal	8.0	0.13[2]	0.40	0.060	0.40	#	#
Intermountain Douglas-fir	Refusal	Refusal	#	Refusal	#	#	#	#
Jack, Red & Lodgepole Pine	6.0	7.0	#	#	#	0.40	#	#

Attachment(s): *DCOI-A MHW OAK data supoort.pdf*

1441 AWPA U1 COMM SPEC C 23 SECTION 3.0 [Table Data]2

Retentions in SI (kg/m^3) units

Use Category System (UC4A, UC4B and UC4C)	Retention Specification by Gauge (kg/m^3)							
	Creosote		4,5-Dichloro-2-N-Octyl-4-Isothiazolone-3-One	Pentachlorophenol	Cu Naphthenate[1]	Ammoniacal Copper Zinc Arsenate[2]	SBX Pre-Treatment[3]	Creosote SBX-O One Step Treatment[5]
Species	**CR**	**CR-S, CR-PS**	**DCOI-A**	**PCP-A, PCP-C, PCP-G**	**CuN**	**ACZA**	**SBX[4]**	**SBX-O[5]**
Oak and Hickory	112 or Refusal	112 or Refusal	#1.8 or Refusal[1]	5.6 or Refusal	0.88 or Refusal	6.4	2.7	2.7
Mixed Hardwoods	112	112	#1.8[1]	5.6	0.96	6.4	2.7	2.7
Southern and Ponderosa Pine	128	128	#2.1[2]	6.4	0.96	6.4	2.7	2.7
Coastal Douglas-fir, Western Hemlock, Western Larch	128 or Refusal	128	2.1[2]	6.4	0.96	6.4	#	#
Intermountain Douglas-fir	Refusal	Refusal	#	Refusal	#	#	#	#
Jack, Red & Lodgepole Pine	96 (6.0)	112	#	#	#	6.4	#	#

1442 AWPA U1 COMM SPEC C 23 SECTION 3.0 [Table Data]3

Footnotes:

[1] May also be determined by assay.

[2] Retention to be determined by assay.

[3] SBX pre-treated ties shall be secondarily treated with CR, CR-S, CR-PS, ~~or~~ CuN, or DCOI (for which data is submitted) for this commodity at the retention shown above.

[4] The only acceptable formulation of SBX for pre-treatment of this commodity is sodium octaborate (DOT) since all supporting data is based on DOT at 0.25 pcf (4.0 kg/m^3) which is equivalent to 0.17 pcf (2.7 kg/m^3) B_2O_3 (SBX).

[5] CR, CR-S retentions shall be those shown above in Table 3. The only acceptable SBX-O preservative is oilborne boric acid per Standard P60.

= Either no proposal for standardization and/or data demonstrating efficacy of a preservative/species combination has been submitted to AWPA; or the use of the preservative/species combination has been proven ineffective.

AWPA Technical Committee T-4
Fall 2023 Standardization Cycle

AWPA Standard U1-23, Commodity Specification B

23F-T4-U1B: Proposal to revise U1(B) to include CR-PS.

TYPOGRAPHICAL ERROR CORRECTED DURING MEETING.

Proponent(s): Craig McIntyre

Committee Meeting Action: Unanimously authorized for letter ballot as CORRECTED.

Letter Ballot Results:

Executive Committee Final Action:

Note: The information presented below shows only the proposed revisions for this standard in legislative format and/or any other actions to be taken by the committee, such as creation of a new standard or reaffirmation or withdrawal of an existing standard. To view the rationale and supporting data (if any) for each proposed revision, as well as to submit comments or questions, you

ID	▲Item	Proposed Change	Committee Status

1467 AWPA U1 COMM SPEC B 23 TABLE 4.2.1 [Table Data]

Preservative	Pines						Douglas-Fir		Western Redcedar	Western Larch
	Southern	Ponderosa	Jack	Lodgepole	Red	Radiata	Coastal	Interior		
Modified Exposure (Farm Use) -- kg/m³										
CR (a)	120	120	192	192	168	#	144	256	256	256
CR-S (a)	120	120	192	192	168	#	144	256	256	256
CR-PS (a)	120	120	192	192	168	#	144	256	256	256
DCOI-A (c)	2.1	2.1	#	3.2	2.8	#	2.4	#	2.7	#
PCP-A & PCP-C (b)	6.1	6.1	9.6	9.6	8.5	#	7.2	8.0	8.0	8.0
ACQ-B	9.6	9.6	9.6	9.6	9.6	#	9.6	9.6	9.6	9.6
ACQ-C	9.6	#	#	#	9.6	9.6	#	#	#	#
ACQ-D	9.6	#	#	9.6	9.6	9.6	9.6	#	9.6	#
ACZA	9.6	9.6	9.6	9.6	9.6	#	9.6	9.6	9.6	9.6
CA-B	5.0	#	#	5.0	5.0	#	#	#	5.0	#
CA-C	5.0	#	#	5.0	5.0	#	#	#	5.0	#
CCA	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6
MCA	5.0	#	#	#	#	#	#	#	#	#
Modified Exposure (Farm Use) -- pcf										
CR (a)	7.5	7.5	12	12	10.5	#	9.0	16	16	16
CR-S (a)	7.5	7.5	12	12	10.5	#	9.0	16	16	16
CR-PS (a)	7.5	7.5	12	12	10.5	#	9.0	16	16	16
DCOI-A (c)	0.13	0.13	#	0.20	0.18	#	0.15	#	0.17	#
PCP-A & PCP-C (b)	0.38	0.38	0.60	0.60	0.53	#	0.45	0.50	0.50	0.50
ACQ-B	0.60	0.60	0.60	0.60	0.60	#	0.60	0.60	0.60	0.60
ACQ-C	0.60	#	#	#	0.60	0.60	#	#	#	#
ACQ-D	0.60	#	#	0.60	0.60	0.60	0.60	#	0.60	#

ACZA	0.60	0.60	0.60	0.60	0.60	#	0.60	0.60	0.60	0.60
CA-B	0.31	#	#	0.31	0.31	#	#	#	0.31	#
CA-C	0.31	#	#	0.31	0.31	#	#	#	0.31	#
CCA	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
MCA	0.31	#	#	#	#	#	#	#	#	#

Attachment(s): *Data Package CR-PS FINAL.pdf*

AWPA Technical Committee T-4
Fall 2023 Standardization Cycle

AWPA Standard U1-23, Commodity Specification D

23F-T4-U1D: Proposal to revise U1(D) to include CR-PS.

Proponent(s): Craig McIntyre

Committee Meeting Action: Unanimously authorized for letter ballot as SUBMITTED.

Letter Ballot Results:

Executive Committee Final Action:

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▼ID	Item	Proposed Change	Committee Status
1468	AWPA U1 COMM SPEC D 23 SECTION 4.4A RESULTS OF TREATMENT (RETENTION) FOR POLES TREATED USING THE PRESSURE PROCESS [Table Data]		

Species	Oil-Type Preservative Retentions (pcf)				Waterborne Preservative Retentions (pcf a.i.)					
	CR, CR-S, CR-PS solution	PCP-A, PCP-C ai	DCOI-A ai	CuN Cu as metal	ACZA	CCA(b)	ACQ-B	CA-B	CA-C	MCA
Use Category 4A – pcf										
Southern Pine	6.0	0.30	0.10	0.060	0.60	0.60	0.60	0.31	0.31	0.31
Coastal Douglas fir – Outer zone	9.0	0.45	0.15	0.075	0.60	0.60	0.60	#	#	#
Coastal Douglas fir – Inner zone (a)	4.5	0.23	#	0.038	0.30	0.30	0.30			
Jack Pine	12.0	0.60	#	0.095	0.60	0.60	0.60	#	#	#
Red Pine	10.0	0.50	0.17	0.075	0.60	0.60	0.60	#	#	#
Lodgepole Pine	12.0	0.60	0.20	0.095	0.60	0.60	0.60	#	#	#
Radiata Pine (Chilean)	#	#	#	#	#	0.60	#	#	#	#
Western Red Cedar	20.0	1.0	0.33	0.12	0.60	0.60	0.60	0.31	0.31	#
Alaska Yellow Cedar	20.0	1.0	0.33	0.12	0.60	0.60	0.60	#	#	#
Western Larch	16.0	0.80	0.27	0.120	0.60	0.60	0.60	#	#	#
Ponderosa Pine	6.0	0.30	0.10	0.060	0.60	0.60	0.60	#	#	#
Use Category 4B –pcf										
Southern Pine	7.5	0.38	0.13	0.080	0.60	0.60	0.60	0.31	0.31	0.31

Coastal Douglas fir – Outer zone	9.0	0.45	0.15	0.095	0.60	0.60	0.60	#	#	#
Inner zone (a)	4.5	0.23	#	0.048	0.30	0.30	0.30			
Jack Pine	12.0	0.60	#	0.095	0.60	0.60	0.60	#	#	#
Red Pine	10.0	0.50	0.17	0.095	0.60	0.60	0.60	#	#	#
Lodgepole Pine	12.0	0.60	0.20	0.095	0.60	0.60	0.60	#	#	#
Radiata Pine (Chilean)	#	#	#	#	#	0.60	#	#	#	#
Western Red Cedar	20.0	1.0	0.33	0.12	0.60	0.60	0.60	0.31	0.31	#
Alaska Yellow Cedar	20.0	1.0	0.33	0.12	0.60	0.60	0.60	#	#	#
Western Larch	16.0	0.80	0.27	0.120	0.60	0.60	0.60	#	#	#
Ponderosa Pine	7.5	0.38	0.13	0.080	0.60	0.60	0.60	#	#	#
Use Category 4C –pcf										
Southern Pine	9.0	0.45	0.15	0.13	0.60	0.60	0.60	0.31	0.31	0.31
Coastal Douglas fir – Outer zone	12.0	0.60	0.20	0.15	0.60	0.60	0.60	#	#	#
Inner zone (a)	6.0	0.30	#	0.075	0.30	0.30	0.30			
Jack Pine	16.0	0.80	#	0.12	0.60	0.60	0.60	#	#	#
Red Pine	12.0	0.60	0.20	0.15	0.60	0.60	0.60	#	#	#
Lodgepole Pine	16.0	0.80	0.27	0.12	0.60	0.60	0.60	#	#	#
Radiata Pine (Chilean)	#	#	#	#	#	0.60	#	#	#	#
Western Red Cedar	20.0	1.0	0.33	0.12	0.60	0.60	0.60	0.31	0.31	#
Alaska Yellow Cedar	20.0	1.0	0.33	0.12	0.60	0.60	0.60	#	#	#
Western Larch	16.0	0.80	0.27	0.150	0.60	0.60	0.60	#	#	#
Ponderosa Pine	9.0	0.45	0.15	0.13	0.60	0.60	0.60	#	#	#

Attachment(s): *Data Package CR-PS FINAL.pdf*

AWPA Technical Committee T-7
Fall 2023 Standardization Cycle

AWPA Standard M6-18

23F-T7-M6: Proposal to revise M6 with updates to preservative codes.

Proponent(s): Butch Bernhardt

Committee Meeting Action: Unanimously authorized for letter ballot as SUBMITTED.

Letter Ballot Results:

Executive Committee Final Action:

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ID	▲Item	Proposed Change	Committee Status
1354	AWPA M6 18 [Table Data]4	NW --Copper Naphthenate, waterborne	
1355	AWPA M6 18 [Table Data]5	***Inorganic Preservatives*** ~~SA —Acid Copper Chromate (ACC)~~ ~~SB —Ammoniacal Copper Arsenate (ACA)~~ SG —Alkali Copper Quat (ACQ Type C) SH —Copper HDO (CX Type A) SK —Chromated Copper Arsenate (CCA Type C) SQ —Ammoniacal Copper Quat (ACQ Type B) SR —Amine Copper Quat (ACQ Type D) ~~ST —Copper Boron Azole (CBA Type A)~~ SU —Copper Azole (CA Type B) SX —Inorganic Boron (SBX) SZ —Ammoniacal Copper Zinc Arsenate (ACZA)	
1356	AWPA M6 18 [Table Data]5	SM —Micronized Copper Azole (MCA) SN —Micronized Copper Azole (MCA-C) SV —Copper Azole (CA Type C)	
1357	AWPA M6 18 [Table Data]6	SA —Acid Copper Chromate (ACC) SB —Ammoniacal Copper Arsenate (ACA) ST —Copper Boron Azole (CBA Tyle A)	

AWPA Technical Committee T-7
Fall 2023 Standardization Cycle

AWPA Standard M22-22

23F-T7-M22: Proposal to revise M22 with changes to inspection statuses.

Proponent(s): Kim Merritt

Committee Meeting Action: Unanimously authorized for letter ballot as SUBMITTED.

Letter Ballot Results:

Executive Committee Final Action:

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ID	▲Item	Proposed Change	Committee Status
1475	AWPA M22 22 SECTION 2.3	**2.3 Increased Inspection Status.** The third-party agency shall return within 2 weeks of plant notification to inspect representative inventory and calculate new LCLs and APCCs. For each production category, if the new LCL and APCC meet the criteria for *Routine Frequency Status*, the plant shall return to *Routine Frequency Status*. If the new LCL and APCC do not both meet the criteria for *Routine Frequency Status* the plant shall be placed on *Warning Inspection Status*.~~, however, if all charges are conforming the plant shall maintain *Increased Inspection Status*.~~ Attachment(s): *AWPA Standard M22 - PROPOSED REVISION TO ROUTINE FREQUENCY STATUS REQUIREMENTS.pdf*	
1476	AWPA M22 22 SECTION 2.4	**2.4 Warning Inspection Status.** The third-party agency shall return within 2 weeks of plant notification to inspect representative inventory and calculate new LCLs and APCCs. For each production category, if the new LCL and APCC meet the criteria for *Routine Frequency Status*, the plant shall return to *Increased Inspection Status*. If the new LCL and APCC do not both meet the criteria for *Routine Frequency Status* the plant shall be placed on *Disqualification Status*.~~, however, if all charges are conforming the plant shall maintain *Warning Inspection Status*.~~ Attachment(s): *AWPA Standard M22 - PROPOSED REVISION TO ROUTINE FREQUENCY STATUS REQUIREMENTS.pdf*	
1477	AWPA M22 22 SECTION 2.6	**2.6 Requalification.** For each production category, after being notified of disqualification, a plant may requalify when the third-party agency samples enough charges to complete a new 20 charge sample set with an LCL and APCC that meet the criteria for *Routine Frequency Status*. Plants must requalify with the same third-party agency that placed them on *Disqualification Status*. Plants that requalify shall be placed in the *Increased Inspection Status* and be allowed to resume quality-marking. 2.7 Conforming Inspections. For plants in Routine, Increased, or Warning Status, when all inspection samples are found to be conforming, the plant shall maintain the current inspection status. Attachment(s): *AWPA Standard M22 - PROPOSED REVISION TO ROUTINE FREQUENCY STATUS REQUIREMENTS.pdf*	

1478	AWPA M22 22 SECTION 4.2.6	**4.2.6 Destination Inspections.** Third-party agencies inspect some treated wood at destinations. Destination inspections may consist of a single charge or multiple charges grouped as "lots". Acceptance of product at destination shall be solely on the basis of third-party findings. 4.2.7 Overtreatments. Causes of overtreatment for preservative retention may include, but are not limited to, process anomalies such as mechanical or instrumentation malfunction, solution strength adjustments between higher and lower target retentions, over-corrections to address low retentions, incorrect tallies, etc. When an overtreatment occurs, and the plant wishes to exclude the charge(s) from M22 retention data, the plant may choose to document the incident with all supporting evidence including IQC results for the affected charge(s). Charges identified as overtreated by the plant shall not be intentionally excluded from the range of production randomly sampled by Third Party during subsequent inspections. However, if material from a charge identified as overtreated by the plant is reinspected by the Agency through the routine sampling process and found to be conforming for both penetration and retention, the sample shall be biased. If the charge(s) is found nonconforming, it shall be included in the plant's M22 sample data set for APCC or APCC/LCL.	

AWPA Technical Committee T-8
Fall 2023 Standardization Cycle

AWPA Standard U1-23, Commodity Specification F

23F-T8-U1F: Proposal to revise U1(F) with changes to include MCA in glulam (prior to assembly).

Proponent(s): Min Chen

Committee Meeting Action: Unanimously authorized for letter ballot as SUBMITTED.

Letter Ballot Results:

Executive Committee Final Action:

Note: The information presented below shows only the proposed revisions for this standard in legislative format and/or any other actions to be taken by the committee, such as creation of a new standard or reaffirmation or withdrawal of an existing standard. To view the rationale and supporting data (if any) for each proposed revision, as well as to submit comments or questions, you must visit the AWPA Standards Development Platform - https://awpacommenting.edaptivedocs.org (member login required).

ID	▲Item	Proposed Change	Committee Status

1469 AWPA U1 COMM SPEC F 23 SECTION 3.3A PRESERVATIVE RETENTIONS (KG/M3) --- STRUCTURAL GLUED LAMINATED OR MECHANICALLY FASTENED TIMBER (LAMINATIONS TREATED PRIOR TO ASSEMBLY) [Table Data]

	Preservative System																
	Creosote[a]			PCP-A[a]													
USE CATEGORY Species	CR	CR-S	CR-PS	PCP-C[a]	DCOI-C	Cu8[a]	CuN[a]	ACQ-A	ACQ-C	ACZA	CCA-C	CA-C	KDS	KDS-B	PTI	MCA	MCA-C
UC1, UC2																	
Southern Pine	128	128	#	4.8	1.6	0.32	0.64	4.0	4.0	4.0	4.0	1.0	3.0	2.2	0.21	1.0	0.80
Coastal Douglas-fir, Western Hemlock, Hem-fir	128	#	128	4.8	#	0.32	0.64	4.0	4.0	4.0	4.0	1.0	3.0	2.2	0.21	#	#
UC3A																	
Southern Pine	128	128	#	4.8	1.6	0.32	0.64	4.0	4.0	4.0	4.0	1.0	3.0	2.2	0.29	1.0	1.0
Coastal Douglas-fir, Western Hemlock, Hem-fir	128	#	128	4.8	#	0.32	0.64	4.0	4.0	4.0	4.0	1.0	3.0	2.2	0.29	#	#
UC3B																	
Southern Pine	128	128	#	4.8	1.6	0.32	0.64	6.4	6.4	4.0	4.0	2.4	7.5	#	#	2.4	2.4
Coastal Douglas-fir, Western Hemlock, Hem-fir	128	#	128	4.8	#	0.32	0.64	6.4	6.4	4.0	4.0	2.4	7.5	#	#	#	#
UC4A																	
Southern Pine	160	160	#	9.6	3.2	#	0.96	6.4	6.4	6.4	6.4	2.4	#	#	#	2.4	2.4
Coastal Douglas-fir, Western Hemlock, Hem-fir	160	#	160	9.6	#	#	0.96	6.4	6.4	6.4	6.4	2.4	#	#	#	#	#

Attachment(s): *U1 Commodity Specification F reaffirmation - MCA.pdf*

1470	AWPA U1 COMM SPEC F 23 SECTION 3.3B PRESERVATIVE RETENTIONS (PCF) --- STRUCTURAL GLUED LAMINATED OR MECHANICALLY FASTENED TIMBER (LAMINATIONS TREATED PRIOR TO ASSEMBLY) [Table Data]	

	Preservative System																	
	Creosote[a]			PCP-A[a] PCP-C[a]	DCOI-C	Cu8[a]	CuN[a]	ACQ-A	ACQ-C	ACZA	CCA-C	CA-C	KDS	KDS-B	PTI	MCA	MCA-C
USE CATEGORY Species	**CR**	**CR-S**	**CR-PS**														
UC1, UC2																	
Southern Pine	8.0	8.0	#	0.30	0.10	0.020	0.040	0.15	0.25	0.25	0.25	0.060	0.19	0.14	0.013	0.060	0.050
Coastal Douglas-fir, Western Hemlock, Hem-fir	8.0	#	8.0	0.30	#	0.020	0.040	0.15	0.25	0.25	0.25	0.060	0.19	0.14	0.013	#	#
UC3A																	
Southern Pine	8.0	8.0	#	0.30	0.10	0.020	0.040	0.15	0.25	0.25	0.25	0.060	0.19	0.14	0.018	0.060	0.060
Coastal Douglas-fir, Western Hemlock, Hem-fir	8.0	#	8.0	0.30	#	0.020	0.040	0.15	0.25	0.25	0.25	0.060	0.19	0.14	0.018	#	#
UC3B																	
Southern Pine	8.0	8.0	#	0.30	0.10	0.020	0.040	0.40	0.40	0.25	0.25	0.15	0.47	#	#	0.15	0.15
Coastal Douglas-fir, Western Hemlock, Hem-fir	8.0	#	8.0	0.30	#	0.020	0.040	0.40	0.40	0.25	0.25	0.15	0.47	#	#	#	#
UC4A																	
Southern Pine	10	10	#	0.60	0.20	#	0.060	0.40	0.40	0.40	0.40	0.15	#	0.29	#	0.15	0.15
Coastal Douglas-fir, Western Hemlock, Hem-fir	10	#	10	0.60	#	#	0.060	0.40	0.40	0.40	0.40	0.15	#	0.29	#	#	#

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