

# Board of Review

## American Lumber Standard Committee, Incorporated

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VIA E-MAIL

TO: ALSC MEMBERS & ALTERNATES  
FROM: THOMAS D. SEARLES  
DATE: JANUARY 23, 2012  
SUBJ: CONFERENCE CALL

The Board of Review will meet by conference call on February 23, 2012.  
An agenda is attached.

Below is the call-in information:

**Date:** February 23, 2012

**Time:** 1 PM EST

**Toll Free Dial in Number:** 800-326-0013

**Outside of the US:** 203-702-1000

**Participant Code:** 1245363

**If you want further information please contact the ALSC office.**

TDS:tw

cc: Board of Review  
Counsel  
Other Interested Parties

Attachment

## **AGENDA**

### **BOARD OF REVIEW MEETING**

**February 23 , 2012**

#### **I. ANTITRUST STATEMENT**

#### **II. MINUTES OF THE LAST MEETING**

#### **III. CANADIAN MILL SERVICES ASSOCIATION (CMSA) REQUEST**

CMSA has requested to be an accredited agency under the ALSC Residential/Commercial Densified Fuel Policy (Wood Pellet Program). The Board will consider the request.

#### **IV. SOUTHERN PINE INSPECTION BUREAU (SPIB) REQUESTS**

- A. SPIB has submitted design values for No.2 Dense and No.2 Non-Dense 2 to 4 inches thick and 2 to 4 inches wide. These design values were approved by the SPIB Board of Governors on January 18, 2012. This information has been submitted to the FPL for review.
- B. SPIB has informed the Board of its intention to add additional MSR/MEL classifications to the SPIB rules. These additional classifications are presented in the SPIB Supplements No. 10 and 11.

#### **V. TWIN PORTS TESTING, INC. REQUEST**

Twin Ports Testing Inc, Superior, WI has requested to be an accredited laboratory to provide analysis of densified fuel under the ALSC Residential/Commercial Densified Fuel Policy (Wood Pellet Program). The Board will consider the request.

**If anyone has comments on any agenda item, or needs further information, please notify the ALS office.**



## Southern Pine Inspection Bureau, Inc.

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23 January 2012

By Email

Mr. Thomas D. Searles  
American Lumber Standard Committee  
P.O. Box 210  
Germantown, MD 20875-0210

Dear Mr. Searles,

Please find attached, as Attachments (1) and (2), revisions to the Southern Pine Inspection Bureau Interim Design Values for Southern Pine. A complete Supplement 9 is included in order to consolidate the design value decision.

The Board of Review issued a clarification as to what grades were included in their decision with the rationale that the No.2 2x4 test cell provided the basis for the examples given. No.2 classified as dense and No.2 classified as non-dense also have design values based upon the No.2 test values. It has come to our attention that there is need to be absolutely specific in this matter as there may still be a lack of clarity as to whether the ruling applies to any size but a 2x4 and whether design values for classifications of 2x4 not included in our original submission would retain their 1991 values, even in the face of the actual testing.

We request that the ALSC Board of Review approve replacement of No.2 Dense and Non-Dense design values, specify that their decision applies to lumber 2-4 inches thick, 2-4 inches wide, Southern Pine and Mixed Southern Pine, as listed in the attached Supplement No.9.

Sincerely,

Robert M. Browder  
Secretary  
Southern Pine Inspection Bureau

Enclosure: (1) Summary and Rationale  
(2) SPIB Supplement No.9

Cc: USDA Forest Products Laboratory





**Supplement No. 9**  
**to the Southern Pine Inspection Bureau 2002 Grading Rules**  
**Effective June 1, 2012**

**Awaiting Approval by the ALSC-BOR on No. 2 DNS and No. 2N**

This supplement makes no changes in the provisions of the 2002 SPIB Standard Grading Rules except the changes to the design values as listed in Tables 1.A, 3, 6, and 7.

**TABLE 1.A - STRUCTURAL LIGHT FRAMING - 2" To 4" Thick**

Grade	Extreme Fiber in Bending (psi) "F <sub>b</sub> "	Tension Parallel To Grain (psi) "F <sub>t</sub> "	Horizontal Shear (psi) "F <sub>v</sub> "	Compression Perpendicular To Grain (psi) "F <sub>cL</sub> "	Compression Parallel To Grain (psi) "F <sub>c//</sub> "	Modulus of Elasticity (million psi) "E"
<b>Kiln Dried or S-Dry, MC 15, MC 19</b>						
<i>APPLIES TO 2" - 4" THICK - 2" - 4" WIDE ONLY</i>						
No. 2 Dense	1150	750	175	660	1250	1.5
No. 2	1050	650	175	565	1100	1.4
No. 2 N	975	575	175	480	1050	1.2
No. 3 & Stud	600	375	175	565	625	1.2

**TABLE 3 - LIGHT FRAMING- 2" To 4" Thick**

Grade	Extreme Fiber in Bending (psi) "F <sub>b</sub> "	Tension Parallel To Grain (psi) "F <sub>t</sub> "	Horizontal Shear (psi) "F <sub>v</sub> "	Compression Perpendicular To Grain (psi) "F <sub>cL</sub> "	Compression Parallel To Grain (psi) "F <sub>c//</sub> "	Modulus of Elasticity (million psi) "E"
<b>Kiln Dried or S-Dry, MC 15, MC 19</b>						
<i>APPLIES TO 2" - 4" THICK - 2" - 4" WIDE ONLY</i>						
Construction	800	500	175	565	1150	1.3
Standard	450	275	175	565	950	1.2
Utility	200	125	175	565	625	1.1

**TABLE 6 - MIXED SOUTHERN PINE (Virginia Pine and Pond Pine) - 2" To 4" Thick**  
**STRUCTURAL LIGHT FRAMING**

Grade	Extreme Fiber in Bending (psi) "F <sub>b</sub> "	Tension Parallel To Grain (psi) "F <sub>t</sub> "	Horizontal Shear (psi) "F <sub>v</sub> "	Compression Perpendicular To Grain (psi) "F <sub>cL</sub> "	Compression Parallel To Grain (psi) "F <sub>c//</sub> "	Modulus of Elasticity (million psi) "E"
<b>Kiln Dried or S-Dry, MC 15, MC 19</b>						
<i>APPLIES TO 2" - 4" THICK - 2" - 4" WIDE ONLY</i>						
No. 2	1050	650	175	565	1100	1.4
No. 3 & Stud	600	375	175	565	625	1.2

**TABLE 7 - MIXED SOUTHERN PINE (Virginia Pine and Pond Pine)**  
**LIGHT FRAMING- 2" To 4" Thick**

Grade	Extreme Fiber in Bending (psi) "F <sub>b</sub> "	Tension Parallel To Grain (psi) "F <sub>t</sub> "	Horizontal Shear (psi) "F <sub>v</sub> "	Compression Perpendicular To Grain (psi) "F <sub>cL</sub> "	Compression Parallel To Grain (psi) "F <sub>c//</sub> "	Modulus of Elasticity (million psi) "E"
<b>Kiln Dried or S-Dry, MC 15, MC 19</b>						
<i>APPLIES TO 2" - 4" THICK - 2" - 4" WIDE ONLY</i>						
Construction	800	500	175	565	1150	1.3
Standard	450	275	175	565	950	1.2
Utility	200	125	175	565	625	1.1

Approved by the Board of Governors of the Southern Pine Inspection Bureau.

**Supplement to the Submission of Revised Design Values for Visually Graded  
Southern Pine Lumber – to include Dense and Non-dense #2 2-4 Inches Wide, 2-  
4 Inches Thick**

January 2012

In the original In-Grade testing, the tested pieces of lumber were sorted into dense and non-dense categories. The characteristic values determined for these sorts were then compared to the characteristic values for unclassified lumber of the two tested grades (SS and #2). These increase factors varied by grade and property as shown below:

Table 1. Dense and Non Dense Factors from the original In-grade Testing

Grade	Property	Dense	Non Dense
SS	MOR	1.06	0.92
	MOE	1.03	0.94
	UTS	1.06	0.86
	UCS	1.07	0.93
#2	MOR	1.16	0.92
	MOE	1.07	0.90
	UTS	1.06	0.94
	UCS	1.12	0.95

These factors were applied to the unclassified SS and #2 values for each size to obtain dense and non dense values. The #1 dense and non dense values for each size were calculated using the grade model.

A similar procedure can be used to consider #2D and #2N from the current test data. Factors for MOR, MOE and UTS can be calculated for the #2 2x4. The following tables shows the breakout of dense and non-dense vs. unclassified material for the 2011 2x4 sample.

Table 2. Observed increase factors for Dense in the 2011 2x4 #2 sample – Values at Characteristic Size

	n	TLOS	MOR	n	TLOS	UTS	n	Avg E
Dense	207	8	1972	216	9	1256	419	1.53
Unclassified	409	17	1784	410	18	1105	813	1.37
Factor			1.105			1.137		1.117

Table 3. Observed reduction factors for Non-dense in the 2011 2x4 #2 sample – Values at Characteristic Size.

	n	TLOS	MOR	n	TLOS	UTS	n	Avg E
Non-dense	202	8	1658	194	8	975	396	1.21
Unclassified	409	17	1784	410	18	1105	813	1.37
Factor			0.929			0.882		0.883

For Compression parallel to grain, the #2 factors observed in the original InGrade testing are assumed. That is, an increase of 1.12 for dense material and a reduction to 0.95 for nondense material. For shear and compression perpendicular to grade, no changes are proposed from what is currently used for dense and non-dense values.

**Table 4. 2x4 Property Estimates**

All Values Given at 15% MC, 73°F  
 Length at Characteristic Size –12’  
 MOE given in 10<sup>6</sup> psi  
 MOR, UTS, UCS given in psi.

Grade / Classification		Tolerance Limits			Mean MOE
		MOR	UTS	UCS	
No.2	Dense	2436	1551	2305	1.5
	Unclassified	2204	1365	2058	1.4
	Non-Dense	2048	1204	1955	1.2
No.3	Unclassified	1273	788	1187	1.2
Construction	Unclassified	1665	1031	2216	1.3
Standard	Unclassified	930	577	1820	1.2
Utility	Unclassified	441	273	1187	1.1

**Table 5. Southern Pine and Mixed Southern Pine Reference Design Values for 2-4 Inches Wide, 2-4 Inches Thick**

MOE given in  $10^6$  psi  
MOR, UTS, UCS given in psi.

Grade		F <sub>b</sub>	F <sub>t</sub>	F <sub>v</sub>	F <sub>c⊥</sub>	F <sub>c//</sub>	E
No.2	Dense	1150	750	175	660	1250	1.5
	Unclassified	1050	650	175	565	1100	1.4
	Non-Dense	975	575	175	480	1050	1.2
No.3 & Stud	Unclassified	600	375	175	565	625	1.2
Construction	Unclassified	800	500	175	565	1150	1.3
Standard	Unclassified	450	275	175	565	950	1.2
Utility	Unclassified	200	125	175	565	625	1.1