



A **Schnitzer**  Company

CASCADE STEEL ROLLING MILLS, INC.
 3200 N Highway 99W P.O. Box 687
 McMinnville, Oregon 97128-9399

January 1, 2017

CERTIFICATE OF COMPLIANCE

As indicated on the Mill Test Reports, I certify that the melting and the manufacturing processes of Cascade Steel Rolling Mills, Inc. occurred in the United States of America, in accordance with the Buy America Act. *1 Our reinforcing steel conforms to ASTM A615-16, Grade 40, 60, 75, 80 or 100 or ASTM A706-16 Grade 60 or 80 as indicated on test reports. The steel shipped is in fact composed of the heats indicated on the Mill Test Report and is represented by results obtained on heat samples tested in accordance with ASTM A615-16 or ASTM A706-16 specifications for sampling, chemical analysis, physical testing and measuring. The average spacing and height of deformations have been measured and found to be in accordance with the requirements of ASTM A615-16 or ASTM A706-16 as indicated on the mill test report.

CHEMICAL REQUIREMENTS								
Element Max %	Grade	ASTM A615-16					ASTM A706-16	
		40	60	75	80	100	60	80
Carbon		n/a	n/a	n/a	n/a	n/a	0.30	0.30
Manganese		n/a	n/a	n/a	n/a	n/a	1.50	1.50
Phosphorus		0.06	0.06	0.06	0.06	0.06	0.035	0.035
Sulfur		n/a	n/a	n/a	n/a	n/a	0.045	0.045
Silicon		n/a	n/a	n/a	n/a	n/a	0.50	0.50
Carbon Equivalent Maximum		n/a	n/a	n/a	n/a	n/a	0.55	0.55

TENSILE REQUIREMENTS								
	Grade	ASTM A615-16					ASTM A706-16	
		40	60	75	80	100	60	80
Tensile Strength, min, psi [MPa]		60000 [420]	90000 [620]	100000 [690]	105000 [725]	115000 [790]	80000 [550] ²	100000 [690] ²
Yield Strength, min, psi [MPa]		40000 [280]	60000 [420]	75000 [520]	80000 [550]	100000 [690]	60000 [420]	80000 [550]
Yield Strength, max, [MPa]		n/a	n/a	n/a	n/a	n/a	78000 [540]	98000 [675]
Elongation in 8 in. [203.2 mm], min %								
Bar Number 3 [10]		11	9	7	7	7	14	12
Bar Numbers 4, 5 [13, 16]		12	9	7	7	7	14	12
Bar Number 6 [19]		12	9	7	7	7	14	12
Bar Numbers 7, 8 [22, 25]			8	7	7	7	12	12
Bar Numbers 9, 10, 11 [29, 32, 36]			7	6	6	6	12	12
Bar Numbers 14, 18 [43, 57]			7	6	6	6	10	10

*1 Certifications which do not indicated made in America are made from steel purchased outside the United States.

*2 Tensile Strength shall not be less than 1.25 times actual yield strength.

In addition to the above, material which is branded and certified as meeting the requirements of ASTM A615-16 and ASTM A706-16 Grade 60 or 80 meets the requirements of both specifications as permitted by Section 19.3.3 of A615 and 19.3.3 of A706.

Jeff Kramer
 Manager, Quality Assurance
 Cascade Steel Rolling Mills, Inc.