



January 4, 2012

CERTIFICATE OF COMPLIANCE

As indicated on the Mill Test Reports, I certify that all the manufacturing processes of Cascade Steel Rolling Mills, Inc. occurred in the United States of America. ^{*1}

Our reinforcing steel conforms to ASTM A615-09a, Grade 40, 60, 75 or 80 or ASTM A706-09a 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 A615-09a or ASTM A706-09a 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 A615M-09a or ASTM A706-09a as indicated on the mill test report.

CHEMICAL REQUIREMENTS		ASTM A615-09a				ASTM A706-09a	
Element Max %	Grade	40	60	75	80	60	80
Carbon		n/a	n/a	n/a	n/a	0.30	0.30
Manganese		n/a	n/a	n/a	n/a	1.50	1.50
Phosphorus		0.06	0.06	0.06	0.06	0.035	0.035
Sulfur		n/a	n/a	n/a	n/a	0.045	0.045
Silicon		n/a	n/a	n/a	n/a	0.50	0.50
Carbon Equivalent Maximum		n/a	n/a	n/a	n/a	0.55	0.55
TENSILE REQUIREMENTS		ASTM A615-09a				ASTM A706-09a	
	Grade	40	60	75	80	60	80
Tensile Strength, min, psi [MPa]		60000 [420]	90000 [620]	100000 [690]	105000 [725]	80000 [550] ²	100000 [690] ²
Yield Strength, min, psi [MPa]		40000 [280]	60000 [420]	75000 [520]	80000 [550]	60000 [420]	80000 [550]
Yield Strength, max, [MPa]		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	14	12
Bar Numbers 4, 5 [13, 16]		12	9	7	7	14	12
Bar Number 6 [19]		12	9	7	7	14	12
Bar Numbers 7, 8 [22, 25]			8	7	7	12	12
Bar Numbers 9, 10, 11 [29, 32, 36]			7	6	6	12	12
Bar Numbers 14, 18 [43, 57]			7	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.

Thomas E. Murphy
 Customer Technical Services Manager
 Cascade Steel Rolling Mills, Inc.