



Carondelet Division

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Material Test Report

ENERGY INDUSTRIES OF OHIO

Purchase Order Number PPPL-FP-LTS-2
Pattern Number MCWF-C1
CAF Metal Designation CF8MNMnMod
Material Spec CF8MNMnMOD

Cert Number S73140-1
Pour Date 12/19/2004

Weighted average of 3 heats - 27728(32.4%), 27730(25.1%), 27731(42.5%) Total Weight 28779 lbs.

Revised 9/15/05

Element	Min	Actual	Max
C	0.04	0.06	0.07
MN	2.3	2.7	2.8
SI	0.0	0.5	0.7
CR	18.0	18.1	18.5
NI	13.0	13.1	13.5
MO	2.1	2.2	2.5
P*	0.0	0.018	0.035
S*	0.0	0.014	0.025
N	0.24	0.27	0.28

*P & S taken from cast on bar and analyzed by wet chemistries, ASTM E1019-03 for sulfur and Colormetric for phosphorous.

PRODUCT ANALYSIS

Results of spectrometer analysis of cast on test bar after spectrometer preventive maintenance performed.

Element

C ***
MN 1.9
SI 0.7
CR 18.3
NI 13.2
MO 2.4
P 0.024
S 0.013
N ***

***Not analyzed on spectrograph.

Respectfully Submitted,
Charles A. Ruud
Quality Assurance Manager

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