VAPOR TIGHTNESS TEST REPORT

Note: Test Results are Valid for (1) One Year from Date of Test!

Vessel Name:	E2MS 314	Test Date:	8/7/2019
Testing Location:	Arcosa Marine Products, Inc. - Madisonville, LA	Maximum Load Rate: (BPH)	5000
Tanks Tested:	All Cargo Tanks	Pressure Indicator	1.5

TEST RESULTS

Test Duration: 30 Minutes

Beginning Pressure	28	Inches H20
Ending Pressure	28	Inches H20
Total Pressure Loss	0	Inches H20
Allowable Pressure Loss	**2.2585**	Inches H20

Barge is Vapor Tight if "Total Pressure Loss" is LESS than "Allowable Pressure Loss"

(P1)	- Beginning Pressure	(P2)	- Ending Pressure
(Delta P)	- Total Pressure Loss	(Delta PM)	- Allowable Pressure Loss
(TP)	- 14.7 plus Barge Test Pressure in PSI	(L)	- Maximum Load Rate in BPH
(V)	- Volume of Tank (s)	(Delta T)	= Test Duration
0.861	- PIA @ (P1)		

$$0.861 \times \frac{16.2}{(TP)} \times \frac{5000}{(L)} \Big/ \frac{30880}{(V)} = \frac{2.2585}{(\text{Delta PM})}$$

This vessel has been tested in accordance with Section 61.304F and has been found to be vapor tight.

8/7/2019	8/7/2019
Production signature/date	Quality signature/date
R Whitney Davis	Frank Strong
Print name	Print name

PIPING TEST REPORT

Customer / Contract ~~38223~~ E² / 38223

Vessel Name E2M5314

Hull Number 2227-1

Official Number 1292164

KEEL Date / COI Year 4/29/2019 / 2019

TESTING INFO

System	Method of Test	PSI or OK	Date	Witness By
Cargo Pipe	HYDRO	200	7/17/19	
Pump Well	AIR	15	7/17/19	
Fuel Oil Piping	AIR	~~OK~~ 100	7/17/19	
Hot Oil Piping	N/A	N/A	N/A	N/A
Steam Piping	N/A	N/A	N/A	N/A
Air Piping	AIR	~~OK~~ 100	7/17/19	
Stripping Piping	AIR	OK	7/17/19	
Hydraulic Piping	N/A	N/A	N/A	N/A
Cargo Piping Relief Valve	AIR	OK	7/17/19	
Vapor Piping Relief Valve	AIR	1.5	8/7/19	
Steam Piping Relef Valve	N/A	N/A	N/A	N/A
Air Piping Relief Valve	AIR	OK	7/31/19	
Fuel Tank	HYDRO	OK	5/21/19	
Slop Tank	HYDRO	OK	5/21/19	
Cargo Pressure Gauge	AIR	OK	8/7/19	
Vapor Pressure Gauge	AIR	OK	8/7/19	
Air Pressure Gauge	N/A	N/A	N/A	N/A
Hydraulic Pressure Gauge	N/A	N/A	N/A	N/A
Emergency Shutdown	MANUAL	OK	8/2/19	
Pump Operational Test	DISCHARGE	OK	8/2/19	
Heater Operational Test	N/A	N/A	N/A	N/A
Stripping Operational Test	MANUAL	OK	7/30/19	
Hydraulic Operational Test	N/A	N/A	N/A	N/A

If a system is not applicable, leave that line blank

	Initial	Print	Signature
Production	RWD	R. WHITNEY DAVIS	
Quality	FAS	FRANK STRONG	

Cargo piping and test report Reference 33cfr 156.170.