Subject: Cleveland Process Audit

Date: May 1, 2015

Completed By: Steve Busicnki

On May 1, 2015, work order CLV 55696 was ran on the CR2 for Asco. A total of 14 bundles of 48 X 120 were produced. Tag AR65749 was verified prior to loading and use of the coil. When production began, a piece from the first bundle was checked for length, width, square, flatness and a micrometer was used to check the gauge. The sample was then stood on its side in order to check for coil set. Pieces from the 4^{th}, 7^{th}, 10^{th}, and 13^{th} bundles were checked for length, width, square, flatness, stood on their sides to check for coil set, and the gauge was checked by using the gamma gauger. Measurements were recorded on the Quality Checklist.

Thickness readings were taken from the gauger for this order. Based on the gauge report, 99.8% of the material was within specification with an average thickness of 0.0968. This average is within the customer's specification of 0.0940" – 0.1020".

Part Spec/PO Audit Form

Cust #	1812	Customer	Asco			Grp/Sz/Grd/Wdth	AZS / 0.0940 / CSB125 / 48.0			
Equip/Plant	PWC CR2	Work Order #	CLV 55696	Date	5/1/2015	Part No.	900290			
Work Order Information		Material to be Used				Actual				
		Tag #1	AR65749	Tag #2		Gauge #1	.096,.097,.096 (All)	Gauge #2		
		PO#	21122-001	PO#		% Gauge In Spec	99.80%	% Gauge In Spec		
Gauge Range	0.0940 - 0.1020	Gauge Min	.0930 Min	Gauge Min		Low/High Gauge	0.0937 / 0.0983	Low/High Gauge		
Width Range	48.0000 - 48.7500	Width	48.0000"	Width		Average	0.0968	Average		
Length Range	120.0000 - 120.2500					Width	48.062(2),48.093(4)	Width		
Rockwell		Rockwell		Rockwell		Length	120.093(5),120.062	Length		
Tensile						Rockwell		Rockwell		
Yield		A463 Aluminized								
% Elongation		Coil CS Type B								
Chem Rqmts		T125								
Other Rqmts		.0930 Min X								
Wave 0 - .12		48.0000"				Other				
Flatness 0 - .25		1 pc 39,396 lbs								
Summary										
Actions										
Final Status										

Quality Checklist

Date: 5-1-15 Customer: ASCO Work Order # 55696 Machine # 2

Master Tag # AC 65749 Tag Weight: 39,396 Type: A2C -125 Ordered RB: [illegible]

	Gauge Tolerance			Width Tol:	Length Tol:	Square Tol:	Flatness Tol:		
	.094		.102	± .25 0	± .25 0	NA	.25		
Skid Tag#	Edge	Crown	Edge	48 Width	120 Length	Square	Flatness	Inspected By	Date
36906	096	097	096	48.062	120.093	OUT	<.120	[illegible]	5-1
Last piece of 1st bundle	096	097	096	48.062	120.093	062	<.120	[illegible]	5-1

Skid Tag#	Edge	Crown	Edge	Width	Length	Square	Flatness	Inspected By	Date
36909	096	097	096	48.093	120.093	12	<.120	[illegible]	5-1
36912	096	097	096	48.093	120.093	-071	<.120	[illegible]	5-1
37575	096	097	096	48.093	120.093	021	<.120	[illegible]	5-1

Skid Tag#	Edge	Crown	Edge	Width	Length	Square	Flatness	Inspected By	Date
37578	096	097	096	48.093	120.087	081	<.120	[illegible]	5-1
Last piece of last bundle									

AGT400 Coil Summary Report

Jemison Metals -- 75 Inch Red Bud CTL Line

Work Order: 55696 Coil Number: AR65749

Customer Name: ASCO Heat Number: M S55102 Vendor: ARCELOR

Product: TI-25 Aluminized May-1-15 7:15 AM to 8:24 AM (clock 69.3 min/ run 22.4 min) Shift: 1

Average Thickness and Tolerance Data

Target	0.0980 in	Average*	0.0968 in	Average - Target	-0.0012 in (-1.22 %)
				Standard Deviation*	0.0007 in (0.69%)
Length	2494 ft			Above High Limit 0.1020 in	0 ft (0.0%)
Width	48.125 in			In Tolerance	2480 ft (99.4%)
Weight	39583 lbs			Below Low Limit 0.0940 in	14 ft (0.2%)

Max Thickness 0.0983 in at 263 ft Min Thickness 0.0937 in at 43 ft

Head Scrap 20 ft Tail Scrap 12 ft

Statistical Process Control Data

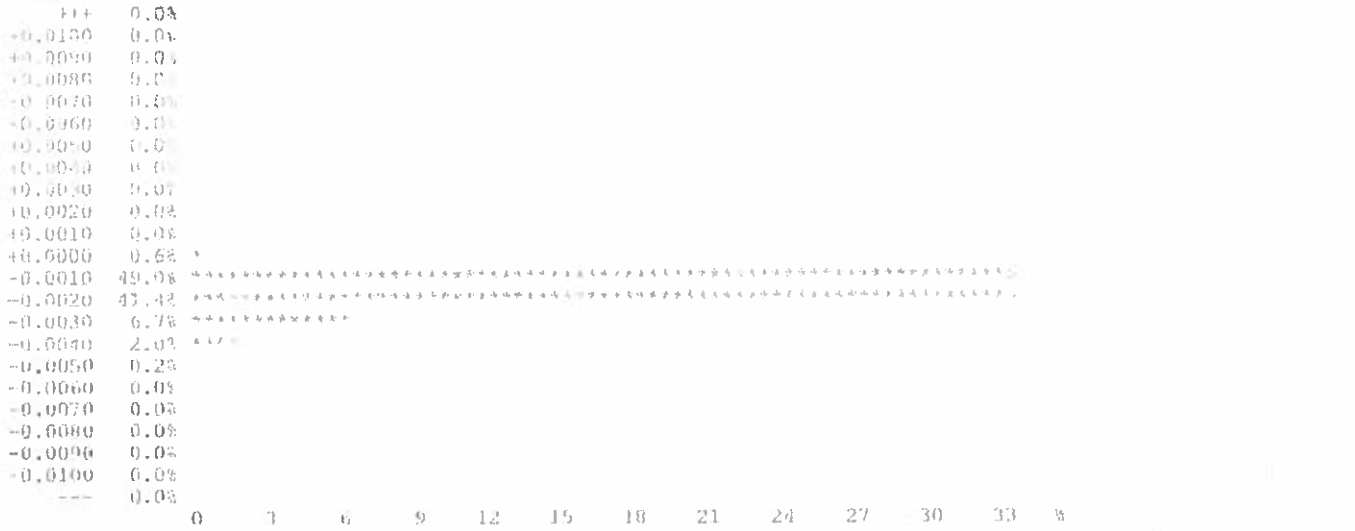
Upper Control Limit	0.0988 in	Upper Tolerance Limit	0.1020 in
X Double Bar	0.0968 in	R Bar	0.0020 in
Lower Control Limit	0.0948 in	Lower Tolerance Limit	0.0940 in

CR 50.3% (Capability Ratio %, 100/CP)

CP 1.990 (Process Capability, HiLim-LoLim/6*Sigma)

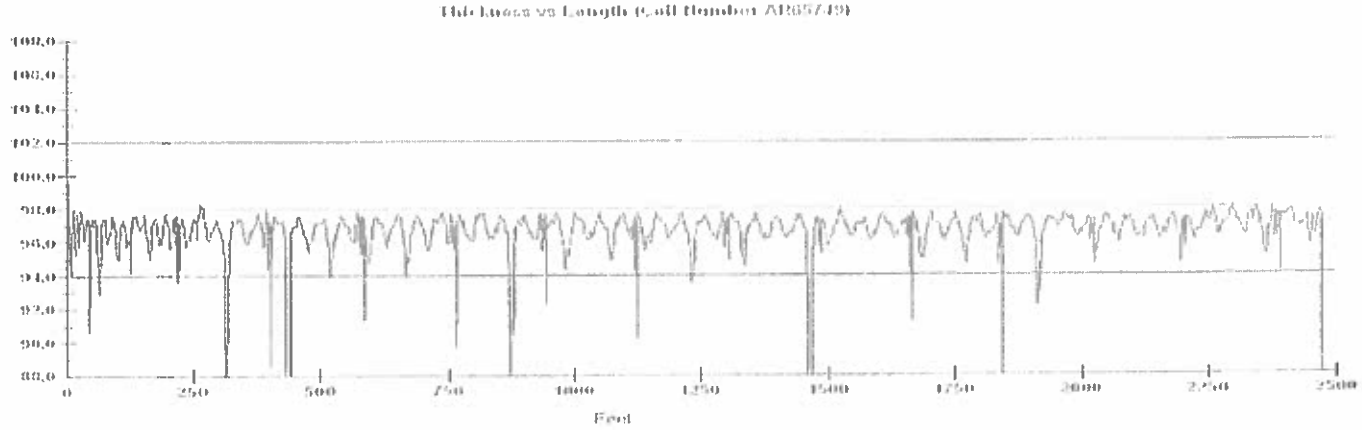
CPK 1.393 (Capability vs Limits) TMW Ratio 0.971(Low Limit/Avg)

Thickness Distribution Relative to the Target



91.1% is within ± 0.0020 in of the target 100.0% is within ± 0.0050 in of the target

100.0% is within ± 0.0100 in of the target 100.0% is within ± 0.0200 in of the target



Gauge readings provided by Advanced Ganging Technologies, L.L.C. Plain City, OH 43064 USA Tel.(614) 873-6691