Subject: Cleveland Process Audit

Date: April 10, 2015

Completed By: Steve Busicnki

On April 10, 2015, work order CLV 55522 was ran on the CLO for Shiloh. The master coil was trimmed to the appropriate width for the customer. Tag 65613 was verified prior to loading and use of the coil. The operator measured the master coil width with a tape measure and measured the gauge with a micrometer. The width was checked again with a tape measure after it was fed through the machine and trimmed. The entire master coil was run for this job and the gauge was checked again with a micrometer at the end of the coil. All measurements were recorded. Thickness readings were also taken from the gauger. Based on the gauge report, 100.0% of the material was within specification with an average thickness of 0.0677". I will speak with the plant manager to see if a tape measure should be used for material with this tolerance range. I will also speak to the plant manager about the format of recorded measurements.

Part Spec/PO Audit Form

Cust #	8505		Customer	Shiloh			Grp/Sz/Grd/Wdth	CRC / 0.0650 / EDDS / 50.0000		
Equip/Plant	CLO		Work Order #	CLV 55522	Date	4/10/2015	Part No.	5274228 - BLR		
Work Order Information			Material to be Used				Actual			
			Tag #1	65613	Tag #2		Gauge #1	.065 , .0655 , .065	Gauge #2	
			PO#	CLV 021360-001	PO#		% Gauge In Spec	100.00%	% Gauge In Spec	
Gauge Range	0.0650 - 0.0710		Gauge Min	0.0650	Gauge Min		Low/High Gauge	0.0664 / 0.0690	Low/High Gauge	
Width Range	50.0000 - 50.0300		Width	50.3750"	Width		Average	0.0677	Average	
Length Range	N/A 0.0000 - 0.0000						Width	50 1/30 , 50 1/30	Width	
Rockwell			Rockwell		Rockwell		Length	N/A Coil	Length	
Tensile							Rockwell		Rockwell	
Yield			A1008 Cold Rolled							
% Elongation			Coil Extra Deep				Gauge (End)	.065 , .066 , 0.65		
Chem Rqmts			Drawing							
Other Rqmts										
			1 pc 41510 lbs				Other			
Summary										
Actions										
Final Status										

Slit Size Inspection

Date: Apr. 10, 2015 Work Order: QLV 35532

Size of Cuts	Beginning Width	Beginning Mics	(Paxson Only) Middle Mics	End Width	End Mics
50.000	50 1/32	.065		50 1/32	.065
		.065.5			.064

DO ANY CUTS HAVE:

Rust/Stain
Burrs
Knife Marks

O.K.

Initials

JP

Slitting Order

Date: 4/00/15	Customer: Shiloh
Work Order #: CN55522	Date Run: Apr. 10, 2015

Incoming Inspection Checklist

Tag #	Gauge & Width	Type	Tag Wgt.	RB	Olsen	Actual Wgt.	Width	Mic
U5613	.065 x 50.375	CRC	41,510			41,510	50.1	.065 / .064

Cutting Instructions: 1 cut 50.000

Slit Tolerance: +.050 -0	Max O.D.: ST Thru	Max Skid Wgt:	I.D.: 24"
Gauge Range: .065 / .071		Salesman:	

Special Instructions:

1 Cuts with some defect but okay to ship

_____ Cut Size
_____ Cut Weight
N/A Defect
_____ Approved By

2 Cuts Rejected

_____ Cut Size
_____ Cut Weight
N/A Tag No. or No.'s
_____ Reason for Reject

3 Ok to move material for shipment or to Stock

[signature] Name
4/10/15 Date

AGT400 Coil Summary Report

Jemison Metals -- 60 Inch Loopco Slitter

Work Order: CLV 55522 Coil Number: 65613

Customer Name: SHILOH Heat Number: M 455332

Product: Cold-Rolled Steel Apr-10-15 11:06 AM to 11:16 AM (clock 10.7 min/ run 10.2 min) Shift: 1

Average Thickness and Tolerance Data

Target	0.0680 in	Average^	0.0677 in	Average - Target	-0.0003 in (-0.49%)
				Standard Deviation^	0.0005 in (0.78%)

Length	3269 ft	Above High Limit	0.0710 in	0 ft	(0.0%)
Width	50.500 in	In Tolerance		3269 ft	(100.0%)
Weight	38067 lbs	Below Low Limit	0.0650 in	0 ft	(0.0%)

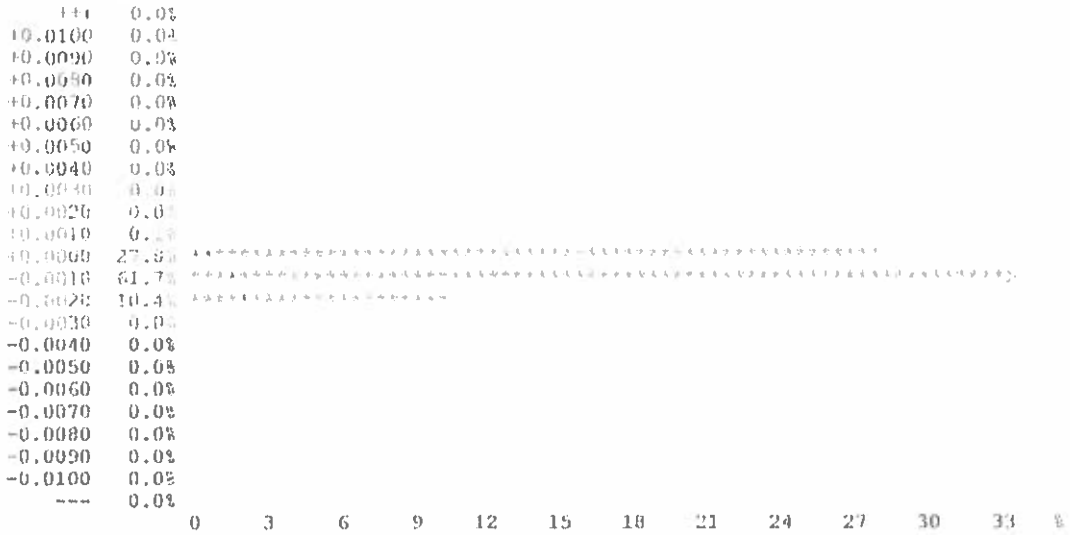
Max Thickness	0.0690 in at	3145 ft	Min Thickness	0.0664 in at	3226 ft
Head Scrap	1 ft		Tail Scrap	12 ft	

Statistical Process Control Data

Upper Control Limit	0.0693 in	Upper Tolerance Limit	0.0710 in
X Double Bar	0.0677 in	R Bar	0.0016 in
Lower Control Limit	0.0661 in	Lower Tolerance Limit	0.0650 in

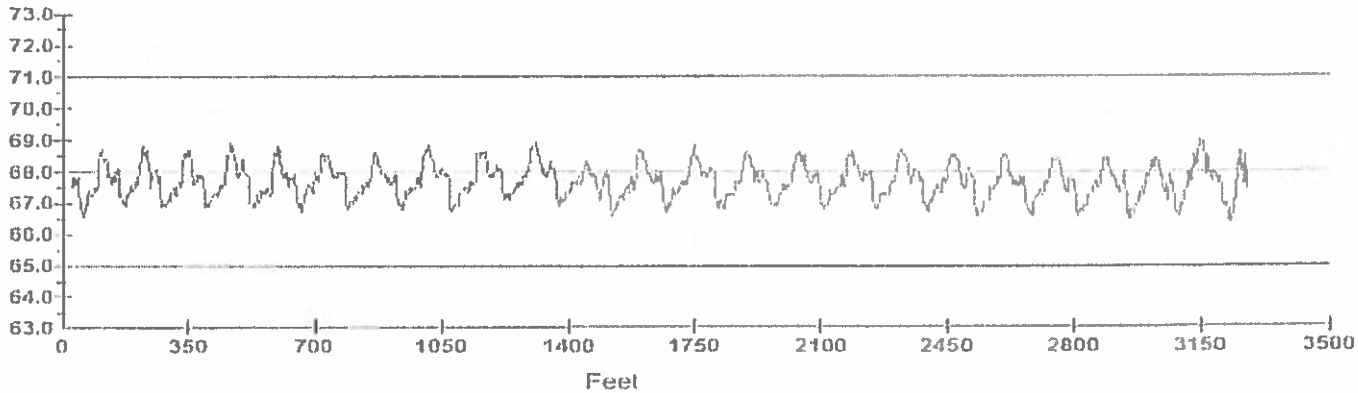
CR 53.0% (Capability Ratio %, 100/CP)
CP 1.887 (Process Capability, HiLim-LoLim/6*Sigma)
CPK 1.679 (Capability vs Limits) TMW Ratio 0.961 (Low Limit/Avg)

Thickness Distribution Relative to the Target



100.0% 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

Thickness vs Length (Coil Number 65613)



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