

Subject: Cleveland Process Audit

Date: October 1, 2015

Completed By: Steve Busicnki

On October 1, 2015, work order CLV 57409 was ran on the CLO for Lakeside. Tag NI67495 was verified prior to loading and use of the coil. The operator stated that he checked the gauge at the beginning of the coil and they were recorded on the Slit Size Inspection sheet. Each cut was measured for width using calipers when initially fed through the arbors. The coils were split at the appropriate point. The material thickness was measured again at the split with a micrometer. The thickness was measured again at the end of the coil. 99.9% of the gauge was within the customer range, with 0.1% representing the edge drop off associated with the edge of the steel. Micrometer readings verified material to be within specification.

Part Spec/PO Audit Form

Cust #	6750	Customer	Lakeside			Grp/Sz/Grd/Wdth	GVC / 0.0220 / CB90CD / 17.2400		
Equip/Plant	PWC CLO	Work Order #	CLV 57409	Date	10/1/2015	Part No.	GG90CN024PCI		
Work Order Information		Material to be Used				Actual			
		Tag #1	NI67495	Tag #2		Gauge #1	.025 / .026	Gauge #2	
		PO#	22086-001	PO#		% Gauge In Spec	99.90%	% Gauge In Spec	
Gauge Range	0.0220 - 0.0260	Gauge Min	0.0220	Gauge Min		Low/High Gauge	0.0218 / 0.0256	Low/High Gauge	
Width Range	17.235 - 17.245	Width	52.2200"	Width		Average	0.0233	Average	
Length Range	Coil					Width	17.242 , 17.243	Width	
Rockwell		Rockwell		Rockwell		Length	Coil	Length	
Tensile						Rockwell		Rockwell	
Yield		A653 Galvanized							
% Elongation		Coil CS-B *90							
Chem Rqmts		CT Dry							
Other Rqmts		.0220 Min X							
		52.2200"				Other			
		1pcs 43,440lbs							
Summary									
Actions									
Final Status									

## Slit Size Inspection

Date: Dec. 1, 2015 Work Order: 04157409

[illegible]

DO ANY CUTS HAVE:

Rust/Stain

## Burrs

## Knife Marks

OK

Initials



# AGT400 Coil Summary Report

## Jemison Metals -- 60 Inch Loopco Slitter

Work Order: CLV 57409 Coil Number: NI67495

Customer Name: LAKESIDE Heat Number: M R04518

Product: G90 Galvanized Oct-1-15 8:48 AM to 9:47 AM (clock 58.2 min/ run 44.5 min) Shift: 1

### Average Thickness and Tolerance Data

Target 0.0240 in Average^ 0.0233 in Average - Target -0.0007 in (-2.83%)  
Standard Deviation^ 0.0007 in ( 2.71%)

Length 10832 ft Above High Limit 0.0260 in 0 ft ( 0.0%)  
Width 52.312 in In Tolerance 10826 ft ( 99.9%)  
Weight 45034 lbs Below Low Limit 0.0220 in 6 ft ( 0.1%)

Max Thickness 0.0256 in at 2 ft Min Thickness 0.0218 in at 5633 ft  
Head Scrap 1 ft Tail Scrap 9 ft

### Statistical Process Control Data

Upper Control Limit 0.0253 in Upper Tolerance Limit 0.0260 in  
X Double Bar 0.0233 in R Bar 0.0020 in  
Lower Control Limit 0.0214 in Lower Tolerance Limit 0.0220 in

CR 97.5% (Capability Ratio %, 100/CP)

CP 1.026 (Process Capability, HiLim-LoLim/6\*Sigma)

CPK 0.677 (Capability vs Limits) TMW Ratio 0.943 (Low Limit/Avg)

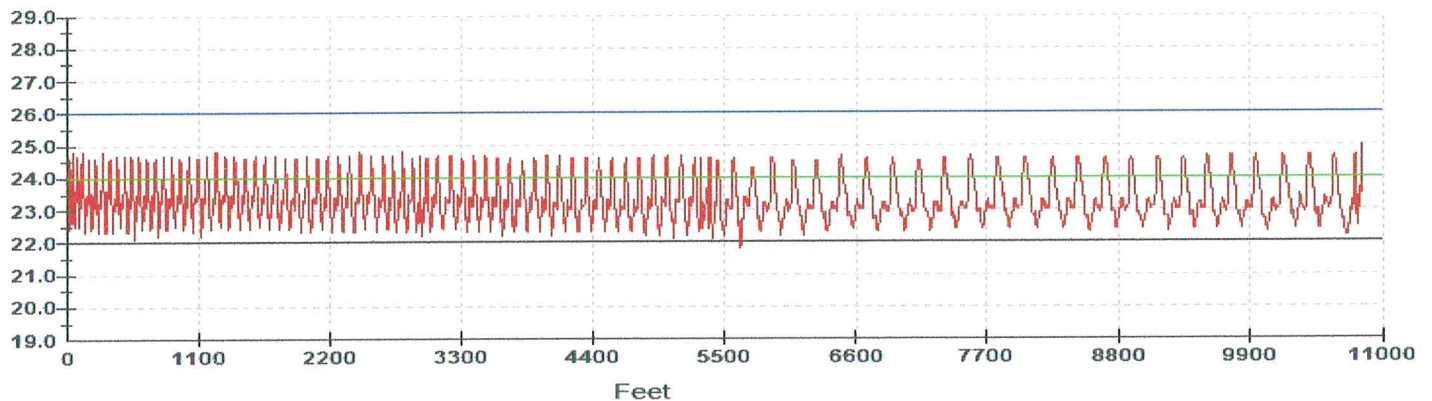
### Thickness Distribution Relative to the Target

+++ 0.0%  
+0.0050 0.0%  
+0.0045 0.0%  
+0.0040 0.0%  
+0.0035 0.0%  
+0.0030 0.0%  
+0.0025 0.0%  
+0.0020 0.0%  
+0.0015 0.0%  
+0.0010 0.0%  
+0.0005 9.9%  
+0.0000 10.3%  
-0.0005 11.4%  
-0.0010 37.0%  
-0.0015 25.8%  
-0.0020 5.5%  
-0.0025 0.1%  
-0.0030 0.0%  
-0.0035 0.0%  
-0.0040 0.0%  
-0.0045 0.0%  
-0.0050 0.0%  
--- 0.0%

0 3 6 9 12 15 18 21 24 27 30 33 %

68.6% is within  $\pm 0.0010$  in of the target 100.0% is within  $\pm 0.0025$  in of the target  
100.0% is within  $\pm 0.0050$  in of the target 100.0% is within  $\pm 0.0100$  in of the target

Thickness vs Length (Coil Number NI67495)



# Slitting Order

Date: 9/30/15	Customer: Lakeside
Work Order #: CLV57409	Date Run: Oct. 1, 2015

## Incoming Inspection Checklist

Tag #	Gauge & Width	Type	Tag Wgt.	RB	Olsen	Actual Wgt.	Width	Mic
N167495	.022 X 52.000	BVC	43,440			43,440	52 7/16	.025
								.026

Cutting Instructions: 3 cuts 17.240

Slit Tolerance: ± .005	Max O.D: Split in half	Max Skid Wgt:	I.D: 20'
Gauge Range: .022 / .026	Salesman: Jim B.		

Special Instructions:

1 Cuts with some defect but okay to ship

17.24" Cut Size  
 7100 Cut Weight  
 Oscillation Defect  
 Jim B. Approved By

2 Cuts Rejected

Cut Size  
 Cut Weight  
 Tag No. or No.'s  
 Reason for Reject

3 Ok to move material for shipment or to Stock

Name  
 Date 10/6/15