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**Public Utilities
Commission of Ohio**

FILE

Memo

To: Docketing Division
From: Jill Henry, Rail Specialist, Rail Division
Cc: PUCO Legal Department
Date: 9/15/11

Re: PUCO Case No. 10-204-RR-STP- In the matter of a request for CSX Transportation, Inc. to install active grade crossing warning devices in Butler County, Oxford Township at Taylor Rd. (DOT#154-092R) and Ringwood Rd. (DOT#154-089H).

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2011 SEP 15 AM 10:58
PUCO

On January 21, 2010, Commission Staff, The Ohio Rail Development Commission (ORDC), CSX Transportation, Inc. (CSX), and Oxford Township, Butler County, Ohio entered into an agreement whereby active grade crossing warning devices would be installed in Butler County, Oxford Township at Taylor Rd. (DOT#154-092R).

On February 12, 2010, The Ohio Rail Development Commission authorized funding for the project.

On March 3, 2010, the Commission issued a Finding and Order approving the project and requiring the submission of plans and estimates by June 3, 2010.

On June 2, 2010, CSX filed with the Rail Division plans and estimates for the project.

Due to some design concerns raised by PUCO Staff, considerable discussion between the Federal Railroad Administration, the PUCO, and CSX took place over six months. PUCO Staff and CSX came to a decision that resolved the Staff's design issues.

On December 9, 2010, the plans and estimates were authorized for the Taylor project by the PUCO and ORDC based a stipulation outlined in the construction authorization which stated: *Construction authorization should be granted for this project with the stipulation that the island length must be extended to include the de-rail controller.*

On April 7, 2011, an on site inspection was conducted by the PUCO. It was discovered that the actual island length was only 100' and was not extended to include the de-rail controller as stipulated in the construction authorization (see attached field inspection report).

Staff contacted CSX about the issues and CSX returned to the project site and made corrections to the project in May 2011. On August 30, 2011, an on site inspection was conducted by the PUCO. The crossing was determined to be in service and working to the requirements of the construction authorization (see attached field inspection report). Accordingly, the above case may be closed.

1 This is to certify that the images appearing are an accurate and complete reproduction of a case file document delivered in the regular course of business.
Technician AK Date Processed SEP 15 2011

Public Utilities Commission of Ohio
Transportation Department
Inspection & Investigation Division

Highway Grade Crossing Warning System Installation Detail 1

Railroad = CSX Transportation Line = Indianapolis
Location = Taylor Road AAR# = 154092R M.P. = 43.27
City = College Corner State = Ohio County = Butler
Construction Start Date = 1/28/2011

Visible Warning Devices Detail

NW Quad

# Flasher Mast	<u> </u>	# Gate Mast	<u>1</u>	# Cantilever	<u> </u>
# Crossbucks	<u>1</u>	Gate Arm Length	<u>14'</u>	Cantilever Length	<u> </u>
# 2-Way Lights	<u>1</u>	# 1-Way lights	<u> </u>	# Bells	<u>1</u>
2-Way Lights Size	<u>12"</u>	1-Way Lights Size	<u> </u>	# Multiple Track Signs	<u> </u>

SE Quad

# Flasher Mast	<u> </u>	# Gate Mast	<u>1</u>	# Cantilever	<u> </u>
# Crossbucks	<u> </u>	Gate Arm Length	<u>15'</u>	Cantilever Length	<u> </u>
# 2-Way Lights	<u>1</u>	# 1-Way lights	<u> </u>	# Bells	<u> </u>
2-Way Lights Size	<u>12"</u>	1-Way Lights Size	<u> </u>	# Multiple Track Signs	<u> </u>

Quad

# Flasher Mast	<u> </u>	# Gate Mast	<u> </u>	# Cantilever	<u> </u>
# Crossbucks	<u> </u>	Gate Arm Length	<u> </u>	Cantilever Length	<u> </u>
# 2-Way Lights	<u> </u>	# 1-Way lights	<u> </u>	# Bells	<u> </u>
2-Way Lights Size	<u> </u>	1-Way Lights Size	<u> </u>	# Multiple Track Signs	<u> </u>

Quad

# Flasher Mast	<u> </u>	# Gate Mast	<u> </u>	# Cantilever	<u> </u>
# Crossbucks	<u> </u>	Gate Arm Length	<u> </u>	Cantilever Length	<u> </u>
# 2-Way Lights	<u> </u>	# 1-Way lights	<u> </u>	# Bells	<u> </u>
2-Way Lights Size	<u> </u>	1-Way Lights Size	<u> </u>	# Multiple Track Signs	<u> </u>

Public Utilities Commission of Ohio
Transportation Department
Inspection & Investigation Division

Highway Grade Crossing Warning System Installation Detail 2

Railroad = CSX Transportation Line = Indianapolis
Location = Taylor Road AAR# = 154092R M.P. = 43.27
City = College Corner State = Ohio County = Butler
Construction Start Date = 1/28/2011

Underground Cable & Conduit Detail

Footage of 19 Comp to Signal 1 110 Signal 2 150 Signal 3 _____ Signal 4 _____
Footage of 7c/#14 to: Signal 1 _____ Signal 2 _____ Signal 3 _____ Signal 4 _____
Footage of 2c/#6 to: Track 1 255 Track 2 _____ Track 3 _____ Track 4 _____
Footage of 7c/#14 to: Location 1 _____ Location 2 _____ Location 3 _____ Location 4 _____
Footage of 3c/#9 to: Power 1 180 Power 2 _____ Power 3 _____ Power 4 _____
4" Conduit under Road = 40 Under tracks = 20 Under Other = _____

Control Equipment Detail

of Instrument Cases or Bungalows = 1 # of Battery Boxes. _____
of GCP Units = 1 Manufacturer = Safetran Model # = 4000
of PMD Units = _____ Manufacturer = _____ Model # = _____
of "C" Inverters = _____ Manufacturer = _____ Model # = _____
GCP Frequency. Unit 1 211 Unit 2 _____ Unit 3 _____ Unit 4 _____
PMD Frequency. Unit 1 _____ Unit 2 _____ Unit 3 _____ Unit 4 _____
Approach Length. Track 1 3080' Track 2 _____ Track 3 _____ Track 4 _____
Island Length. Track 1 213' Track 2 _____ Track 3 _____ Track 4 _____
XB12 Amp Hour = 165 OB12 Amp Hour = 165 BGB12 Amp Hour = 165

Public Utilities Commission of Ohio
Transportation Department
Inspection & Investigation Division

Highway Grade Crossing Warning System Installation Cut Over Test

Railroad = CSX Transportation Line = Indianapolis
Location = Taylor Road AAR# = 154092R M.P. = 43.27
City = College Corner State = Ohio County = Butler
Cut Over Test Date = 2/9/2011

Attendance Info

PUCO 1 Shawn Zurfley Railroad 1 Darren Urfer
PUCO 2 Jill Henry Railroad 2 Carl Kreuzer
PUCO 3 Steve Horner Railroad 3 _____

Inspection & Tests Made

Locks? Yes Plans in case and correct? Yes
Insulation Resistance Test made? Yes Relay Test Made? NA
XB12 Volts = 13.6VDC OB12 Volts = 12VDC BGB12 Volts = 16.3VDC
Grounds Test made? Yes Case and Bases Tagged? Yes
Lamp Volts AC = 10VDC Lamp Volts DC = 10VDC
Lights Focused? Yes Flash Rate = 55 FPM @ Light
Gate Arm and lights proper? Yes Gate Arm Movement proper? Yes
Bells Operate? Yes Traffic Pre-emption operates properly? NA
MS / GCP Island Shunt with no time out? Yes AC/DC Island Shunted? _____
MS / GCP Approach Shunt with time out? Yes AC/DC Approach Shunted? _____
Tested under train moves this date? No Warning Time observed or set = 35 SEC

**Public Utilities Commission of Ohio
Transportation Department
Inspection & Investigation Division**

Highway Grade Crossing Warning System Installation Outline

Railroad = CSX Transportation Line = Indianapolis
Location = Taylor Road AAR# = 154092R M.P. = 43.27
City = College Corner State = Ohio County = Butler
Construction Start Date = 1/28/2011 Cut Over Test Date = 2/9/2011

Visible Warning Devices Outline

# Gate masts. <u>2</u>	# Cantilever Masts. <u>0</u>	# Flasher Masts. <u>0</u>
# 2 - Way light units. <u>2</u>	# 1 - Way Light units. <u>0</u>	
# Crossbucks. <u>1</u>	# Multiple Track Signs. <u>0</u>	# Bells. <u>1</u>

Underground Cable & Conduit Outline

<u>260</u> Ft. 5c/#6 Gate/Flasher Cable.	<u>0</u> Ft. 7c/#14 Control/Flasher Cable.
<u>255</u> Ft. 2c/#6 Track Cable.	<u>0</u> Ft. 7c/#14 Express Cable.
<u>180</u> Ft. 3c/#9 Power Cable.	
<u>60</u> Ft. 4" Conduit.	

Control Equipment Outline

# of Instrument Cases or Bungalows = <u>1</u>		# of Battery Boxes = <u>0</u>	
# of GCP Units = <u>1</u>	Manufacturer = <u>Safetran</u>	Model # = <u>4000</u>	
# of PMD Units = <u>0</u>	Manufacturer = <u>0</u>	Model # = <u>0</u>	
# of "C" Inverters = <u>0</u>	Manufacturer = <u>0</u>	Model # = <u>0</u>	
GCP Frequency.	Unit 1 <u>211</u>	Unit 2 <u>0</u>	Unit 3 <u>0</u> Unit 4 <u>0</u>
PMD Frequency.	Unit 1 <u>0</u>	Unit 2 <u>0</u>	Unit 3 <u>0</u> Unit 4 <u>0</u>
Approach Length.	Track 1 <u>3080'</u>	Track 2 <u>0</u>	Track 3 <u>0</u> Track 4 <u>0</u>
Island Length.	Track 1 <u>213'</u>	Track 2 <u>0</u>	Track 3 <u>0</u> Track 4 <u>0</u>
B12 Amp Hour = <u>165</u>	GB12 Amp Hour = <u>165</u>	MSB12 Amp Hour = <u>165</u>	

Notes: The actual island length in the field is 100'. The project plans stipulated a 120' island. The PUCO Construction authorization stipulated that the island length should be lengthened to include the de-rail controller. Field testing on April 7, 2011, revealed that the island length as constructed does not meet the construction authorization requirements from the PUCO. The crossing does not address the de-rail situation or prevent short warning or activation failures from occurring.

Name Shawn A. Zurfley

Title PUCO/FRA Inspector
Date April 11, 2011

**PUBLIC UTILITIES COMMISSION OF OHIO
TRANSPORTATION DEPARTMENT
RAIL DIVISION**

Date of Inspection: August 30, 2011

Case # 10-204-RR-STP – Final audit and inspection, Taylor Road, Butler County, CSX Transportation (CSX).

DOT #: 154-092R

FINDINGS

I conducted an inspection of the crossing on August 30, 2011. The inspection was performed to confirm the railroad had installed the island circuit at the switch derail as agreed upon by CSX Transportation and the Public Utilities Commission of Ohio (PUCO).

On the above noted day, I inspected the highway rail grade crossing train detection circuits that are affected by the derail and shunt box located on the west end of the crossing. During my inspection I had the CSX signal employee verify a .06 ohm shunt would drop the island circuit with the derail in the off position. I also had the signal employee verify a .06 ohm shunt would drop the east bound approach circuit with the derail in the off position. Both tests were completed and the crossing worked as designed and intended.

SUMMARY AND CONCLUSIONS

My inspection confirmed the highway rail grade crossing circuits affected by the derail and shunt box on the west end of the crossing worked as designed and intended.

RECOMMENDATIONS

In view of the foregoing findings and conclusion, I feel the railroad has met its obligation to redesign the island circuit as CSX transportation and the PUCO had agreed upon.

Shawn Zurfley
PUCO/FRA Rail Inspector
Date: September 7, 2011