NIRPC RAIL CROSSING TASK FORCE

MAY-JULY 2019
RAIL CROSSING DATA ANALYSIS
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EME Rail Solutions LLC
Blocked Crossing Classification

The cause of blocked railroad crossing incidents are classified into three categories:

• OP Operating Practices and Procedures
• IE Infrastructure/Engineering Characteristics
• MO Mechanical Failure/Other
Operating Practices and Procedures  OP

Definition

Blocked crossing events caused by the length of train (service design), dispatching decisions (locations where trains can be held waiting to advance) and other operating protocols regarding the operation of trains through a specific area.

Example: NS train is stopped at the signal at CP Hohman in Downtown Hammond waiting for the IHB train traffic to clear. Due to train length, multiple road crossings are blocked.
Blocked crossing events caused by a train moving through a section of track such as crossover, connection track, non-signaled track, yard that has a speed restriction (lower authorized speed limit) due to the physical/engineering characteristics of that section of railroad.
Mechanical Failure/Other  MO

Description

Blocked crossing events caused by a mechanical failure with a train that requires the train crew to stop and inspect the train and make repairs if needed.
<table>
<thead>
<tr>
<th>City or Town</th>
<th>Observations</th>
<th>No of Blocked Xings events &lt;10 minutes</th>
<th>Railroad(s) Responsible for Blocked Xing</th>
<th>Cause OP</th>
<th>Cause IE</th>
<th>Cause MO</th>
</tr>
</thead>
<tbody>
<tr>
<td>East Chicago</td>
<td>20</td>
<td>11</td>
<td>IHB (11)</td>
<td>11</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Hammond</td>
<td>43</td>
<td>13</td>
<td>IHB(3) NS(11)</td>
<td>12</td>
<td>2</td>
<td>0</td>
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<tr>
<td>Ogden Dunes</td>
<td>13</td>
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<td>n/a</td>
<td>n/a</td>
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<tr>
<td>Hobart</td>
<td>15</td>
<td>2</td>
<td>NS (2)</td>
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<tr>
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<td>n/a</td>
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<tr>
<td>Dunes Acres</td>
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<td>0</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
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<tr>
<td><strong>Totals</strong></td>
<td><strong>96</strong></td>
<td><strong>26</strong></td>
<td><strong>26</strong></td>
<td><strong>21</strong></td>
<td><strong>2</strong></td>
<td><strong>0</strong></td>
</tr>
</tbody>
</table>
Crossing Data Analysis Cont’d

May-July 2019

Total of 96 observations between May 1, 2019 and July 31, 2019

The 96 observations captured 995 minutes of crossing activations

26 of the 96 observations or 27 percent were classified as a blocked crossing event (down 11 percent from the previous period of March and April)

The average crossing activation time between May 1 and July 31, 2019 was 10.36 minutes. This shows a slight decrease of 0.31 minutes in the length of time the crossings are occupied from the previous reporting period of March and April 2019 (avg time was 10.67 minutes)
The longest crossing activation of 379 minutes occurred at Michigan Avenue/Indiana Harbor Drive at the Indiana Harbor Belt Rail Crossing in East Chicago on 06/18/2019.

One of the shortest crossing activations of 1 minute was at Commercial Avenue in Lowell at the CSX Rail Crossing.

The cause was determined in all 26 observations that were classified as an “blocked crossing incident.”
Crossing Data Analysis Cont’d

May-July 2019

Blocked crossings between 06:30 and 09:30 (Morning Rush Hour) - 2
Blocked crossings between 15:00 hours (3pm) and 18:30 hours (6:30pm) Evening Rush Hour - 4
Blocked Crossings during Off Peak Hours - 20
## Crossing Data Analysis Trends

January-July 2019

<table>
<thead>
<tr>
<th>MONTH(S)</th>
<th>AVG. XING ACTIVATION (IN MINUTES)</th>
<th>% OF XINGS BLOCKED</th>
</tr>
</thead>
<tbody>
<tr>
<td>JANUARY/FEBRUARY</td>
<td>9.85</td>
<td>33</td>
</tr>
<tr>
<td>MARCH</td>
<td>15.88</td>
<td>50</td>
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<tr>
<td>APRIL</td>
<td>10.67</td>
<td>38</td>
</tr>
<tr>
<td>MAY</td>
<td>7.97</td>
<td>29.3</td>
</tr>
<tr>
<td>JUNE</td>
<td>19.7</td>
<td>35.29</td>
</tr>
<tr>
<td>JULY</td>
<td>5.95</td>
<td>9.52</td>
</tr>
<tr>
<td>AVERAGE Jan-July</td>
<td>11.67</td>
<td>32.51</td>
</tr>
</tbody>
</table>
Preliminary Findings

Indiana Harbor Drive/Michigan Avenue
Indiana Harbor Belt
Canadian National
City of East Chicago
Crossing Data Analysis Indiana Harbor Drive/Michigan Avenue

March 2019

Total of 534 observations between March 15, 2019 and March 29, 2019*

The 534 observations captured 7,185 minutes of crossing activations

235 of the 534 observations or 44 percent were classified as a blocked crossing event

Indiana Harbor Drive/Michigan Ave averaged 15.66 blocked crossing events per day

Between the IHB Rail Crossing and CN Rail Crossing at Indiana Harbor Drive(Michigan Avenue) there was an average of 35.6 trains per day

*The Indiana Harbor Drive/Michigan Avenue data was collected from Vidimos Inc. Security Cameras and Jill Smith of Kemira.
Crossing Data Analysis Indiana Harbor Drive/Michigan Avenue

March 2019

The two crossings were activated an average of 477 minutes or just below 8 hours per day.

The longest crossing activation for a single day occurred on March 19, 2019. Between the IHB and CN, the crossing was blocked for 1,117 minutes/18 hours and 37 minutes.

The longest single activation occurred on March 28, 2019 when the IHB crossing was blocked for 7 hours and 36 minutes. From 05:16 hours until 12:52 this rail crossing was continuously blocked by a train at the Indiana Harbor Belt Rail Crossing.

*The Indiana Harbor Drive/Michigan Avenue data was collected from Vidimos Inc. Security Cameras and Jill Smith of Kemira.*
Crossing Data Analysis Indiana Harbor Drive/Michigan Avenue

Summary of March and April Totals

Information provided by Scott Vidimos of Vidimos Inc. located at 3858 Indiana Harbor Drive East Chicago, IN 46312

The averages for March train totals, crossing activations and blocked crossings events stayed unchanged for the month of April. The sample size (over 1,700 observations) shows with a high degree of certainty that the data depicts an accurate picture of daily events at the crossing.

*The Indiana Harbor Drive/Michigan Avenue data was collected from Vidimos Inc. Security Cameras and Jill Smith of Kemira.
Vidimos Incorporated, Kemira and Randall Metals Corporation are 3 East Chicago businesses located between the Indiana Harbor Belt Rail Crossing and the Canadian National Rail Crossing on Indiana Harbor Drive/Michigan Avenue.

All three businesses are directly impacted by the 35 daily trains and 15 blocked crossing events per day.

The crossings are occupied on average for 477 minutes per day or just under 8 hours per day.

*The Indiana Harbor Drive/Michigan Avenue data was collected from Vidimos Inc. Security Cameras and Jill Smith of Kemira.
Due to the Cline Avenue Bridge Reconstruction project, the only other road that allows access to these three facilities, Dock Street is currently closed. Throughout the day, there are trains occupying both crossings, which in turns isolates Vidimos Inc, Kemira and Randall Metals Corp, from the rest of East Chicago and the Emergency Services of the city such as Police, Fire and EMS.

If some type of Emergency takes place at any of these three facilities, how can they be assured that the services will be able gain access to the area?

*The Indiana Harbor Drive/Michigan Avenue data was collected from Vidimos Inc. Security Cameras and Jill Smith of Kemira.*
If Dock Street is going to remain closed for an extended period during the Cline Avenue Project, then some type of emergency plan should be developed by the railroad, City of East Chicago and emergency services for the businesses in that area.

If we can get information from INDOT or the City of East Chicago on how long Dock Street will remain closed, then a action plan can be created to mitigate the problem for emergency access to these businesses.

*The Indiana Harbor Drive/Michigan Avenue data was collected from Vidimos Inc. Security Cameras and Jill Smith of Kemira.*
SPECIAL THANKS TO

JILL SMITH OF KEMIRA
SCOTT VIDIMOS OF VIDIMOS INC.
Thank You.

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