

BEFORE THE OFFICE OF THE COMMISSIONER OF RAILROADS

STATE OF WISCONSIN

On the Commissioner's Own Motion for a Determination of the Adequacy of Warning Devices at the Grade Crossing of the Union Pacific Railroad Co. Tracks with Five Highways in the Towns of Adams, Strongs Prairie, and New Chester, Adams County

9040-RX-1210

FINDINGS OF FACT AND ORDER

On June 14 and October 28, 2005, the Commissioner of Railroads directed the staff of the Office of the Commissioner of Railroads (OCR) to investigate the adequacy of warning devices under §195.28, Stats., at five public at-grade crossings of the Union Pacific Railroad Co. (UP) tracks in the Towns of Adams, Strongs Prairie, and New Chester, Adams County. The crossings are:

Road	Town	Crossing No.
CTH 'E'	New Chester	179 251S / MP 209.9
11 th Avenue	Adams	179 256B / MP 203.85
CTH 'J'	Adams	179 262E / MP 199
CTH 'Z'	Strongs Prairie	179 264T / MP 196.3
20 th Avenue	Strongs Prairie	179 265A / MP 195.33

An OCR investigator inspected the crossings in September 2005. No hearing was held.

Findings of Fact

THE COMMISSIONER FINDS:

The UP operates 6 train movements per day over each crossing at a timetable speed of 40 mph. Each crossing consists of one mainline track.

The OCR is reviewing the safety of five crossings in the Adams County. In this order the Office of the Commissioner of Railroads is ordering the installation of automatic flashing lights with gates and constant warning time circuitry at the crossings of CTH 'E' in the Town of New Chester, CTH 'J' in the Town of Adams, and CTH 'Z' in the Town of Strongs Prairie with the Union Pacific Railroad Co. tracks. The Commissioner has determined that the 11th Avenue and 20th Avenue crossings should be investigated for potential closure. Closure of any crossing requires a public hearing. The investigation and hearing with respect to these potential closures will be conducted under a separate docket. A separate notice will be issued by the OCR at a later date.

CTH 'E' New Chester 179 251S / MP 209.9

CTH 'E' is about 23' wide in the vicinity of the crossing and intersects the railroad tracks at an angle of about 40° (right-hand forward). The roadway approaches to the crossing are nearly level. CTH 'E' carried an average daily traffic (ADT) of 920 at a legal speed limit of 35 mph.

The exposure factor at this crossing is about 5500. The exposure factor equals the product of the number of trains per day and the number of highway vehicles per day, which yields a numerical value for the potential conflicts each day at the crossing.

One train-vehicle accident has occurred at this crossing since 1973. The accident occurred in 1978.

Accidents that do occur here will likely be quite serious if a through train is involved due to their 40 mph speed. Train speed is strongly correlated with fatalities in train/vehicle accidents. More specifically, crossings with train speeds of 40 mph and over have a disproportionate number of fatalities. According to Federal Railroad Administration (FRA) statistics, nationally, in 1994 71% of fatalities occurred at crossings with train speeds of 40 mph+, even though only 26% of all crossings had train speeds of 40 mph+.

The crossing is presently protected with 8" incandescent automatic flashing lights and advance warning signs. The existing warning devices are inadequate. The existing warning devices will be adequate until such time as the new warning devices are installed. In order to adequately protect public safety 12" LED automatic flashing lights with gates and constant warning time circuitry are needed.

CTH 'J' Adams 179 262E / MP 199

CTH 'J' is about 23' wide in the vicinity of the crossing and intersects the railroad tracks at an angle of about 35° (right-hand forward). The roadway approaches to the crossing are nearly level. CTH 'J' carried an ADT of 1100 at a legal speed limit of 55 mph.

The exposure factor at this crossing is about 6600.

No train-vehicle accidents have occurred at this crossing since 1973.

Accidents that do occur here will likely be quite serious if a through train is involved due to their 40 mph speed.

The crossing is presently protected with 8" incandescent automatic flashing lights and advance warning signs. The existing warning devices are inadequate. The existing warning devices will be adequate until such time as the new warning devices are installed. In order to adequately protect public safety 12" LED automatic flashing lights with gates and constant warning time circuitry are needed.

CTH 'Z' Strongs Prairie 179 264T / MP 196.3

CTH 'Z' is 22' wide in the vicinity of the crossing and intersects the railroad tracks at an angle of 80°. The roadway approaches to the crossing are slightly ascending. CTH 'Z' carried an ADT of 1300 at a legal speed limit of 25 mph.

The exposure factor at this crossing is about 7800.

Two train-vehicle accidents have occurred at this crossing since 1973. The accidents occurred in 1983 and 1989.

Accidents that do occur here will likely be quite serious if a through train is involved due to their 40 mph speed.

The crossing is presently protected with 8" incandescent automatic flashing lights and advance warning signs. The existing warning devices are inadequate. The existing warning devices will be adequate until such time as the new warning devices are installed. In order to adequately protect public safety 12" LED automatic flashing lights with gates and constant warning time circuitry are needed.

Constant warning time circuitry adjusts for train speed and causes the crossing signals to always operate for the same amount of time before the train reaches the crossing, regardless of train speed. A motion detector simply detects the train operation, but does not adjust for train speed so that the amount of warning time varies based on train speed.

Light emitting diodes (LED) lamps replace incandescent bulbs. LEDs have higher conspicuity, a wider cone of vision, and longer life than incandescent lights. LEDs are especially useful on east-west roadways where the rising and setting sun may make the signals difficult to see.

Source of funding: The signal materials and installation shall be paid from federal and state OCR safety funds and the Union Pacific Railroad Co. Because this order is a part of a corridor review the UP has agreed to pay 20% of the cost for the signal materials and installation costs. Public funds will be used for the remaining 80%. The public contribution shall be capped at \$120,000. Notwithstanding this cap on the public contributions, the UP may recover its proportionate share of its demonstrated actual reasonable and necessary costs.

Conclusion on the Issue

THE COMMISSIONER CONCLUDES:

That in order to adequately protect and promote public safety, it is necessary to install and maintain 12" LED automatic flashing lights with gates and constant warning time circuitry at the crossing of the tracks of the Union Pacific Railroad Co. with CTH 'E', CTH 'J', and CTH 'Z' in the Towns of New Chester, Adams and Strongs Prairie, Adams County.

Conclusion of Law

THE COMMISSIONER CONCLUDES:

That the jurisdiction of the Office of the Commissioner of Railroads under §195.28, Stats., extends to this matter. Accordingly, the Office enters an order consistent with the findings of fact.

Order

THE COMMISSIONER ORDERS:

1. That the **Union Pacific Railroad Co.** shall install and maintain 12" LED automatic flashing lights with gates, and constant warning time circuitry with appropriate appurtenances in accordance with such plans as are filed with and approved by the Office of the Commissioner of Railroads at the crossing of its tracks with **CTH 'E'** at-grade in the Town of New Chester, Adams County by **December 31, 2007** (Crossing No. 179 251 S / MP 209.88).

2. That the **Union Pacific Railroad Co.** shall install and maintain 12" LED automatic flashing lights with gates, and constant warning time circuitry with appropriate appurtenances in accordance with such plans as are filed with and approved by the Office of the Commissioner of Railroads at the crossing of its tracks with **CTH 'J'** at-grade in the Town of Adams, Adams County by **December 31, 2007** (Crossing No. 179 262E / MP 198.86).

3. That the **Union Pacific Railroad Co.** shall install and maintain 12" LED automatic flashing lights with gates, and constant warning time circuitry with appropriate appurtenances in accordance with such plans as are filed with and approved by the Office of the Commissioner of Railroads at the crossing of its tracks with **CTH 'Z'** at-grade in the Town of Strongs Prairie, Adams County by **December 31, 2007** (Crossing No. 179 264T / MP 196.22).

4. That the **Union Pacific Railroad Co.** shall submit to the Office of the Commissioner of Railroads signal and circuit plans with the cost estimate of its proposed installation and upon completion of the signal project, a detailed statement of the actual cost to the Office and to the Wisconsin Department of Transportation.

5. That the signal installation work herein ordered shall not begin until the district office of the Wisconsin Department of Transportation informs the railroad that they may start such work and such start notice will not be issued until appropriate federal aid or other funding arrangements have been assured. The cost of the new project initiated before the start notice will not be reimbursed with public funds and shall be the responsibility of the railroad.

6. That to the extent feasible the **Union Pacific Railroad Co.** shall re-use the existing signal equipment.

7. That the **State of Wisconsin** shall pay 80% of the cost (up to a **maximum contribution of \$120,000 per crossing**) and the **Union Pacific Railroad Co.** shall bear 20% of the cost of the crossing signal materials and labor. In addition, the **Union Pacific Railroad Co.** shall pay any cost assessed to the railroad pursuant to §195.60, Stats., for the investigation of this matter by the Office. The railroad shall not pass on those assessment costs either directly or indirectly. The maximum funding provided by the **State of Wisconsin** may be adjusted to reflect the actual reasonable and necessary cost of the materials and installation. The actual reasonable and necessary costs shall be determined by the **Office of the Commissioner of Railroads** after hearing, if necessary.

8. That if the petitioner, railroad or any interested party objects to this order and requests a hearing within 20 days of the date of this order in writing, the Office will hold a public hearing.

9. That jurisdiction is retained.

Dated at Madison, Wisconsin, (April 25, 2006).

By the Office of the Commissioner of Railroads.

Rodney W. Kreunen
Commissioner of Railroads

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