

BEFORE THE OFFICE OF THE COMMISSIONER OF RAILROADS

STATE OF WISCONSIN

Petition of the Wisconsin Department of Transportation for a Determination of the Adequacy of Warning Devices at the Grade Crossing of the Dakota Minnesota & Eastern Railroad Tracks with Inman Parkway in the Town of Beloit, Rock County

9105-RX-100

FINDINGS OF FACT AND ORDER

On February 19, 2010, the Wisconsin Department of Transportation (DOT) filed a petition with the Office of the Commissioner of Railroads (OCR) for a determination of the adequacy of warning devices under §195.28, Stats., at the grade crossing of the Dakota Minnesota & Eastern Railroad (DM&E) tracks with Inman Parkway in the Town of Beloit, Rock County (Crossing No. 388 162B).

An OCR investigator inspected the crossing in 2010. No hearing was held.

Findings of Fact

THE COMMISSIONER FINDS:

The Wisconsin Department of Transportation and the Town of Beloit are planning to recondition the roadway between USH 51 and CTH G. Inman Parkway is 34' wide in the vicinity of the crossing and intersects the railroad tracks at an angle of 80° RHF. The roadway approaches to the crossing are level. Inman Parkway carries an average daily traffic (ADT) of 4100 according to DOT records at a posted speed limit of 35 mph.

The Dakota Minnesota & Eastern Railroad operates two train movements per day over the crossing at a timetable speed of 10 mph. Train speed may increase to 25 mph after a tie replacement program is completed in 2010. The crossing consists of one mainline track.

A driver traveling at 35 mph needs a distance of 270' to stop safely. The crossing warning devices are visible from more than 270' in each direction. The approach sight distance is adequate.

Assuming a train speed of 25 mph, a driver traveling at 35 mph needs to see a train when it is 240' from the crossing from a point 270' down the highway. The sight distance available in each quadrant from the safe stopping distance is as follows: 140' in the northwest quadrant, 220' in the northeast quadrant, 160' in the southwest quadrant and 120' in the southeast quadrant. The corner sight distance is inadequate in quadrants.

At all crossings, except those with gates, a driver stopped 15' short of the near rail must be able to see far enough down the track, in both directions, to determine if sufficient time exists for moving their vehicle safely across the tracks to a point 15' past the far rail, prior to the arrival of a train. Required clearing sight distance along both directions of the track, from the stopped position of the vehicle, is dependent upon the maximum train speed and the acceleration characteristics of

the "design" vehicle. The necessary clearing sight distance at the Inman Parkway crossing is 560'. The available clearing sight distance is greater than 560' in either direction. The clearing sight distance is adequate.

The exposure factor at this crossing is 8200. The exposure factor at this crossing will exceed 11,300 in the design year assuming two train movements per day. 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.

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

The crossing is presently protected with 8-inch flashing light signals. Conditions warrant upgrading the warning devices at this crossing. The existing warning devices will be adequate until such time as the new warning devices are installed. In order to adequately protect public safety the replacement of the 8-inch lenses with 12-inch LED lenses on the existing masts is needed because of the exposure factor, and increased conspicuity of 12-inch LED lenses.

*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 the highway project funds.

#### Conclusion on the Issue

##### THE COMMISSIONER CONCLUDES:

1. That in order to adequately protect and promote public safety, it is necessary to install and maintain 12" LED lamps on the existing signal equipment at the crossing of the tracks of the Dakota Minnesota & Eastern Railroad with Inman Parkway in the Town of Beloit, Rock 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 **Dakota Minnesota & Eastern Railroad** shall install and maintain 12" LED lamps on the existing equipment 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 **Inman Parkway** at-grade in the Town of Beloit, Rock County by **August 1, 2010** (Crossing No. 388 162B).

2. That the **Dakota Minnesota & Eastern Railroad** 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.

3. 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.

4. **That the Dakota Minnesota & Eastern Railroad shall notify the Office of the Commissioner of Railroads upon completion of the signal project.**

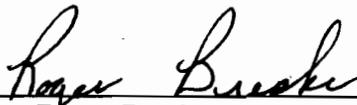
5. That to the extent feasible the **Dakota Minnesota & Eastern Railroad** shall re-use the existing signal equipment.

6. 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.

7. That jurisdiction is retained.

Dated at Madison, Wisconsin,                     **MAY 06 2010**                    .

By the Office of the Commissioner of Railroads.

  
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Roger Breske  
Commissioner of Railroads