

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Rail Safety and Carriers Division
Rail Engineering Safety Branch
Rail Crossings Engineering Section

Resolution SX-26
Date: September 2, 1999

RESOLUTION

RESOLUTION SX-26. PURSUANT TO SECTION 12.2 OF GENERAL ORDER 75-C AUTHORIZING CALIFORNIA DEPARTMENT OF TRANSPORTATION TO PROCEED WITH A SAFETY DEMONSTRATION PROJECT (THE TRIAL INSTALLATION OF LIGHT EMITTING DIODE (LED) RED WARNING LAMPS) AT 18 GRADE CROSSINGS OF THE BURLINGTON NORTHERN SANTA FE RAILWAY COMPANY IN FRESNO COUNTY.

SUMMARY

By letter dated July 2, 1999, the California Department of Transportation (Caltrans) has requested authority pursuant to Section 12.2 of Commission General Order (GO) 75-C, to conduct a trial installation of light emitting diode (LED) red warning lamps at 18 at-grade crossings of The Burlington Northern Santa Fe Railway Company (BNSF) in Fresno County.

Caltrans and BNSF have been working on a series of grade crossing consolidations and improvements in Fresno County. The funding for these projects has come from both the Federal Section 130 as well as Federal Section 1010 program. One of the elements of the Section 1010 funding was to use innovative technology to reduce grade crossing risks. Caltrans found that the newly developed LED red railroad warning lamps appears to offer a significant improvement in visibility distance, especially during the many dense winter fog the occurs in the Fresno County area.

BACKGROUND

Recently there has been considerable interest in the use of light emitting diode (LED) modules for highway traffic signals, railroad-highway grade crossing signals, and changeable message

signs. New technology on LED has, in the last several years advanced dramatically, and has provided solid state lamps with truly spectacular efficacies. These LEDs last longer, require less maintenance and reduces power consumption. Certain LED installations provide ten times the luminous output per input watt when compared to incandescent lamps. LED messaging beacons deliver high visibility and long range remote messaging in one convenient unit. Used at railroad-highway grade crossings, these warning lights can alert motorists of active crossings at distances of over 300 feet.

By Resolution SX-16 dated July 23, 1998, Harmon Industries, on behalf of Modesto and Empire Traction Company (M&ET), was granted authority for a period of 18 months to conduct the trial installation of an experimental interactive network which provides real-time problem detection, recording and reporting of highway grade crossing activities at nineteen M&ET railroad crossings along State Highway 132 in the City of Modesto, Stanislaus County. These nineteen crossings were upgraded with advanced technological features that included LED red railroad warning flashing lights.

The Association of American Railroads has authorized the use of LEDs in signals. The California Department of Transportation presently, also, uses LEDs in traffic signals and message boards. The State of Tennessee Department of Transportation has been using LEDs in signals for some time now. Several railroads have also asked staff members if the Commission would authorize their use in warning devices.

DISCUSSION

Caltrans and BNSF have been working on a series of grade crossing consolidations and improvements in Fresno County. The funding for these projects has come from both the Federal Section 130 and Federal Section 1010 programs. One of the elements of the Section 1010 program was to use innovative technology to reduce grade crossing risks. Caltrans proposes to conduct trial installation of light emitting diodes red railroad warning lights at eighteen BNSF crossings in Fresno County. It is anticipated that the LED warning lamps will offer a significant improvement in visibility distance, especially in the many dense winter fog that occurs in the Fresno County area. Caltrans proposes to install the LED red railroad warning lamps at crossings in Fresno County located at:

	<u>PUC Crossing No.</u>	<u>Street Name</u>
1.	2-976.20	Riverdale Av.
2.	2-979.60	Clovis Av.
3.	2-980.00	Elkhorn Av.
4.	2-981.00	Clarkson Av.
5.	2-981.40	Peach Av.
6.	2-982.10	Conejo Av.

7.	2-984.20	Mountain View Av.
8.	2-984.40	Chestnut Av.
9.	2-985.20	Nebraska Av.
10.	2-986.20	Floral Av.
11.	2-987.70	Springfield Av.
12.	2-988.30	Manning Av.
13.	2-989.30	South Av.
14.	2-990.30	Adams Av.
15.	2-990.80	Clayton Av.
16.	2-991.30	Lincoln Av.
17.	2-992.30	American Av.
18.	2-992.80	Malaga Av.

This is an uncontested matter in which the resolution grants the relief requested. Accordingly, pursuant to PU Code Section 311 (g) (2), the otherwise applicable 30-day period for public comment is being waived.

PROTEST

No protests have been received at this time. The Burlington Northern Santa Fe Railway Company and the Commission staff support this project.

FINDINGS

1. California Department of Transportation (Caltrans) requests authority to conduct a trial installation of light emitting diode (LED) red railroad warning lamps at eighteen at-grade railroad crossings of the Burlington Northern Santa Fe Railroad Company in Fresno County.
2. Caltrans states that LEDs have become more effective, efficient and reliable.
3. The use of LEDs in railroad warning devices would reduce energy consumption, reduce maintenance and would increase the life of the signals and increase safety.
4. No protests have been received.
5. The Commission staff has reviewed the Caltrans proposal and agrees with it.
6. The Caltrans proposal should be granted as proposed.

THEREFORE, IT IS ORDERED that:

California Department of Transportation (Caltrans) be granted an interim authority to conduct a trial installation of light emitting diode (LED) red railroad warning lamps at eighteen BNSF at-grade crossings in Fresno County.

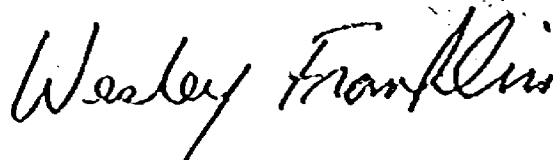
The following requirements shall apply to this project:

1. This experimental project is approved for a period of 18 months from the effective date of this Resolution.
2. Caltrans shall notify The Burlington Northern Santa Fe Railway Company, County of Fresno and the Commission's Rail Safety and Carriers Division -- Rail Crossings Engineering Section staff once the project is completed.
3. Caltrans shall prepare a report on the results of each phase of the project after its completion.
4. Caltrans shall provide a copy of the report and any data collected to the Commission and all agencies and interested parties associated with this project.

This Resolution is effective today.

I hereby certify that this Resolution was adopted by the Public Utilities Commission at its regular meeting on September 2, 1999. The following Commissioners approved it:

RICHARD A. BILAS
President
HENRY M. DUQUE
JOSIAH L. NEEPER
JOEL Z. HYATT
CARL W. WOOD
Commissioners



WESLEY M. FRANKLIN
Executive Director