LED Lights Help Train Operators See Signals Better

By LISA HUYNH

(Dec. 17, 2002) Metro Rail employees in the Wayside Systems Signal Department are evaluating high-tech signal lights they believe will be easier for train operators to see in most weather conditions.

Metro Rail employee Aderemy Omotayo makes a quick inspection before putting the finishing touches on the signals.

As a pilot project, the signal team has converted several signal lights on the Metro Blue Line from incandescent to Light Emitting Diode (LED).

LED signals were installed on the arrival and departure track at the main train yard in Long Beach and at the Pico station. The signal team also installed LED lights on the pedestrian crossing at the Imperial/Rosa Parks station.

Employees in the Wayside Signal Department have successfully changed a signal from incandescent to LED at the train yard in Long Beach.

One of the many advantages of using LED is that it does not generate as much heat as incandescent lights. LED lights also consume less power, but provide a brighter light.

100,000-hour life span

Because LED lights have a life of at least 100,000 hours, signal inspectors will spend less time replacing bulbs and will have more time for maintenance and testing.

The extended life also means inspectors can spend less time working in hazardous areas along the rail right-of-way during revenue operating hours.

“The LED lights can last for at least ten years,” says Robert Chappell, director of Maintenance of Way/Communications. “The incandescent lights have to be replaced at least once a year.”

LED lights are bright, clear and have strong visibility in almost all weather conditions. This is significant because it’s difficult for the train operator to see the color of the signal when the sun shines behind the signal or directly on the lights.

LED lights are brighter

“The operators love them,” says Rail Division Transportation Manager Duane Martin. “They are brighter and can be seen farther in the distance, as well as, when bright sunlight shines on them.”

The signal department receives many reports of dim or dark signals caused by the reflection of the evening sun. These calls often are the

cause of unnecessary train delays.

LED lights are currently used in street intersection lights, for automobile lights and for other uses. A California Public Utilities Commission order also allows their use on at-grade railroad crossings.

Once LED is approved by the MTA Board, all the Metro Blue Line wayside signals will be replaced within a few months.

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