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May 2, 2005

TO: BOARD OF DIRECTORS

THROUGH: ROGER SNOBLE
CHIEF EXECUTIVE OFFICER

FROM: JAMES L. de la LOZA
CHIEF PLANNING OFFICER

SUBJECT: RESPONSE TO DIRECTORS' REQUESTS ON GLENDALE METROLINK INCIDENT OF JANUARY 26, 2005

ISSUE

This report responds to requests from Directors Zev Yaroslavsky, Gloria Molina, and Tom La Bonge regarding the Metrolink incident in Glendale on January 26, 2005.

DISCUSSION

On Tuesday, January 26, 2005, a southbound Metrolink Ventura County Line train struck an automobile that was intentionally parked on the tracks. Part of the automobile became lodged under the train. The train derailed, struck a Union Pacific locomotive parked on a siding, and finally sideswiped a northbound Metrolink train. Eleven people were killed and 200 injured in the incident. Directors Yaroslavsky, Molina and La Bonge requested reports from the Southern California Regional Rail Authority (SCRRA) on issues relating to the incident. Director Yaroslavsky requested a report on engines in the rear versus front of the train. Director Molina requested recognition of the Costco employees for their involvement at the scene of the incident. Director La Bonge requested a report on the lessons learned from the incident.

On February 18, 2005, we forwarded the Directors' requests to SCRRA staff and requested a response. On March 29, 2005, the SCRRA provided the reports in Attachment A.

NEXT STEPS

We will support the SCRRA's efforts to identify funding for sealed corridor and other commuter rail safety improvements, as described in the reports in Attachment A. We will report back to the Board of Directors on any pertinent developments regarding the push-pull mode of train operations.

ATTACHMENT A

SCRRA REPORTS IN RESPONSE TO METRO BOARD DIRECTORS' REQUESTS

1. Report on Engines in the Rear vs. Front of the Train

The Southern California Regional Rail Authority (SCRRA) believes that the January 26th derailments in Glendale resulted from a rare coincidence of events that occurred in a very short time. For example, if the northbound train had passed even seconds earlier, it would not have been struck by the derailed southbound train. Metrolink's passenger cars stayed upright despite derailing before contact with the Union Pacific locomotive parked on the adjacent siding. The collision with the locomotive, not the derailment itself, caused the southbound train to jackknife. The trespasser's vehicle that was struck by the southbound train was not at the crossing. It had been driven down along the tracks about 150 feet and then driven up and onto one of the tracks, becoming "high-centered" on the rails.

The operation of passenger trains in "push-pull" configuration is a method that has been used for many years throughout the world. This mode of operation allows commuter train services to operate as efficiently as possible. It avoids the time-consuming and expensive need to turn trains around every time they complete a run. Even so, in a "push-pull" operation, trains operate with a locomotive in front approximately 50% of the time. In general, Metrolink trains that are outbound from Los Angeles (or outbound from Orange County to the Inland Empire) all have the locomotive in front.

Federal standards require that commuter train locomotives and cab control cars that operate in the front of trains meet the same structural and crashworthiness standards. There have been many incidents where objects or vehicles have been struck by passenger trains with locomotives in front or with a passenger car in the lead. While there is a weight difference between the two (254,000 pounds for a locomotive and 114,000 pounds for a passenger car), some have derailed and some have not. For example, in 1999 an Amtrak train with two locomotives in front struck the rear end of a flatbed trailer truck loaded with steel at a street crossing in Bourbonnais, Illinois. Both locomotives and several passenger cars derailed. Eleven passengers died and 130 were injured in the derailment and ensuing fire. In general, it has not been shown that there is any difference in safety for passengers riding in a lead passenger car or in the first car behind a locomotive.

In 1997, the Federal Railroad Administration's Volpe Center performed a study that looked at two specific incidents involving commuter trains with passenger cars in the lead. Both incidents involved human error on the part of train engineers who allowed their trains to pass red signals indicating their trains should stop. Each train collided with another passenger train resulting in derailments and loss of life. The study resulted in the Federal Railroad Administration (FRA) issuing an Emergency Order (E.O. #20) requiring that commuter railroads that operate with passenger cars in the

until further notice. The SCRRA believes this is a prudent action to take until more information on the issue of operating trains with locomotives in the rear is available.

B. The SCRRA and its member agencies have requested funding for elements of a "sealed corridor" approach and continue to request funding support for the application of the "sealed corridor" concept to designated segments of the Metrolink system. The concept identifies a rail corridor with several crossings and applies an integrated program of improvements to improve the safety at grade crossings and to greatly restrict access to the right-of-way along the entire stretch. Although the SCRRA and its member agencies have continuously funded and implemented grade crossing improvements, crossing closures and aggressive education programs since its creation in 1991, there has never been sufficient funding for a coordinated corridor-wide approach. A "sealed corridor" program would build on 14 years of safety enhancements funded by SCRRA, Amtrak and the State of California. This "sealed corridor" integrated approach can be more effective than applying those enhancements on a crossing-by-crossing basis. The FRA granted and funded a similar designation to the North Carolina Department of Transportation for a rail corridor between Raleigh and Charlotte in 1992. The "sealed corridor" concept uses several types of physical or technological improvements at crossings to enhance their safety. Among those are:

- Four-quadrant gates or crossing gates that close off all lanes of travel across railroad tracks on both sides of the tracks;
- Extended gate arms that block more of the roadway when lowered;
- Median separators or raised islands in the median of the roadway to discourage drivers from maneuvering into the lanes on the opposite of the road to drive around lowered crossing gates;
- New signs and pavement markings;
- Crossing signal "health monitoring" systems that can immediately report any malfunction in crossing warning devices to railroad personnel; and
- Locked gates to limit vehicular access to the rail right-of-way.

The SCRRA has participated for several years as an active member of the American Public Transportation Association's Passenger Rail Equipment Safety Standards (PRESS) Task Force. Metrolink's Director of Equipment chairs one of the Task Force committees. Two of this task force's goals are to develop and maintain practices and standards for passenger rail equipment and to foster cooperation through all commuter railroads in the development of system safety plans, common equipment guidelines, maintenance policies and reliability guidelines.

SCRRA staff has also participated in work that the FRA Rail Safety Advisory Committee (RSAC) has performed. In 1996, the FRA established the Railroad Safety Advisory Committee (RSAC) "...to develop new regulatory standards, through a collaborative process, with all segments of the rail community working together to fashion mutually

satisfactory solutions on safety regulatory issues." Metrolink's Director of Equipment is one of the national commuter rail representatives on the committee.

Both groups look at safety issues throughout the passenger rail industry and propose changes based on input from many different stakeholders. Research into the design and safety of passenger rail cars is international and ongoing. Metrolink will be working with state and federal regulatory agencies over the next several months to complete the investigation of the derailments and to look at any additional safety enhancements to their trains.