

ORIGINAL

Decision 88 11 046

NOV 29 1988

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In the Matter of the Application of)	
the San Diego Metropolitan Transit)	
Development Board for exemption from)	
certain PUC staff interpreted rules)	Application 88-08-065
of braking capability of the new U-2)	(Filed August 26, 1988)
light rail transit vehicle, as set)	
forth in General Order 143.)	

OPINION

San Diego Metropolitan Transit Board Development Board (MTDB) requests an exemption from § 9.2.3¹ of General Order (GO) 143.

MTDB, through its wholly owned subsidiary San Diego Trolley, Inc., operates electrically propelled light rail vehicles (LRVs) on its south line to San Ysidro and its east line to Euclid. At present it uses 30 LRVs manufactured by Siemens-Duewag, a consortium consisting of "Siemens," a West German company, and "Duewag," a U.S. company.

On September 17, 1984, MTDB filed Application (A.) 84-09-044; and in Decision (D.) 84-12-049, the Commission granted an exemption from the requirement of § 9.2.3 for its existing fleet of 30 LRVs. MTDB will procure 41 additional LRVs to be delivered as two consecutive orders of 21 and 20 vehicles, respectively, for its proposed east line extension to El Cajon. The braking system

1 § 9.2.3 provides:

"In the event of dynamic brake failure, the friction brake system shall have the capability of providing an average braking rate of not less than the minimum rate established by the Transit Authority over the entire operating range."

design and performance for these new vehicles will be identical to the braking system design and performance for the existing 30 vehicle fleet. In addition, MTDB will individually test and certify the braking system on each new vehicle before integrating it into the present fleet.

The LRVs have three braking systems: (1) a dynamic braking system, using a form of power reversal of the vehicle's electric propulsion motors to stop the vehicle, (2) a friction braking system, operating like the disc brakes of an automobile, and (3) a track braking system, providing resistance to motion by generating a magnetic force between the vehicle and the rails on which it rides. If the dynamic braking system fails, the failure is announced audibly and visually on the operator's console, and at the same time the friction braking system automatically applies full force. If the train operator needs to achieve the full braking force of the failed dynamic system, he may increase the braking effort by simultaneously applying the track brakes. He may do this either by independently applying the track brake control or by moving the speed control lever to the emergency position. MTDB submits that the friction and track braking systems combined will substitute for the loss of the dynamic braking effort.

In reply to a staff inquiry, MTDB submitted data to show that the new vehicles will be identical to the existing vehicles in design and performance of the braking systems. In addition, staff visited the Sacramento plant where the 41 new LRVs are being assembled and, through discussions with Siemens-Duewag personnel, received further assurances that the braking systems for the 41 additional vehicles are identical in design and performance to those of the 30 existing vehicles.

The present fleet has performed satisfactorily without any incident due to brake failure since it began revenue service in July 1981. Although the braking systems on both the new and old MTDB LRVs do not literally meet the requirements of GO 143,

§ 9.2.3, staff believes public safety will not be compromised if the requested exemption is granted for the 41 additional LRVs.

Applicability to Future LRVs

Applicant also requests that the Commission extend the exemption to all future LRVs having the same system design and performance characteristics unless operating experience counters MTDB's arguments or the design is modified making its arguments inapplicable, in whole or in part.

Findings of Fact

1. MTDB operates a public transit system using LRVs.
2. MTDB requests an exemption from the provisions of § 9.2.3 of GO 143 for 41 additional LRVs under procurement and to extend the exemption to all new and future LRVs of the same braking performance and design. MTDB received a similar deviation in D.84-12-049 for 30 of the same type of LRVs.
3. Design and performance requirements of the braking systems for the 41 additional LRVs are identical to those for the original 30 LRVs.
4. The braking system used on MTDB's LRVs provides adequate protection for its employees and the public.
5. The Commission staff concurs with MTDB and recommends that the exemption be granted.
6. The Commission has received no comments, protests, or requests for hearing. A public hearing is not necessary.

Conclusions of Law

1. MTDB's request for an exemption from GO 143, § 9.2.3, as to the 41 LRVs now on order, should be granted.
2. MTDB's request for an exemption from GO 143, § 9.2.3, as to future purchases of LRVs having the same braking system design and performance characteristics as its existing fleet, should be granted.

3. In view of the imminent delivery and operation of the LRVs in revenue service, the following order should be effective immediately.

ORDER

IT IS ORDERED that:

1. The 41 additional light rail vehicles (LRVs) ordered by the San Diego Metropolitan Transit Development Board and all future LRVs with identical braking system design and performance characteristics are exempt from General Order (GO) 143, § 9.2.3.

2. No modifications may be made to the LRVs exempted from GO 143, § 9.2.3 by this order that change the braking system design or performance characteristics without the prior approval of the Commission.

3. The application is granted as set forth above.


This order is effective today.

Dated NOV 23 1988, at San Francisco, California.

STANLEY W. HULETT
President

DONALD VIAL
FREDERICK R. DUDA
G. MITCHELL WILK
JOHN B. OHANIAN
Commissioners

I CERTIFY THAT THIS DECISION
WAS APPROVED BY THE ABOVE
COMMISSIONERS TODAY.


Victor Weiner, Executive Director
