

Decision 84 12 049

DEC 19 1984

**ORIGINAL**

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 interpreted Rules of braking )  
 capability of the U-2 light rail )  
 transit vehicle, as set forth in )  
 General Order 143. )

Application 84-09-044  
 (Filed September 17, 1984;  
 amended September 27, 1984)

O P I N I O N

By this application, San Diego Metropolitan Transit Development Board (MTDB) requests an exemption from § 9.2.3<sup>1</sup> of Commission General Order (GO) 143.

MTDB operates the San Diego Trolley, a light rail public transit system, between the Amtrak Depot in downtown San Diego and San Ysidro at the US-Mexico border. MTDB uses 24 light rail vehicles (LRVs) in the operation which are manufactured by Siemens, a German company. Six additional vehicles of the same design are on order to provide service for expanded operations. MTDB has been operating the LRVs since July 1981 under an understanding with our staff that the braking system met the intent of GO 143. However, prospective purchases of the LRVs by other operators in the state reveal that the braking system may not comply fully with the general order. Hence, MTDB seeks the exemption so there will be no question of compliance with our rules and regulations. MTDB contends, and our staff agrees, that there has never been an incident occurring in revenue service which could be attributed to a braking system incapacity on the LRVs.

<sup>1</sup> § 9.2.3 provides that "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."

The LRVs have three braking systems. These consist of a dynamic system, which uses a form of power reversal of the vehicle's electric motor to stop the vehicle, a friction system which operates like the disc brakes of an automobile, and an emergency system which grabs the tracks on which the vehicle rides. If the dynamic brake fails on the LRV, the failure is annunciated immediately by an audible alarm and a visual indication on the operator's console. At the same time, the friction brake will apply full force automatically. Because this is a service application, the operator may increase the braking effort by applying the track brakes also. MTDB submits that the combined friction and track brake capabilities of the present fleet effectively substitute for any loss of dynamic service brake effort.

Attached to MTDB's application is a summary of brake failures reported by operators of the Siemens LRVs since 1968, when the vehicles were introduced, in the cities of Frankfurt, Edmonton, Calgary, and San Diego. The data show that in over 55 million miles of operation there have been only four dynamic brake failures and no disc or track brake failures.

On November 5, 1984, the manager of the Commission's Rail Systems Safety Section reported to the assigned administrative law judge that a study by the staff of the braking system capabilities on the LRVs operated by MTDB corroborated MTDB's claims. The staff concluded that the granting of the requested variance will not compromise the safety of the general public or MTDB's employees.

MTDB operates partially over track shared with the San Diego & Arizona Eastern Railroad (SD&AE). The United Transportation Union (UTU) represents, among others, the operating employees of SD&AE. UTU was the only party that acknowledged service of the application and it made no comments. No comments from any other parties were received and no request for hearing by any party was made.

Although it appears that the braking system on the MTDB LRVs may not technically meet the requirements of GO 143, the combined braking systems used provide adequate safety protection for the public and MTDB employees and the deviation requested is reasonable.

Findings of Fact

1. MTDB operates a public transit system on a fixed guideway which, under § 99152 of the Public Utilities Code, is subject to regulations of the Commission relating to safety appliances and procedures.
2. MTDB requests a deviation from the provisions of § 9.2.3 of GO 143.
3. MTDB has shown that the braking system used on its LRVs provides adequate protection for its employees and the public.
4. The Commission staff concurs with MTDB and recommends the deviation be granted.
5. Other than the staff, no parties responded to this application.
6. A public hearing would serve no useful purpose and, therefore, is not necessary.

Conclusion of Law

MTDB's request for a deviation from GO-143 should be granted.

O R D E R

IT IS ORDERED that:

1. The 24 light rail vehicles operated by the San Diego Metropolitan Transit Development Board (MTDB) on its light rail transit operation in San Diego and environs and the six additional vehicles on order for that operation are exempt from § 9.2.3. of Commission General Order 143.

2. Any proposed modifications to the braking systems described by MTDB on this application shall be reported immediately to the Commission's Rail System Safety Section for review and shall not be installed without its approval.

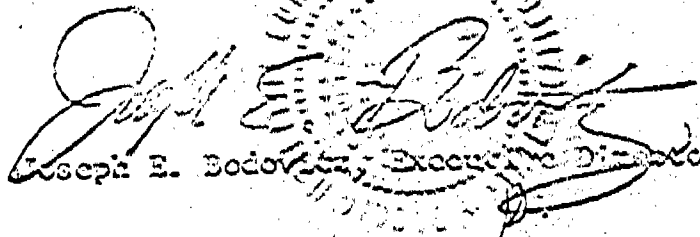
3. The application is granted as set forth above.

This order becomes effective 30 days from today.

Dated DEC 19 1984, at San Francisco, California.

DONALD VIAL  
President  
VICTOR CALVO  
PRISCILLA C. GREW  
WILLIAM T. BAGLEY  
FREDERICK R. DUDA  
Commissioners

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

  
Joseph E. Bodovitz, Executive Director