

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Consumer Protection and Safety Division  
Rail Transit and Crossings Branch  
Rail Crossings Engineering Section

Resolution SX-82  
April 10, 2008

**RESOLUTION**

RESOLUTION SX-82. GRANTING AUTHORIZATION TO DEVIATE FROM THE PROVISIONS OF SECTION 9.5 OF GENERAL ORDER 75-D BY MODIFYING THE SOUNDING OF BELLS AT SANTA CLARA VALLEY TRANSPORTATION AUTHORITY HIGHWAY-LIGHT RAIL CROSSINGS AT STOKES STREET, LEIGH AVENUE, AND FRUITDALE AVENUE IN THE CITY OF SAN JOSE IN SANTA CLARA COUNTY.

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**SUMMARY**

By letter dated August 23, 2007, Santa Clara Valley Transportation Authority (VTA) requested an exemption from the provisions of Section 9.5 (Audible Warning Devices) of General Order 75-D for altering the bells at three crossings in the City of San Jose. VTA will lower the bells in the northeast, northwest, and southwest quadrants to a minimum height of 8.5 feet from the ground on the warning devices located at Stokes Street (CPUC Crossing No. 82D-5.30). VTA will lower the bells in the northeast and southwest quadrants to a minimum height of 8.5 feet from the ground on the warning devices located at Leigh Avenue (CPUC Crossing No. 82D-5.10). VTA will lower the bells on the warning devices located at Fruitdale Avenue (CPUC Crossing No. 82D-5.00) to a minimum height of 8.5 feet from the ground in the northeast, northwest, and southwest quadrants, and to a minimum height of 10 feet from the ground in the southeast quadrant. VTA will also install shrouds covering the northwest face of the bells in the northeast and northwest quadrants of the Fruitdale Avenue rail crossing. This resolution authorizes the requested exemption.

**DISCUSSION**

Section 9.5 of General Order 75-D requires bells or other audible warning devices be included in all automatic warning device assemblies and shall be operated in conjunction with the flashing light signals. Section 9.5 references the American Railway Engineering and Maintenance of Way Association's (AREMA) Communications and Signals Manual of Recommended Practices, which in its 2005 edition states, under Part 3.2.61, the peak sound reading 10 feet from the bell in a 360-degree plane should not be more than 105 dbA and not less than 75 dbA.

VTA initially approached Rail Crossings Engineering Section (RCES) staff in 2005 regarding noise issues and complaints along this rail corridor. It determined it would have an analysis performed and then approach RCES with its proposed solutions. After reviewing the March 31, 2006 ATS Consulting report titled "Vasona Light Rail Downtown Campbell Grade Crossings Audible Warning Devices – Noise Reduction" (Report) and the meeting minutes of a July 19, 2006 diagnostic review of the crossings, RCES staff provided its recommendations to VTA on September 11, 2006. In its August 23, 2007 letter, VTA requested exemptions from the audible warning device requirements consistent with staff's recommendations.

In order to quantify the results from these proposed changes, VTA proposes to perform the following effectiveness monitoring as described in the request:

1. VTA shall take bell sound level readings at all four pedestrian approaches to the crossings along the sidewalks at 3, 10 and 20 feet from the outside rail before and after performing the modifications. If necessary, as indicated by post-installation measurements, the bell volume shall be adjusted to provide at least the minimum AREMA audible warning level.
2. VTA shall take bell sound level readings at the original locations utilized in the ATS Consulting report, as specified in Exhibit R of VTA's request, for site location numbers 3 and 4 of that exhibit (the San Jose crossings). Specifically, measurements will be taken at the apartment complexes located at 1011 Leigh Avenue and 1489 Fruitdale Avenue, before and after the changes are implemented, to assess any bell sound level reductions obtained from these modifications.

In addition to VTA's request in this matter, staff has the benefit of the report prepared by VTA in response to the requirements of Resolution SX-80, a similar request to modify the bells at several crossings in the City of Campbell. The report, submitted to staff on February 21, 2008, shows expected results for similar modifications to the bells at those crossings, and results in an audible warning for pedestrians in the vicinity of the crossing at an approximately equivalent level, and within the AREMA specifications. Given the results of the report and VTA's commitment to similar testing and reporting, the request is reasonable.

### **RECOMMENDATION**

RCES staff has reviewed and analyzed VTA's request and recommends that the requested exemption be approved with the following provisions:

1. VTA shall monitor the modifications at the locations and in the manner it proposes and furnish a report to the Commission's RCES assessing its monitoring of the impacts of the modifications within 60 days after implementing the changes.
2. If for any reason RCES staff determines that these modifications result in unsafe conditions or result in any unintended adverse consequences, RCES shall recommend to the Commission immediate remedial action or revocation of this exemption.

This is an uncontested matter in which the resolution grants the relief requested. Accordingly, pursuant to Section 311(g) (2) of the Public Utilities Code and Rule 14.6(c)(2) of the Commission's Rules of Practice and Procedure, the otherwise applicable 30-day period for public review and comment is waived.

### **FINDINGS**

1. VTA requested, by letter dated August 23, 2007, the authority to modify the configuration and minimum height of bells at the Stokes Street (CPUC# 82D-5.30), Leigh Avenue (CPUC# 82D-5.10), and Fruitdale Avenue (CPUC# 82D-5.00) crossings of their tracks in the City of San Jose.
2. Staff has reviewed the proposal and finds that the request has merit and should be granted.

### **THEREFORE, IT IS ORDERED THAT:**

1. Santa Clara Valley Transportation Authority (VTA) is authorized to deviate from the provisions of Section 9.5 of General Order 75-D by modifying the height of the bell assemblies and the sound directionality of the bells for the grade crossing warning devices located in the northeast, northwest, and southwest quadrants of the crossing at Stokes Street (CPUC# 82D-5.60), the northeast and southwest quadrants of the crossing at Leigh Avenue (CPUC# 82D-5.10), and the northeast, northwest, southeast, and southwest quadrants of the crossing at Fruitdale Avenue (CPUC# 82D-4.70) in the City of San Jose, as specifically described in its request and outlined herein.
2. VTA is directed to submit a report summarizing and assessing the results of its post-installation monitoring of noise levels to the Rail Crossings Engineering Section of the Consumer Protection and Safety Division with 60 days after implementing the modifications.

This resolution is effective today.

I hereby certify that this resolution was adopted by the Public Utilities Commission at its regular conference on April 10, 2008. The following Commissioners approved it:

/s/ PAUL CLANON  
PAUL CLANON  
Executive Director

MICHAEL R. PEEVEY  
President  
DIAN M. GRUENEICH  
JOHN A. BOHN  
RACHELLE B. CHONG  
TIMOTHY ALAN SIMON  
Commissioners