

**ORIGINAL**Decision No. 67616

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Investigation into the safety,  
 maintenance, operation, use and  
 protection of the following  
 crossing at grade, the line of the  
 Richmond Belt Railway in the  
 County of Alameda, California:  
 Crossing No. 34-0.15.

Case No. 7824

Randolph Karr and Harold S. Lentz, for Southern  
 Pacific Company and The Atchison, Topeka and  
 Santa Fe Railway Company, and Daniel J.  
 Curtin, Jr., for City of Richmond, respondents.  
Richard Canham and A. A. Wright, for Standard  
 Oil Company of California, interested party.  
Lawrence O. Garcia, for the Commission staff.

O P I N I O N

This investigation was heard and submitted on April 14,  
 1964, before Examiner Thompson at Richmond. The investigation  
 instituted January 21, 1964, concerns the safety, maintenance,  
 operation, use and protection of a crossing at grade on Castro  
 Street, City of Richmond, of railroad tracks used by Southern  
 Pacific Company (S.P.) and The Atchison, Topeka and Santa Fe  
 Railway Company (Santa Fe).

The order of investigation names Richmond Belt Railway  
 Company, S.P., Santa Fe and the City of Richmond respondents. The  
 tracks of Richmond Belt Railway Company were purchased jointly by  
 S.P. and Santa Fe in 1932. One of those tracks, hereinafter called  
 the Richmond Belt line, is in the crossing with which we are  
 concerned here. S.P. and Santa Fe stipulated that any order directed  
 to Richmond Belt Railway Company in this proceeding should be

directed to S.P. and Santa Fe instead. The proper respondents, therefore, are S.P., Santa Fe and the City of Richmond.

The scope of the inquiry includes the following determinations:

1. Whether the installation of additional or improved protective devices at said crossing are required.
2. Whether relocation, widening or other alteration of the crossing is required.
3. The terms and conditions on which any such installation and maintenance of additional or improved protective devices, relocation, widening, or other alterations shall be done.
4. The apportionment of costs, including maintenance costs, among the respondents as may appear to be just and reasonable.

Evidence was offered by respondents and by the Commission staff. The parties are agreed that improved and additional protective devices are required at the crossing and that widening, relocation or other alteration of the crossing is not required at this time. They do not agree as to the terms on which such installation and maintenance of additional and improved protective devices shall be provided nor do they agree as to the apportionment of costs to be made.

The crossing designated No. 34-0.15 is located in the industrial area in the western section of the City of Richmond. This area is separated from the eastern portion of the city by main line tracks of S.P. and Santa Fe. Castro Street parallels those tracks and is the only access to the western side between Standard Avenue on the south and Enterprise Avenue (Kensley Street) on the north, a distance of approximately 1½ miles. The crossing

is about midway between Standard Avenue and Enterprise Avenue. Crossing No. 34-0.15 has 5 tracks, all within a distance of less than 75 feet. The northerly track is the Richmond Belt line, the southerly one is a spur track of Standard Oil Company and the three middle ones are designated as side tracks; two of the latter go to the Santa Fe's interchange yard and the other connects with the S.P. main line. The three side tracks are owned by Standard Oil Company and are used by respondent railroads to switch cars throughout the extensive property of Standard Oil Company in that area. All five tracks are interconnected with each other within 300 feet of either side of the crossing.

The Richmond Belt line commences 0.15 of a mile east of the crossing, serves Standard Oil Company to the west of the crossing, and then continues westerly around Point San Pablo to Point Molate where it serves the Naval Supply Center and terminates at Quarry Products, Inc. The distance of this line is 6.3 miles.

The Commission staff made four 8-hour traffic counts at this crossing. Two such counts were made in February 1963 and two in March 1964. The 16-hour totals for the count in 1963 were 1,664 automobiles, 1,149 trucks and 84 train moves over the crossing. Seventy-five of the trucks were petroleum tank trucks. The 16-hour totals for the count in 1964 were 2,201 automobiles, 1,008 trucks and 64 train moves over the crossing. Of the 1,008 trucks, 146 were petroleum tankers. It was estimated that those counts represent ninety percent of the daily traffic over the crossing. The maximum authorized train speed over the crossing is 15 miles per hour. The legal maximum speed limit of motor vehicles over the crossing is 15 miles per hour. Since January 1, 1954, there have

been a total of 15 accidents at the crossing. In five of the accidents a total of eight persons were injured. There were no fatalities. Two of the fifteen accidents involved petroleum tank trucks. Most of the train movements over the crossing involve transportation of petroleum products of Standard Oil Company.

This crossing is very hazardous in that the views of oncoming trains from the vehicle approaches are obstructed by buildings. The physical characteristics of the crossing are such that it is very difficult to properly install suitable protective devices. From Standard Avenue, Castro Street runs generally in a northeasterly direction. Approximately 250 feet from the crossing the street turns about 45 degrees to a northerly heading. Immediately across the railroad tracks at the crossing Castro Street makes a 90 degree bend to the right and proceeds easterly paralleling the Richmond Belt line for about 400 feet where it turns left about 45 degrees and resumes its northeasterly direction. Standard Oil Company owns the property on the west side and on the north side of Castro Street in the vicinity of the crossing. Immediately to the north of the crossing, where Castro Street turns 90 degrees to the east, is an entrance to the Standard Oil Company property.

All of the parties agree that the crossing should be protected by No. 8 flashing light signals with back lights. The railroads submitted a design of protection which provides for two No. 8 flashing light signals with back lights on the southern side of the crossing, and, on the northern side of the crossing two No. 8 flashing light signals with back lights facing in a north-south direction, two No. 8 flashing light signals with back lights

facing in an east-west direction and an additional two No. 8 flashing light signals mounted on a cantilever arm facing in an easterly direction. This type installation is necessary because the northern crossing signals should face traffic that may emerge from the entrance to Standard Oil Company and the oncoming traffic on Castro Street. Also, because of the probability of those signals being obscured by a truck or semitrailer waiting at the crossing, additional signal lights should be raised on a cantilever arm in order to assure proper warning of oncoming trains.

The railroads propose that the flashing light signals be activated on the outside tracks (Richmond Belt line and the Standard Oil Company spur) by standard track circuits without time-out features and that the three inner tracks (Standard Oil Company side tracks) be activated by grade crossing predictor units. The predictor unit circuitry is a relatively new development that is able to determine the movement of trains and their speed within the prediction limits (in this instance between 600 and 1,000 feet on either side of the crossing), so that the signals are not activated any longer than is necessary to protect the crossing. According to the railroads, the predictor units function much better than the other time-out circuits which have been used in the past. It was stated that the reason the predictor units are being installed on the three inner tracks and not on the outside tracks is the preponderance of train movements on those three tracks. It would also appear from the switches in the immediate area of the crossing that much of the train movement over the crossing is of the switching type and that

such type movement usually involves one, or more, of the three inner tracks.

It was stated that because of the peculiar characteristics of this crossing where there are five tracks and they are all interconnected within 300 feet of the crossing, the cost of installing predictor units would be about the same as installing the older type time-out circuits. Although the railroads have not yet had sufficient experience in the maintenance of the predictor units, it was stated there is good reason to believe that the maintenance costs of the predictor units may be lower than those involved in the other time-out circuits because the predictor unit requires only two insulated joints on the rails and the others require many such joints.

S.P.'s grade crossing engineer estimated that the cost of installing the protective devices suggested by the railroads and specified in Exhibit 2, would amount to \$29,840. He said that the time-out circuitry (predictor unit) amounts to about half of that cost and that an installation consisting of the flashing light signals recommended in Exhibit 2 activated only by simple track circuits would cost about \$15,000. He estimated the annual maintenance expense to be \$1,702 which capitalized at 5 percent would amount to \$34,160.

The railroads suggest that the costs of installing and maintaining the improved protection (\$64,000) be apportioned 50 percent to the railroads and 50 percent to the City of Richmond.

The Commission staff recommends the installation of the protective system described in Exhibit 2 and that the cost of such installation (\$29,840) be apportioned on the basis of 50 percent

to the railroads and 50 percent to the City of Richmond. It recommends that the railroads be required to maintain the protection and to pay the entire cost thereof.

The City of Richmond did not make its position clear in this matter. It called as its witness a representative of Standard Oil Company who testified that Standard is willing to pay its fair share of the improved protection and that its engineers estimated that its share should be around \$12,000. He said that he did not know to whom the money would be paid; however, there are agreements and leases between the company and the railroads which may contain provisions for payments to the railroads. He said the terms of such leases and agreements would be fulfilled by Standard.

From its direct presentation and from its cross-examination of other witnesses, there is an implication that the City of Richmond wants the Commission to prescribe the terms of participation by Standard Oil Company in this project or in making its allocation between the city and the railroads to give consideration to the proposed participation by Standard and to the fact that at least 50 percent of the cost of installation of the suggested protection results from the use of predictor units which are to be placed on the tracks owned by Standard.

Standard Oil Company has not been made a respondent to this investigation. The city did not move that Standard be made a respondent. In the circumstances the Commission will not herein order Standard Oil Company to participate in the project, apportion part of the cost of the project to Standard, or designate the party to whom Standard should pay such funds as

it may be willing to contribute towards the cost of this project.

We find that:

1. The amount of motor vehicle traffic, the number of train movements, the obstructions which prevent full and unrestricted vision of the highway from trains and of the railroad tracks from the highway, the five tracks included in the crossing and the physical characteristics of the street at the crossing and its approaches create greater than usual hazard at Crossing No. 34-0.15.

2. The existing No. 1 crossing signs at this crossing do not provide adequate protection to the public health, safety and welfare;

3. The minimum protection required by public health, safety and welfare consists of sets of No. 8 flashing light warning signals installed on the north side and on the south side of the crossing.

4. The frequency of train movement and the type of train movement on the three inside tracks (Standard Oil Company side tracks) together with the amount of vehicular traffic on Castro Street necessitate the installation of devices controlling the activation of the No. 8 flashing light signals in such a manner as to relieve unnecessary obstruction of the crossing by trains.

5. The protective system designed by respondent railroads, including the grade crossing predictor unit devices, and more particularly described and set forth in Exhibit 2 herein, provides the minimum protection required by public health, safety and welfare at a reasonable cost.



6. The necessity for the installation of No. 8 flashing light signals, standard and cantilever arm in excess of one pair on a standard on each side of the tracks is wholly attributable to conditions outside of the tracks and right of way and the cost of such additional flashing lights and cantilever arm is approximately eight percent of the total project.

7. The necessity for the installation of the predictor units results mainly from the frequency of train movements and the type of train movements on the three inner tracks and only partially from the amount of vehicular traffic on Castro Street.

8. A reasonable relationship to the causes of the necessity for the installation of time-out circuitry (predictor units) is 90 percent from the train movements and 10 percent from the movement of vehicular traffic.

9. The cost of the installation of the predictor units represents 50 percent of the cost of the installation of the protective system.

10. The railroad respondents and the City of Richmond will both benefit from the improvement of the protection at this crossing although the advantages to each cannot be calculated in dollars and cents.

11. Public health, safety and welfare do not require the relocation, widening or alteration of said crossing other than the installation of the No. 8 flashing light signal warning system described above.

12. Respondent railroads are able to install and maintain the improved protective system in accordance with the design specified in Exhibit 2.

We conclude that the Southern Pacific Company and The Atchison, Topeka and Santa Fe Railway Company, jointly, should be ordered to install the improved protection described in Exhibit 2.

We come now to the matter of the apportionment of the costs of installing and maintaining the improved protective system. We have applied the following considerations to the findings stated above:

1. Historically when public health, safety and welfare have required improved or additional protective devices at grade crossings and the necessity therefor cannot be solely attributed to the railroad or the public agency affected thereby, and where the benefits to the railroad and the other parties cannot be calculated in dollars and cents, the Commission has generally apportioned the costs of installation on the basis of 50 percent to the railroad affected thereby and 50 percent to the other parties affected thereby.

2. Where all or part of the necessity for additional or improved crossing protection results from highway conditions, the agency controlling that highway must be expected to pay the cost of installing that portion which can be directly attributed to the highway conditions. ✓

3. Where all or part of the necessity for improved crossing protection results from conditions of the railroad track, right of way or the movement of trains, the railroad affected thereby must be expected to pay that portion of the installation cost directly attributable to the railroad conditions. ✓

4. The railroad has priority over the crossing protected by electric warning signals<sup>1/</sup> and therefore presents an obstruction or barrier to the movement of vehicles over the highway and it has an obligation to cause as little obstruction to traffic as possible.

5. The railroad has a continuing obligation to maintain safety devices including protective devices at grade crossings when the health or safety of its employees, passengers, customers or the public may demand.

We find that an apportionment of the cost of installing the improved protection at Crossing No. 34-0,15 upon the basis of one third to be paid by the City of Richmond and two thirds by the respondent railroads is just and equitable. We conclude that the apportionment of the installation costs should be made in accordance with that finding.

The railroads attempted to present evidence on the issue of the apportionment of the costs of maintaining the protection at the crossing. Objections to the introduction of such evidence were sustained by the examiner. Following an offer of proof made by respondent railroads, the examiner refused to receive evidence on that subject. We affirm those rulings. In Decision No. 66881 dated February 25, 1964, in Cases Nos. 7463 and 7464, the Commission stated,

"The Commission takes this means of placing all parties who may be involved presently or in the future

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<sup>1/</sup> Vehicle Code, Section 22451(a): "Whenever any person driving a vehicle upon a highway approaches an interurban electric or steam railway grade crossing and a clearly visible electric or mechanical signal device gives warning of the immediate approach of a railway train or interurban car, the driver of the vehicle shall stop within 50 feet but not less than 10 feet from the nearest track of the railway but need not remain standing if he can proceed safely."

in railroad crossing proceedings before the Commission, on notice that the Commission will, in all cases, assess against the railroad or railroads involved the entire cost of maintaining protective devices at railroad crossings, and that the Commission will not consider evidence or argument addressed to that issue which seeks to have such maintenance cost assessed to any party other than the railroad or railroads involved. We will maintain the Commission's historical policy of requiring the railroad to bear the entire cost of maintaining protective devices at railroad crossings."

In accordance with the policy stated above, the respondent railroads will be ordered to maintain the protective devices at this crossing and to pay the full cost of such maintenance.

O R D E R

IT IS ORDERED that:

1. Respondents Southern Pacific Company and The Atchison, Topoka and Santa Fe Railway Company shall install at Crossing No. 34-0.15 (Castro Street) in the City of Richmond the automatic protective devices described and specified in Exhibit 2.

2. The costs of installing the automatic protective devices ordered hereinabove shall be apportioned on the basis of one third to be borne by the City of Richmond and two thirds to be borne by respondent railroads. ✓

3. The automatic protective devices at said crossing shall be maintained by the railroads affected thereby.

4. The costs of maintaining the automatic protective devices at said crossing shall be borne by the railroads affected thereby. ✓

5. The installation of the additional protection ordered in paragraph 1 hereof shall be completed within six months of the effective date of this order.

The Secretary of the Commission is directed to cause certified copies of this decision to be served upon each respondent and all other appearances of record.

The effective date of this order, as to each respondent, shall be twenty days after service upon such respondent.

Dated at San Francisco, California, this 28<sup>th</sup> day of July, 1964.

[Signature] President  
[Signature]  
[Signature]

Commissioners

*We concur, except as to the discussion and order relating to apportionment of the cost of maintaining the automatic protective devices. We would apportion such cost one-third to the city and two-thirds to the railroads.*

*George H. Grover  
Frederick B. Hebluff*