

Decision No. 82823

ORIGINAL

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Commission investigation to establish procedure for making allocations to local agencies under the "Crossing Protection Maintenance Fund" provided for in Public Utilities Code Section 1231.1, and to determine methods for ascertaining maintenance costs of automatic crossing protection.

Case No. 8249

Harold S. Lentz, Attorney at Law, for Southern Pacific Transportation Company and subsidiary companies; Thomas A. Lance, Attorney at Law, for The Atchison, Topeka and Santa Fe Railway Company; Richard W. Bridges, Attorney at Law, for The Western Pacific Railroad Company; and Marshall W. Vorkink, Attorney at Law, for Union Pacific Railroad Company; petitioners.

Mark L. Kermit, for County Engineers Association of California and Contra Costa County Public Works Department; protestant.

Thomas V. Tarbet, for Department of Public Utilities and Transportation, City of Los Angeles; Melvin R. Dykman, Joseph C. Easley, and O. J. Solander, Attorneys at Law, for State of California, Department of Public Works; James B. Robertson, for Marin County Department of Public Works; Kenneth C. Frank, for the League of California Cities; and Floyd W. Johnson, for the State Controller; interested parties. William C. Bricca, Attorney at Law, Ora A. Phillips, and William L. Oliver, for the Commission staff.

INTERIM OPINION

Decision No. 72225 dated March 28, 1967 in Case No. 8249 adopted the relative unit value system accepted by the American Association of Railroads as the most practical temporary method of computing the cost of maintaining the automatic protection equipment installed at railroad crossings and assigned a cost of \$30 per individual relative unit.

Decision No. 72225 described how the system works in the following paragraph.

"The manner of operation of the AAR system as outlined by its proponents and as established by the testimony and exhibits may be briefly summarized. Each component of a railroad signal system is assigned, by a committee of the Association of American Railroads, a relative unit value. These components include those utilized in automatic grade crossing protection as well as in block signal systems and other railroad signal devices. By adding the specific components utilized in any given facility one may arrive at a total number of units in such facility. A crossing protected with two automatic gates would be an example of such a facility. The railroad then determines the total maintenance cost of its entire signal system, or a division thereof, and by extraction of certain figures from its books and records, it also determines the total number of AAR units in its entire signal system, or division thereof. Thereafter by dividing the total number of AAR units into the total cost of maintenance thereof a cost to maintain a single unit is determined. That figure is then applied to the specific facility in question and after multiplying the number of units in the facility times the cost to maintain one unit the railroad arrives at the cost to maintain the specific facility over a given period of time. Each railroad in this proceeding developed its own cost to maintain and explained in some detail the bookkeeping entries that were utilized. Exhibit No. 6 contains the basic data used in accounts required by the Interstate Commerce Commission and this Commission. The railroad witnesses were careful to point out that the sums they used in developing the cost to maintain the signal system for purposes of this proceeding were selected conservatively. That is to say, if there was doubt as to the identification of a sum as a signal cost figure, it was excluded. Consequently, they claim that only readily identifiable cost figures are included in their exhibits."

Southern Pacific Transportation Company filed a petition to modify Decision No. 72225 on September 3, 1971. The petition alleges that Decision No. 72225 ordered that the cost of maintaining automatic grade crossing protection should

be determined by use of a unit system, and that a cost of \$30 per relative unit was to be used, based upon evidence of costs for a 12-month period ending June 30, 1965. The petition requested that the sum of \$30 allowed for each relative unit be adjusted to reflect the increased costs of maintenance which have occurred since 1965. Petitions identical to Southern Pacific Transportation Company's (SP) were filed on September 10, 1971 by The Western Pacific Railroad Company (WP), on September 13, 1971 by The Atchison, Topeka and Santa Fe Railway Company (Santa Fe), and on September 16, 1971 by the Union Pacific Railroad Company (UP). Conferences were held during 1971 and 1972 with representatives from the railroads, the Commission staff, and the State Department of Public Works (DPW). The parties could not agree and on November 1, 1972 the DPW filed a petition to modify Decision No. 72225. It alleged that the railroads have failed to initiate the study of maintenance costs at railroad crossings as ordered by Decision No. 72225 and requested that the allowance of \$30 per unit be deleted until the railroads initiate the study as ordered. The DPW also filed a complaint (Case No. 9465) on November 1, 1972 to allege that all four railroads were in contempt of the Commission for their failure to initiate the cost studies required by Ordering Paragraph 10 of Decision No. 72225.^{1/} The complaint was dismissed in Decision No. 82130 on November 13, 1973, and motion for rehearing was denied in Decision No. 82715 on April 9, 1974.

-
- 1/ "10. Each of the railroad company parties to this proceeding is directed within thirty days after the effective date of this order, to initiate studies, either individually or collectively, to determine the feasibility of maintaining accurate actual cost records of the maintenance cost of automatic grade crossing protection in California and the feasibility of developing a relative unit system method of determining such costs restricted to signal system components utilized in California by said railroad companies and based upon costs incurred in California by said railroad companies. The Commission staff and other parties hereto are directed to cooperate in all respects in the making of the studies herein ordered.

"The Commission shall in the future institute an investigation to receive the results of the studies and determine if any modification of this order is required."

A total of 18 days of hearing were held on Case No. 8249 starting on November 8, 1972 and terminating on February 27, 1973. The hearings were held in San Francisco before Examiner Fraser. Evidence was presented by the four petitioners, the DPW, and the Commission staff. Concurrent opening briefs were received on April 16, 1973 and concurrent closing briefs on May 17, 1973.

During the 1966 hearings on this proceeding all four railroads were using a train approach warning device at crossings designated as a "Grade Crossing Predictor". It was allocated a relative unit value of 8 as Unit No. 30 in Appendix B of Decision No. 72225. Current testimony reveals that petitioners are now installing a modified predictor which is defined and listed as a "Motion Sensor". It activates the warning and protective gates at a crossing while a train is in motion, and if the train stops before reaching the crossing the motion sensor allows the gates to rise and the bells and lights to stop functioning. The SP has been using the motion sensor for approximately three years and has 65 installed at crossings. A signal engineer from the SP testified that the estimated annual cost of maintaining a motion sensor is \$290 (Exhibit A-38) and that it should be added to the list of items in Appendix B of Decision No. 72225 with a valuation of 5 units. Another approach warning device currently utilized by applicant railroads, but not provided for in the AAR relative unit listings, is the "Motion Detector". Its principal components consist of a "Non-Coded Track Circuit" and a "Superimposed Circuit or Track Circuit" which are listed, respectively, as Units Nos. 16(a) and 16(b) and each is assigned a relative unit value of two. For clarification purposes in billing, the "Motion Detector" should be added to the list of items in Appendix B of Decision No. 72225 with a valuation of 4 units.

The SP introduced Exhibit A-40 to show that under the system of computing maintenance cost at railroad crossings adopted by the Commission in Decision No. 72225 the annual cost of maintaining a single relative unit increased from approximately \$30 on June 30, 1965 to \$50.02 on December 31, 1971 and to \$52.08 during 1972. The last total is based on escalating wage contracts without adjusting for

increased cost of materials. Exhibit A-43 of the WP shows that the cost of maintaining a single relative unit was \$43.09 on December 31, 1970 and is projected as \$51.17 for the calendar year 1973. Exhibit A-44 reveals that the Santa Fe paid \$41.63 for maintenance of each relative unit in 1970, increasing to \$44.27 in 1971 and \$46.79 in 1972. The UP paid \$47.83 cost per relative unit during 1971 and \$50.57 per unit during 1972 (Exhibit A-51). These sums were obtained by dividing the total of units at all crossings into the figure representing the cost of maintaining all crossings.

The DFW argued that the system presently used should be rejected in favor of a method based on the actual costs of maintaining each crossing. An electrician employed by the DFW testified that he maintains highway signal systems and is expected to keep accurate records of time spent and material used. He testified that he has inspected certain crossings of the WP and the SP, and it seems evident that accurate records of the time and materials involved in maintenance can be kept. A certified public accountant testified that it is impossible to audit the present system. Records are too sketchy and are not accurate. He advised that the railroads checked include out-of-state crossings in their California totals which would make some change if eliminated. He noted that a traffic control system is listed as a part of crossing protection in the WP records and its maintenance cost is allocated as a crossing expense. It has no relative unit value in the AAR table adopted by the Commission and neither does automatic train control devices, call-bell systems, call boxes, interlocker systems, or other items which are maintained as a part of crossing protection. He testified that most railroad crossing protective devices have been installed within the last five years and should cost less to maintain than units which have been operating for 15 or 20 years. Under the AAR system all like units have the same unit value regardless of how long they have been in operation. The witness advised further that where maintenance cost is based on an item such

as wages the maximum allowance is always selected. He concluded that all units listed in the table adopted by the prior decision herein should be reassessed and receive a current valuation based on conditions prevalent in California. He introduced an exhibit (A-58) which listed two methods recommended as a means of identifying the actual cost of maintaining grade crossing protection.

A staff engineer placed Exhibits A-59 and A-60 in evidence, which show statistics on crossing maintenance payments from 1966 through 1972; Exhibit A-59 suggests that the present system should be analyzed to determine whether the \$30 figure is realistic and the merit of the relative AAR unit values. It also proposes that the actual cost system be considered as a possible alternate for the unit value system.

All parties provided evidence and argument in rebuttal. The railroads argued that the paperwork involved in keeping precise records at each crossing would increase the cost of maintenance 5 percent or 10 percent without achieving exact accuracy. The railroads emphasized that although crossings outside of California were included in the totals on which maintenance is based, the expense of sustaining these crossings is trifling and if they are eliminated the cost per individual unit will probably increase (Exhibit A-64). The DPW made a formal request that a proposed report be filed. The railroads opposed on the basis that it would delay the issuance of a final decision.

Discussion

The petition of the DPW which requests that the Commission order the discontinuance of maintenance cost payments by public agencies until a study is completed by the railroads will be denied. Decision No. 72225 ordered all four railroads represented in this proceeding to initiate studies to determine the feasibility of an actual cost record method and of a California-developed relative unit system method. The railroads participated in two initial conferences and thereafter consistently argued the present system is best and further studies would accomplish nothing. Formal studies proceeded no further.

Decision No. 82130 dated November 13, 1973 in Case No. 9465 directed the Commission staff to undertake and complete a formal study by means of a Commission investigation. Further, on April 16, 1974, the Commission issued an Order Instituting Investigation further delineating the scope of the study and establishing Case No. 9710 to receive the results of the investigation. A conflict in the due date of the study which has arisen between Decision No. 82130 and Ordering Paragraph 5 in Case No. 9710 should be resolved in favor of the earlier date of November 13, 1974. The railroads have requested a major increase in the allowance authorized as the public share of the cost of maintaining railroad grade crossings. The parties who oppose the railroad petitions argue that the record shows the railroad totals include maintenance expense for some crossings outside the State of California and other costs unrelated to maintenance expense. The opposition further argues that the system presently used is defective because the point total is the exclusive basis for rating each crossing. An arbitrary total of points is assigned to each crossing depending on equipment installed, with no consideration for weather, location, or date of completion, which should logically affect maintenance expense. We believe it would be unsound to authorize the 40 percent raise in the assigned cost per individual relative unit requested by the railroads before the completion of the staff investigation on the merits of the relative unit value system and whether the \$30 unit figure is realistic. A holding granting the increase would presume certain results from the proposed study, which results actually cannot be determined until the study is completed and submitted, and further, it would forejudge the arguments the study is to resolve. The petition of the railroads should be denied at this time.

Findings

1. Decision No. 72225 dated March 28, 1967 adopted, on a temporary basis, the relative unit value system of determining maintenance costs at railroad crossings until further studies and experience advise whether a change should be made.

2. The decision allotted a unit total to each item of equipment used in the protection of railroad crossings. The sum of \$30 was found to be the annual cost of maintaining each individual unit in the system.

3. All of the equipment installed at railroad crossings with the total units allotted to each item is listed in a table attached to Decision No. 72225 as Appendix B.

4. Four railroads petitioned the Commission during September 1971 to request that the allowance per unit be raised to compensate for costs which have substantially increased since the date of the last decision.

5. No formal study has been made to determine whether the present system is the best method of determining the maintenance expense at individual railroad crossings.

6. Decision No. 82130 dated November 13, 1973 in Case No. 9465 ordered the Commission staff to undertake an investigation to determine whether the present system is less costly and more feasible than using actual maintenance cost at each crossing. On April 16, 1974, Case No. 9710 was created by Order Instituting Investigation to further delineate the scope of the study and to receive the results of the investigation when completed.

7. Decision No. 82130 directed the staff to prepare findings and to make a recommendation to the Commission within 12 months of the date of the order.

8. If the petition to raise the maintenance allowance is granted, it will nullify the proposed study by granting the raise the study is to determine the need for and would disregard the arguments the study is to resolve.

9. The petition of the railroads should be denied at this time.

10. The Department of Public Works of the State of California filed a petition on November 1, 1972 to request that all payments to the railroads for maintenance costs be deleted until the railroads complete the study of maintenance cost systems required by Ordering Paragraph 10 of Decision No. 72225.

11. The petition of the Department of Public Works should be denied.

12. The record does not justify the adoption of another system of determining costs at this time and all petitions should be denied until further studies are completed by the parties.

13. The "Motion Sensor", an improved model of an older predictor, has been used by the Southern Pacific Transportation Company for approximately three years with 65 units in operation.

14. The "Motion Sensor" should be added to the list of items in Appendix B of Decision No. 72225 with a valuation of 5 units.

15. A "Motion Detector" is an approach warning device currently being utilized by applicant railroads.

16. The category "Motion Detector" should be added to the list of items in Appendix B of Decision No. 72225 with a valuation of 4 units.

17. Ordering Paragraph 10 of Decision No. 72225 should be deleted. The study of methods of determining maintenance cost at railroad crossings to which it refers will be completed by the Commission staff.

18. The request for a proposed report should be denied.

Conclusions of Law

1. The petitions of the Department of Public Works should be denied.

2. The petition of the railroads should be denied.

3. Ordering Paragraph 10 of Decision No. 72225 should be deleted.

4. Ordering Paragraph 5 of Order Instituting Investigation in Case No. 9710 should be amended.

INTERIM ORDER

IT IS ORDERED that:

1. The petition of the Department of Public Works is denied.

2. The petitions of Southern Pacific Transportation Company, The Western Pacific Railroad Company, The Atchison, Topeka and Santa Fe

Railway Company, and the Union Pacific Railroad Company, filed during September 1971, are denied at this time.

3. The petition for a proposed report is denied.
4. Ordering Paragraph 10 of Decision No. 72225 is deleted.
5. Ordering Paragraph 5 of Order Instituting Investigation in Case No. 9710 dated April 16, 1974 is amended to read:

"5. The Commission staff will report its findings and recommendation in this investigation to the Commission within twelve months of Decision No. 82130 dated November 13, 1973."

6. The "Motion Sensor" and the "Motion Detector" shall be added to the list of items in Appendix B of Decision No. 72225 and shall be assigned a Relative Unit Value of five units and four units, respectively. The "Grade Crossing Predictor", the "Motion Sensor", and the "Motion Detector" shall be designated Units Nos. 30(a), 30(b), and 30(c), respectively.

The effective date of this order shall be twenty days after the date hereof.

Dated at Los Angeles, California, this 7th day of MAY, 1974.

William A. Quinn, Jr. President
[Signature]
[Signature] Commissioners

Commissioner Vernon L. Sturgeon, being necessarily absent, did not participate in the disposition of this proceeding.

Commissioner J. P. Vukasin, Jr., being necessarily absent, did not participate in the disposition of this proceeding.