

**ORIGINAL**

Decision No. 74618

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

FISHER BERKELEY CORPORATION,  
a California corporation,

Complainant,

vs.

PACIFIC TELEPHONE AND TELEGRAPH  
CO., a corporation,

Defendant.

Case No. 8662  
(Filed August 3, 1967)

In the Matter of the Suspension  
and Investigation on the  
Commission's own motion of  
tariffs covering the furnishing  
of Hospital Interphone System  
Service by The Pacific Telephone  
and Telegraph Company.

Case No. 8663  
(Filed August 4, 1967)

McKnight Brunn, Helzel, Leighton, Brunn &  
Falconer, for Fisher Berkeley Corporation,  
complainant.

Robert E. Michalski, for Pacific Telephone  
and Telegraph Company, defendant in Case

No. 8662 and respondent in Case No. 8663.

Warren R. Thorpe, for Valley Memorial  
Hospital, interested party.

George A. Amaroli, for the Commission staff.

# O P I N I O N

## Introduction

After due notice, fifteen days of hearing were held on a consolidated record on this complaint and tariff suspension before Examiner Carol T. Coffey. These matters were submitted for decision on March 22, 1968 after oral argument and the receipt of the transcript.

Complainant's Allegations

Fisher Berkeley Corporation (complainant), a manufacturer of hospital nurse-call systems, alleges, in summary, that:

1. The Hospital Interphone System offered by The Pacific Telephone and Telegraph Company (Pacific) by tariff sheets filed July 7, 1967, under Advice Letter No. 9576, is not a safe system;
2. The rates and charges prepared by Pacific are inadequate to cover the entire cost of manufacture, installation, and maintenance of the service without constituting an indirect burden on subscribers to other communication services offered by Pacific; and
3. No need for common carrier service providing hospital interphone systems exists within an area presently being served by a highly competitive private industry.

Complainant's Requests

Complainant requests that:

1. Pacific's hospital interphone system tariffs be suspended pending investigation of the proposed system, its safety and its true costs;
2. Pacific be required to make available to the Commission, complainant and the public all books and records required to determine costs of Pacific's proposed service; and
3. Pacific be required to make available to the Commission, complainant and the public all diagrams and information necessary to show how the Hospital Interphone System operates and in sufficient detail to determine where the system may deviate from the requirements for the safety of hospital patients to which private suppliers must adhere.

Defendant's Position

In its answer to the complaint, Pacific denies that complainant is entitled to the relief requested and asks that the complaint be dismissed.

Tariff Suspension History

On August 4, 1967, the Commission issued an Order of Suspension and Investigation, Case No. 8663, suspending through December 4, 1967, the effective date of the tariff sheets filed under Pacific's Advice Letter No. 9576. On November 30, 1967, by Decision No. 73417, these tariffs were suspended to and including June 4, 1968. On May 3, 1968, Pacific requested permanent suspension of the tariffs filed under Advice Letter No. 9576 and filed a similar substitute tariff under Advice Letter No. 9766 to permit continuation of these proceedings beyond the normal statutory limit. On May 28, 1968, by Decision No. 74186, the latter tariffs were suspended to and including September 30, 1968.

Safety Issue

Pacific's proposed Hospital Interphone System Service contains two provisions on which complainant relies for its allegations that the proposed service is unsafe. Under Special Condition 1, subparagraph d of Schedule Cal. P.U.C. No. 22-T, Pacific states that Hospital Interphone System equipment is not designed for use in oxygen tents or in other combustible or explosive atmospheres. The subparagraph also contains the following new "holds harmless" provision:

"The subscriber releases, indemnifies and holds harmless the Company from any and all loss, claims demands, suits, or other action, or any liability whatsoever, whether suffered, made, instituted or asserted by the subscriber or by any party or

person, for any personal injury to or death of any person or persons, for any loss, damage or destruction of any property, whether owned by the subscriber or others, caused or claimed to have been caused directly or indirectly by the installation, operation, failure to operate, maintenance, removal, presence, condition, location or use of said equipment so provided.

"The Company may require each subscriber to sign an agreement for the furnishing of such equipment on a form provided by the Company, as a condition precedent to the furnishing of such equipment. Where an agreement is not signed, the subscriber will be notified in writing of the conditions pertaining to the furnishing of such equipment."

From the foregoing tariff provisions complainant argues that the system is not safe and not usable in or near oxygen tents or other areas where gases, combustible or explosive materials or atmosphere may be present in normal hospital applications such as with heart and respiratory patients and in operating rooms and intensive care units. ✓

Pacific indicated its willingness to permit the connection of subscriber owned explosion-proof cords, or to provide these items if the subscriber desires, for nurse-call use in oxygen tents or in other combustible or explosive atmospheres. Witnesses with hospital operation experience indicated that oxygen tents are not presently in great use.

Further, complainant alleges that Pacific's system does not appear to be approved (listed) by Underwriters Laboratories, Inc. This record indicates that only the power packs of systems of complainant and Pacific are so listed and there is no evidence that any other portion of the systems are required to be listed.

Complainant alleged that Pacific uses a 90 volt ringing voltage which does not meet the requirements of Article 725 of the

National Electric Code of the National Fire Protection Association for Class 2 system voltages and that such usage is unsafe. The testimony of Pacific's witness that Article 725 does not apply to the Hospital Interphone System was contradicted by complainant's witness. The National Electric Code typically is adopted, modified, and enforced by local code enforcing authorities. Pacific stated that it will comply with all codes that apply to its system.

Witnesses testified that Pacific's proposed system does not introduce any higher voltage into the hospital than now exists. No proof was presented that the ringing voltage used is in fact dangerous. Pacific's witness testified he knew of no injury or damage resulting anywhere from such 90 volt ringing voltage.

The allegations that the use of power from Pacific's central office is hazardous are contrary to the fact of actual use of the subscriber's normal and emergency power.

Complainant was uncertain on the issue of safety. Much hearing time would have been saved if Pacific had promptly and timely made available for review by the parties appropriate drawings, as was requested by the complainant, rather than waiting until the last days of these hearings and the imminence of an order from the presiding officer.

This record does not persuade the Commission that Pacific's proposed system is hazardous, dangerous, or unsafe. We will adopt the suggestion of the staff that output currents from power supplies to patients' telephone sets should be limited by overcurrent protection to insure code compliance.

Cost and Pricing Issue

Pacific made an exhaustive showing in support of its proposed tariff rates and charges for its proposed Hospital Interphone System Service.

During this proceeding, due to Western Electric price changes and errors of inclusion and exclusion, the following charges and rates were presented by Pacific for consideration:

CALIFORNIA

CHARGES AND RATES

|  | <u>Installation Charge</u> | <u>Rate per Month</u> |
|--|----------------------------|-----------------------|
| (1) Common equipment for a maximum of 40 patients' telephones, including nurse's console with speaker-microphone         |                            |                       |
| Exhibit No. 1  | \$240.00                   | \$58.00               |
| Exhibit No. 2  | 240.00                     | 71.00                 |
| Exhibit No. 44   | 250.00                     | 72.00                 |
| (2) Each patient's telephone, including a 6 foot nurse-call cord arranged for use with a subscriber-provided signal lamp |                            |                       |
| Exhibit No. 1  | 32.00*                     | 5.00*                 |
| Exhibit No. 2  | 28.00*                     | 5.25*                 |
| Exhibit No. 37   | 20.00*                     | 4.20*                 |
| Exhibit No. 44   | 22.00*                     | 4.20*                 |
| (3) Additional nurse-call cord   |                            |                       |
| Each 6 foot cord   |                            |                       |
| Exhibit No. 1  | 7.00                       | .45                   |
| Exhibit No. 2  | 8.00                       | .70                   |
| Each 11 foot cord  |                            |                       |
| Exhibit No. 1  | 7.00                       | .65                   |
| Exhibit No. 2  | 8.00                       | .70                   |

\* The charge and rate above are in addition to the charges and rates for the station service of the class, type and grade ordered.

(continued)

CALIFORNIA  
CHARGES AND RATES  
(continued)

|   | <u>Install-</u><br><u>tion Charge</u> | <u>Rate per</u><br><u>Month</u> |
|---|---------------------------------------|---------------------------------|
| (4) Each cord for use in oxygen tent, up to 8 feet in length                        |                                       |                                 |
| Exhibit No. 45  | 7.00                                  | .45                             |
| (5) Each connection to a subscriber-provided emergency switch                       |                                       |                                 |
| Exhibit No. 1   | 11.00                                 | .40                             |
| (6) Each jack associated with a patient's telephone for use with DATA-PHONE Service |                                       |                                 |
| Exhibit No. 1   | 19.00                                 | -                               |
| (7) Nurse's console move and change   |                                       |                                 |
| Same room   |                                       |                                 |
| Exhibit No. 1   | 50.00                                 | -                               |
| Different room  |                                       |                                 |
| Exhibit No. 1   | 55.00                                 | -                               |
| (8) Patient's telephone move and change   |                                       |                                 |
| Same room   |                                       |                                 |
| Exhibit No. 1   | 30.00                                 | -                               |
| Exhibit No. 2   | 28.00                                 | -                               |
| Exhibit No. 37  | 20.00                                 | -                               |
| Exhibit No. 44  | 22.00                                 | -                               |
| Different room  |                                       |                                 |
| Exhibit No. 1   | 32.00                                 | -                               |
| Exhibit No. 2   | 28.00                                 | -                               |
| Exhibit No. 37  | 20.00                                 | -                               |
| Exhibit No. 44  | 22.00                                 | -                               |

Prior to the filing of Advice Letter No. 9576, Pacific submitted its proposed charges and rates to the Commission's staff for review and preliminary comment. Differences of pricing policies in California and those of other Bell System service areas may be deduced by comparing the foregoing charge and price development with the following tariff charges and rates for the nurse's console and the patient's telephone.

OUT-of-STATE

CHARGES AND RATES

|   | <u>Installation Charge</u> | <u>Rate Per Month</u> |
|---|----------------------------|-----------------------|
| Nurse's console:                                    |                            |                       |
| New York Telephone Company                          | \$500.00                   | \$90.00*              |
| Northwestern Bell Telephone Company                 | 100.00                     | 50.00*                |
| Southern Bell Telephone and Telegraph Company       | 100.00                     | 62.00*                |
| Southwestern Bell Telephone Company                 | 100.00                     | 80.00*                |
| The Mountain States Telephone and Telegraph Company | 100.00                     | 67.00*                |
| Patient's telephone:                                |                            |                       |
| New York Telephone Company                          | 15.00*                     | 4.75*                 |
| Northwestern Bell Telephone Company                 | 5.00*                      | 4.00*                 |
| Southern Bell Telephone and Telegraph Company       | 5.00*                      | 4.50*                 |
| Southwestern Bell Telephone Company                 | 5.00*                      | 4.00*                 |
| The Mountain States Telephone and Telegraph Company | -                          | 5.00*                 |

\* The charge and rate above are in addition to the charges and rates for the station service of the class, type and grade ordered.

In most areas throughout the country, in contrast to California and New York, the pricing policy appears to be to have



low installation charges for this service and to recoup through the monthly rates a relatively larger portion of the installation costs. The larger nurse's console installation charge in New York, relative to California, is offset in California by the larger installation charge for the more numerous patients' telephones.

In the opinion of Pacific's witness, the charges proposed by Pacific are fully compensatory, reasonable and proper. The witness prepared Exhibit No. 8, a computation of charges and rates on the basis of cost, in support of the charges and rates proposed in Exhibit No. 2. These are different from Exhibit No. 1, based on cost studies completed late in December 1966, because the material price for the Hospital Interphone System common equipment was estimated in February 1966 by A.T. & T. to be \$1,060. Pacific's witness testified that although the January 1967 issue of the Western Electric Company catalog confirmed this price, the catalog price was changed to \$1,355 in June 1967. Again, on October 1, 1967, the catalog price was increased to \$1,397. Two days prior to the first hearings in this proceeding on November 3, 1967, Pacific determined that there had been a change in Western Electric packaging in the June prices and that all material costs had not been included in its computations, the correct price for the common equipment now being \$1,459 to include a cover previously furnished for the above \$1,060 amount.

After reflecting the foregoing material cost changes as set forth in Exhibit No. 8, Exhibit No. 33 was introduced to amend

Exhibit No. 8 to eliminate duplication of the nurse calling cord and bedding clip and to give credit for the substitution of the patient's telephone for the 500 DR telephone set normally supplied in connection with exchange telephone service. Exhibit No. 37 corrects Exhibits Nos. 1 and 2 for the foregoing cost changes. Exhibit No. 44 shows the cost effect of the increase in State sales tax from 4 percent to 5 percent and reflects the latest available labor rates and supply expense.

For the computation of charges and rates on the basis of costs Pacific uses a standard form, designated Form GE-100, as presented in Exhibit No. 8. To develop appropriate installation charges and service rates telephone equipment engineers first determine what equipment would be used in the proposed service and make a list of material. Each unit on the material list is then priced by plant cost personnel, who refer to a price list or to the invoice supervisor at the distributing house. Quantities of new material, in some cases, and the amounts of reusable material are based on the judgment of the equipment engineer. The basis of Western Electric prices will be hereinafter reviewed.

Included in total material cost for the year 1967 is an allowance of 3.6 percent of material charges for supply expense and 2.3 percent <sup>1/</sup> for sales tax based on historical expenditure experience.

The following tabulation summarizes the development of hourly labor rates used in computations on the Form GE-100 in 1966 and 1967.

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1/ Sales tax is not paid on reissued materials.

HOURLY AVERAGE LABOR RATES

|  | <u>Installation</u> | <u>Maintenance</u> | <u>Removal</u> |
|--|---------------------|--------------------|----------------|
| 1. Productive hourly rates (includes vacations, holidays, sickness benefits, etc., plus a proportionate share of first-line supervisory expense) |                     |                    |                |
| Year 1966  | \$4.79              | \$4.79             | \$4.79         |
| Year 1967  | 5.01                | 5.01               | 5.01           |
| 2. Prorate of assignment work related to service orders  |                     |                    |                |
| Year 1966  | .80                 | .80                | .80            |
| Year 1967  | .84                 | .84                | .84            |
| 3. Prorate of Plant Supervision expenses above the first-line supervisory level  |                     |                    |                |
| Year 1966  | .51                 | .51                | .51            |
| Year 1967  | .55                 | .55                | .55            |
| 4. Small tool expenses   |                     |                    |                |
| Year 1966  | .22                 | .22                | .22            |
| Year 1967  | .25                 | .25                | .25            |
| 5. Prorate of general office expenses applicable to construction work  |                     |                    |                |
| Year 1966  | .35                 | .34                | -              |
| Year 1967  | .37                 | -                  | -              |
| 6. Social Security Taxes   |                     |                    |                |
| Year 1966  | .25                 | .25                | .25            |
| Year 1967  | .33                 | .32                | .33            |
| 7. Relief and Pensions   |                     |                    |                |
| Year 1966  | .74                 | .74                | .74            |
| Year 1967  | .78                 | .78                | .78            |
| 8. Rents and repairs of rented quarters and other miscellaneous, minor expenses of local plant administration                                    |                     |                    |                |
| Year 1966  | .27                 | .27                | .27            |
| Year 1967  | .31                 | .31                | .31            |
| 9. Prorate of motor vehicle expense  |                     |                    |                |
| Year 1966  | .47                 | .47                | .47            |
| Year 1967  | <u>.49</u>          | <u>.49</u>         | <u>.49</u>     |
| 10. Total loaded hourly rate   |                     |                    |                |
| Year 1966  | \$8.40              | \$8.39             | \$8.05         |
| Year 1967  | 8.93                | 8.55               | 8.56           |
| Year 1966 used   | 8.40                | 8.40               | 8.05           |
| Year 1967 used   | <u>8.95</u>         | <u>8.55</u>        | <u>8.55</u>    |

This tabulation raises many questions which are not answered in this record. Pacific's witness testified that the total productive hourly rate includes the hours of installing at all points on the wage scale, but the record does not indicate how the rate was actually developed. The explanation of the development of the prorates is equally vague and uninformative. While it was maintained that these estimates were based on "actual" amounts and hours, the witness did not know the actual factors used for prorating and he was unable to provide information as to the basis or reasonableness of the prorates. For instance, an unsatisfactory explanation was given as to why 34 cents was prorated to maintenance for general office expenses applicable to construction work for the year 1966 and none was prorated in 1967.

Installation, removal and maintenance expenses are calculated by applying the foregoing loaded hourly rates to telephone engineering "judgment based on experience" estimates of the average hours required for each function. No supporting data for the estimated hours were presented in this record.

Annual depreciation is determined by dividing the estimated total revenue-producing life of reusable material into the amount of reusable material, less salvage, and by dividing the estimated location life into the total nonrecoverable costs. No specific records were available to support these life estimates based on the judgment and experience of telephone field and staff people.

Total investment is calculated as the material used plus the labor and engineering required to install the equipment.

Depreciated investment is calculated as 81 percent of total investment, assuming that the company-wide average plant depreciation applies to the new plant as soon as it is installed.

The installation charge is determined by applying an arbitrary percentage (38.1 percent) to the total nonrecoverable costs of a service. These costs include nonreusable material, installation and engineering labor, removal costs and the cost of restoration of reusable material, with the junk salvage value of nonreusable material being deducted from the foregoing costs.

Estimated annual charges include allowances for maintenance, depreciation, administration (6.3 percent of total investment), return at 8 percent, taxes on income (14.7 percent of depreciated investment) and other taxes except social security (3.2 percent of total investment). The monthly rate is taken as one-twelfth of the annual charges after adjustment for the impact of the installation charge on the rate of return, depreciation and taxes. This record does not contain any convincing demonstration of the reasonableness of the percentage factors used in developing the monthly rates.

#### Western Electric Prices

After repeated direction from the presiding officer, Pacific very reluctantly made a direct showing in support of the prices charged by Western Electric Company for equipment used in providing the proposed Hospital Interphone System Service. Western Electric Company's Director of Pricing and Customer Contracting testified and presented 21 exhibits showing the manner of developing cost data and prices. The following summarizes the testimony on this subject.

Western Electric does not publish a descriptive catalog but does issue a Bell price list which is reviewed periodically to reflect changes in the cost structure, to change the level of sales and to change the level of profits.

In pricing individual items the pricing organization of Western Electric reviews standard, or shop, costs obtained from Western Electric's manufacturing accounting personnel and expense allocation information received from Western Electric's comptroller organization. The relationship of the item cost to that of similar items is evaluated to ensure that the price properly reflects Western Electric cost and is also reasonable to the customer.

Competition is given a great deal of weight in setting price, but the witness testified that since Western Electric's prices are usually so far under other prices competition is seldom a controlling factor. Where a competitive situation is found, design and manufacture of the item are reviewed to lower cost. All else failing, the other item being functionally the same and a quality product, consideration will be given to purchase of the item if a reliable supplier is available.

Although judgment may be exercised by the pricing organization in a number of ways in setting a particular price,

regulatory adjustments for Western Electric are not reflected in prices. Theoretically, prices may be set regardless of what costs may be. Prices are on occasion discussed with the operating telephone companies to determine if they can afford to pay the prices. The basic policy with respect to the prices to the affiliated telephone companies is to sell to them at the lowest level which recovers costs and a reasonable return on investment. Prices to independent companies are set by Western Electric at a level which enables its distributor<sup>2/</sup> to sell in line with the distributor's market.

The following tabulations show the components of cost which made up the three Western Electric prices for each of the two major components of the Hospital Interphone System Service, the nurse's console and the patient's telephone set. Since each of the components used in a final assembly has its own shop cost composed of labor, load and material, the material shown in the tabulation on the final assembly basis includes the labor and

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<sup>2/</sup> Western Electric's distributor is Graybar Electric Company. Western Electric has no financial interest in Graybar, no common corporate officers and no common directors. Graybar is owned by Graybar's employees. It is Western Electric's policy to have no distributor to independent telephone companies other than Graybar.

load of the components used in the final assembly. To indicate the total labor, load, and material component relationship, the total shop cost for October 1, 1967 is recast to group all labor, load and material components together.

Components of Price Nurse's Console<sup>a/</sup>  
(Including Common Cable)

| Price Component          | Pricing Date         |            |            |                      |
|--------------------------|----------------------|------------|------------|----------------------|
|                          | Final Assembly Basis |            |            | Total Assembly Basis |
|                          | 1-1-67               | 6-1-67     | 10-1-67    | 10-1-67              |
| Shop Cost:               |                      |            |            |                      |
| Labor                    | \$ 114.15            | \$ 155.98  | \$ 155.98  | \$ 363.06            |
| Load                     | 152.53               | 237.67     | 237.67     | 472.10               |
| Material <sup>b/</sup>   | 881.99               | 949.75     | 949.75     | 508.24               |
| Total                    | \$1,148.67           | \$1,343.40 | \$1,343.40 | \$1,343.40           |
| Overhead:                |                      |            |            |                      |
| Variation                | (31.03)              | 101.35     | 101.35     | 101.35               |
| Development Expense      | 169.95               | 244.49     | 244.49     | 244.49               |
| Merchandise Expense      | 151.28               | 193.68     | 193.68     | 193.68               |
| General Expense          | 50.04                | 66.61      | 66.61      | 66.61                |
| Federal Income Tax       | 94.96                | 86.74      | 111.28     | 111.28               |
| Profit                   | 127.88               | 129.63     | 166.89     | 166.89               |
| Price                    | 1,711.75             | 2,165.90   | 2,227.70   | 2,227.70             |
| Plus Miscellaneous Cable | 31.01                | 27.03      | 30.84      | 30.84                |
| Price                    | \$1,742.76           | \$2,192.93 | \$2,258.54 | \$2,258.54           |

<sup>a/</sup> Final assembly components of nurse's console are 1-console, 2-keys, 1-housing, 1-face plate, 1-handset, 1-loud speaker, 1-control unit, 1-set of parts, 1/2-cord, and 1-cabinet.

<sup>b/</sup> Material on final assembly basis includes labor and load of components used in final assembly.



Components of Price Patient's Telephone Set<sup>a/</sup>

| Price Component        | Pricing Date         |                |                |                | Total<br>Assembly<br>Basis |
|------------------------|----------------------|----------------|----------------|----------------|----------------------------|
|                        | Final Assembly Basis |                |                |                |                            |
|                        | 1-1-67               | 6-1-67         | 10-1-67        | 10-1-67        |                            |
| Shop Cost:             |                      |                |                |                |                            |
| Labor                  | \$ 4.33              | \$ 5.11        | \$ 5.11        | \$19.19        |                            |
| Load                   | 5.77                 | 6.57           | 6.57           | 24.26          |                            |
| Material <sup>b/</sup> | 54.41                | 53.30          | 53.30          | 21.53          |                            |
| Total                  | <u>\$64.51</u>       | <u>\$64.98</u> | <u>\$64.98</u> | <u>\$64.98</u> |                            |
| Overhead:              |                      |                |                |                |                            |
| Variation              | .58                  | 5.01           | 5.01           | 5.01           |                            |
| Development Expense    | 4.80                 | 5.81           | 5.81           | 5.81           |                            |
| Merchandise Expense    | 6.95                 | 7.13           | 7.13           | 7.13           |                            |
| General Expense        | 2.50                 | 2.69           | 2.69           | 2.69           |                            |
| Federal Income Tax     | 4.27                 | 4.86           | 5.54           | 5.54           |                            |
| Profit                 | 6.40                 | 6.93           | 7.94           | 7.94           |                            |
| Price                  | <u>\$90.01</u>       | <u>\$97.41</u> | <u>\$99.10</u> | <u>\$99.10</u> |                            |

<sup>a/</sup> Final assembly components of patient's telephone set are 1-telephone base, 1-hand telephone set, 1-circuit pack and 60 feet of cable.

<sup>b/</sup> Material in final assembly basis includes labor and load of components used in final assembly.

Within all of Western Electric manufacturing operations are approximately 800 cost centers, a cost center being a reasonable homogeneous manufacturing operation. For instance, although exchange and toll cable and switching equipment are manufactured in Omaha, these different product lines are in different cost centers. Thus, cost centers will vary according to location as well as products and product lines, reflecting various labor and loading conditions.

For a particular item, engineers lay out the manufacturing process and determine the types of facilities, tools, and various

methods that will be used in manufacturing the product. In addition the engineer specifies the materials and the quantities required for the production of an item.

The engineering data is then processed by a so-called wage incentive group which analyzes the manufacturing process to determine the number of standard hours of labor, called base hours, required to do the various operations.

A cost accounting organization develops and applies labor and load rates for the cost center specified by the engineer to the base hours developed by the wage incentive group. The labor cost in any particular cost center is the average labor rate for the cost center based on the mix of employees in that particular group, reflecting incentive pay, a portion of operative people not directly involved in production of the product and fringe benefits such as vacations, holidays, sickness payment and insurance. Load is the expense incurred in the manufacturing process other than labor, including manufacturing accounting operation, cost of personnel activities, rent, heat, light, depreciation and other manufacturing operation expenditures.

The remaining component of total shop cost, material, includes the cost to Western Electric of all the material required in the manufacturing operation to produce a unit.

Thus, the total shop cost is the predetermined cost of manufacturing based on engineering and accounting data for a period of time during which the cost will be used for accounting, pricing, control and material transfer purposes. These costs, set in advance and used by Western Electric over a period of time, have been revised

about every two years for the past ten years. Between scheduled revisions of shop costs unanticipated changes in wage levels, material costs and other expenses will cause the total actual manufacturing costs to differ from the product of units produced and related standard costs.

The difference between actual and predetermined cost for a given cost center and work location is called variation and is usually allocated to each item in a product line by applying a uniform percentage to the standard shop costs in the product line involved. However, in 1967, 22.7 percent of the shop cost was allocated as the variation for pricing purposes to the Trimline handset used in the patient's telephone set and 1.5 percent was used for all other station apparatus, or \$5,439,000 and \$2,350,000, respectively, to reflect Trimline start-up costs due to the manufacturing inefficiencies during the beginning of production.

Development expense represents the cost of developing and designing Western Electric products. It includes the work done by the Bell Telephone Laboratory, and the Princeton Research Center, where manufacturing process work is performed. It also includes equipment standardization work and some minor amounts for patents and license fees.

Merchandise expense includes the costs of handling of a product after it is manufactured for such functions as warehousing, distribution, ordering, pricing, billing, and customer order service.

General expense, or administrative expense, includes the cost of controllers, organization headquarters, the legal department,

general personnel departments and other administrative functions of Western Electric.

The foregoing overhead expenses are allocated to groups of products, called product lines, by developing a factor to be applied to the product shop cost. For instance the salaries of those engaged in pricing, a part of merchandising expense, is allocated to the specific product line upon which work was done, either directly if known or by judgment. Other salaries may be prorated upon various assumptions.

Income taxes and profit in the foregoing tabulations are related balancing figures, being the difference between price and the sum of shop cost and overhead expenses. It is Western Electric policy to obtain a relatively uniform rate of return to its investment which is allocated to product lines. Within a product line the profit percentage of cost is substantially constant. The level of profits is prescribed by the financial division of Western Electric. An example of a price change resulting from a change in the desired level of profit is shown in the foregoing tabulations of prices for June 1 and October 1, 1967.

#### Competition Issue

Complainant manufactures wired communications equipment for hospitals and extended care facilities such as nurse-call systems, doctor's in-out registers, administrative intercommunications equipment and wired paging systems. In addition communication systems are manufactured for use in supermarket, shopping centers, industry and institutions. Approximately 16 private manufacturers offer nurse-call systems to the public in California. Three or four of these

manufacturers are located in California. The industry national dollar sales were estimated to be in the order of \$100,000,000 annually.

The components and functions of one of complainant's nurse-call systems were demonstrated. Complainant criticized Pacific's system because it did not incorporate functions available from private industry for the past five years, such as a medical status circuit in the bedside units, priority through-call circuits, television and radio interconnection circuits and patient monitoring. Testimony by hospital administrative and planning personnel indicates that Pacific's system adequately meets their needs. The availability of Pacific's system on an installation charge and monthly rate basis lowers the hospital capital requirements in contrast with the typical sale of the private systems to hospitals through distributorships for lump sums. Although the private distributors do in some instances offer maintenance contracts, hospital administration and maintenance are simplified by Pacific's operation and maintenance of its system. All of the foregoing elements of competition appear to be reasonably within control by choice of the administrative staffs of hospitals and do not require regulatory action at this time by this Commission. However, the following factors of competition do appear to be issues which may require regulatory attention:

1. Public need of Hospital Interphone Service by Pacific.
2. Availability to the public of integrated public utility telephone service and nurse-call facilities.
3. Fairness and reasonableness of charges and rates proposed for Hospital Interphone Service by Pacific.

This Commission is aware of the increasing frequency with which, in regulatory proceedings, the issue is raised of competition

between public utility and nonregulated communication services. The provisions of the consent decree dated January 24, 1956, which settled the antitrust prosecution which sought judicial separation of the American Telephone and Telegraph Company and its wholly owned manufacturing subsidiary, Western Electric Co., Inc., (United States v. Western Electric Company, Inc. and American Telephone and Telegraph Company, Civil Action No. 17-49 (D.Ct. N.J.)) in effect placed on state and federal regulatory agencies the responsibility of determining the type, extent, and conditions of services the Bell System would be permitted to offer in competition with competing nonutility communication services.<sup>3/</sup>

Pacific's witness testified that the Hospital Interphone Service was developed to meet the communications requirements of hospitals which hospital administrators have indicated they need.

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3/ Part V of said consent decree orders:

"The defendant AT&T is enjoined and restrained from engaging, either directly, or indirectly through its subsidiaries other than Western and Western's subsidiaries, in any business other than the furnishing of common carrier communications services; provided, however, that this Section V shall not apply to (a) furnishing services or facilities for the plaintiff or any agency thereof, (b) experiments for the purpose of testing or developing new common carrier communications services, (c) furnishing circuits to other communications common carriers, (d) for a period of five (5) years from the date of this Final Judgment, leasing and maintaining facilities for private communications systems, the charges for which are not subject to public regulation, to persons who are lessees from defendants or their subsidiaries of such systems forty-five (45) days after the date of this Final Judgment, (e) directory advertising, (f) advice or assistance to other communications common carriers, or (g) business or services incidental to the furnishing by AT&T or such subsidiaries of common carrier communications services."

They want to provide basic telephone service by which the nurse and the patient can communicate with other stations on the hospital dial system as well as with telephones outside the hospital through Pacific's normal exchange service.

A hospital planning officer employed by the University of California at Davis testified that he believed a need exists in a modern hospital for the type of system herein being proposed by Pacific. The witness did not know of any privately manufactured nurse-call system which was integrated with the ability to call outside the hospital.

The chief engineer of Valley Memorial Hospital, Livermore, testified that the administration, director of nurses, and chief engineer of the hospital unanimously desired Pacific's Hospital Interphone Service for their hospital. A prime consideration appears to be the availability of installation and maintenance by Pacific.

Pacific's witness estimated public requirement for the first year to be between 5 and 24 systems, a system being a nurse-call console with a maximum of 40-patient stations.

A witness for complainant testified that an integrated system, using one piece of equipment rather than two, had market attraction. He further testified that if he had the right to attach an integrated system to Pacific's system he would investigate the market and determine if the private manufacture of an integrated system is economically sound.

Pacific proposes to permit subscriber provided emergency switches, lamp signals and nurse-call cords to be connected to its equipment. Since these proposals appear to be deviations from Pacific's filed Tariff Schedule 36-T which sets forth provisions

regarding ownership and use of instrumentalities on subscriber premises, including miscellaneous devices provided by the subscriber, Pacific was requested to supply a statement of its policy regarding the supply of miscellaneous devices by the subscriber, sometimes referred to as foreign attachments, and the duties, responsibilities and standards of Pacific's so-called foreign attachment committee. Pacific delayed until the time set for oral argument to respond to this request with a statement by counsel and the introduction into this record without any testimony, of a document, Exhibit No. 48, which purports to set forth the procedures for utility personnel to follow in compliance with tariffs covering ownership and use of foreign attachments.

The factual information in this record which relates to competitive prices has been related herein. Without the assumption that competition has largely affected the various proposed charges and rates it is difficult to rationalize or account for the spread of out-of-state charges and rates between themselves and in relation to the various proposed California charges and rates. Changes in prices, charges and rates have consistently moved so as to meet the California test of whether costs are fully recovered by charges and rates without burdens being created to be borne by the subscribers to other telephone services. This process culminated in studies in this proceeding which indicate that in less than a year Pacific's system would cost a hospital more than a comparable privately manufactured nurse-call system plus patient exchange service.



This record clearly demonstrates that Pacific's hospital interphone service is preferred by hospital personnel despite the availability of many attractive service and design features not available from Pacific. It appears that this preference is because Pacific's proposed service includes the installation, maintenance, and "renting" of equipment and because the integration of two telephone functions into one instrument results in reducing equipment in crowded patients' rooms. We believe that it is reasonable to anticipate that the non-Bell segment of the nurse-call industry can provide the public with installation, maintenance and deferred financing in the form of lease or lease-maintenance agreements. By the exercise of its authority this Commission can and will assure that Pacific's rates and charges return to Pacific its full costs of providing the service without transferral of part of these costs to its other services by averaging processes. This Commission is aware that the non-Bell nurse-call industry may be in substantial jeopardy if Pacific is permitted to render integrated hospital interphone service while this industry, not affiliated with the Bell System, is not permitted to connect integrated equipment to Pacific's public utility telephone system.

This Commission will permit Pacific to render hospital interphone service as hereinafter provided but will expect Pacific to permit connection to its system for exchange and toll service of integrated nurse-call systems manufactured or distributed by others than an affiliate of Pacific provided such connections would not be harmful to Pacific's public utility telephone system.

The Commission is aware of the immense potential for highly technical electronic developments to aid medical diagnosis, medical care, medical monitoring, and the general comfort and convenience of patients as well as similar demands in non-medical fields. In order to enable this Commission to be currently informed on the latest technical developments and the availability of equipment, we shall request Pacific to assist the Commission by advising it of all requests made to Pacific for connection to its exchange and toll system of communication systems relating to medical diagnosis, medical care, medical monitoring, and the general comfort and convenience of patients, including any nurse-call systems functionally integrated to provide patients with exchange and toll telephone services. If Pacific should not grant any request for connection with its system of such a medical communication system, Pacific will be requested to advise the Commission how the denied medical communication system would be a harmful interconnection of Pacific's public utility telephone system, or any other reasons for the denial.

#### Findings and Conclusions

We find that:

1. A public need exists for a nurse-call communications system integrated with public utility exchange and toll service.

2. Pacific's Hospital Interphone System Service is competitive with nurse-call systems offered to and used by the public, but which are not regulated by this Commission.

3. The Hospital Interphone System equipment is safe and usable in or near combustible or explosive gases or materials when in normal hospital use with explosion-proof cords.

4. The Hospital Interphone System equipment will be in conformity with the National Electric Code of the National Fire Protection Association if the power supply to patient's telephone sets is limited by overcurrent protection.

5. This record does not contain any convincing demonstration that the Hospital Interphone System equipment, or voltages existing therein, is unsafe, dangerous or hazardous to subscribers, users, or to the public.

6. For normal use in hospital and medical facilities the Hospital Interphone System equipment is as safe and free from hazard as existing exchange and nurse-call equipment.

7. Pacific has had no actual experience with its proposed Hospital Interphone System Service on which to base its estimates of location life, life of reusable material, installation expense, removal expense, or maintenance expense.

8. This record contains no demonstration of the reasonableness of estimates of average hours required to install, remove, or maintain a typical Hospital Interphone System in a hospital.

9. This record contains no convincing demonstration of the reasonableness of the arbitrary assumptions made by Pacific to develop the installation, maintenance, and removal hourly average labor rates used to support Hospital Interphone System Service charges and rates.

10. Western Electric unit prices are not based on actual manufacturing costs.

11. This record contains no demonstration of the reasonableness of estimates of base hours used by Western Electric to estimate the shop costs of components of Hospital Interphone System.

12. This record contains no demonstration of the reasonableness of the labor and load rates used by Western Electric in estimating the shop costs of components of the Hospital Interphone System.

13. This record contains no demonstration of the reasonableness of the allocation of overhead and desired profit used by Western Electric in determining the price of components of the Hospital Interphone System.

14. The Western Electric price of the patient's telephone set reflects an arbitrary assignment of variation cost which is relatively larger than that assigned to other station equipment.

15. Three different Western Electric prices for components of the Hospital Interphone System were listed between January 1, 1967, to October 1, 1967, inclusive.

16. Western Electric prices may be set and charged without reference to cost or by arbitrary modification of the allocation of manufacturing costs, reflecting undisclosed motives and policies of management.

17. Pacific made a voluminous showing in support of Western Electric prices for components of the Hospital Interphone System, but from this record it is not possible to determine if said prices are fair and reasonable in that they without discrimination recover manufacturing costs and a reasonable profit on investment.

18. Pacific had made a voluminous showing in support of its proposed charges and rates for Hospital Interphone System Service, but has not convincingly demonstrated the fairness and reasonableness of the proposed charges and rates for this proposed service.

19. The rates and charges set forth in Appendix A herein are appropriate for Hospital Interphone System Service for a period of one year pending accumulation of cost data based on actual experience.

We conclude that the tariffs filed under Advice Letter No. 9766 on May 3, 1968, should be permanently suspended and that Pacific should be permitted to render Hospital Interphone System Service on an individual contract basis under the conditions set forth in Appendix B to this order, for one year at the charges and rates set forth in Appendix A to this order, and thereafter at charges and rates based on current cost data for the installation under consideration. Further, we conclude that Pacific should keep the Commission advised of all requests to connect to its system medical communications systems.

O R D E R

IT IS ORDERED that:

1. On the effective date of this order the operation of the following tariff sheets of The Pacific Telephone and Telegraph Company are hereby permanently suspended:

SCHEDULE CA. P.U.C. NO. 22-T

|                    |     |
|--------------------|-----|
| 67th Revised Sheet | 1   |
| 3rd " "            | 2-A |
| 5th " "            | 37  |
| 3rd " "            | 48  |
| 3rd " "            | 49  |
| 3rd " "            | 50  |
| 1st " "            | 51  |
| 1st " "            | 52  |
| 1st " "            | 53  |

SCHEDULE CA. P.U.C. NO. 28-T

|                    |    |
|--------------------|----|
| 33rd Revised Sheet | 1  |
| 10th " "           | 5  |
| 1st " "            | 6E |
| 2nd " "            | 6F |

SCHEDULE CA. P.U.C. NO. 38-T

|                     |    |
|---------------------|----|
| 140th Revised Sheet | 1  |
| 13th " "            | 2  |
| 2nd " "             | 35 |

2. Within sixty days after the effective date of this order Pacific may file individual contracts with existing applicants to provide the offering of Hospital Interphone System Service. Such contracts shall become effective five days after filing with this Commission. Except as set forth herein such contracts shall be filed in accordance with the provisions set forth in General Order No. 96-A.

3. Contracts for such service filed after sixty days after the effective date of this order shall be filed in accordance with Section X, Paragraph A, of General Order No. 96-A and shall not become effective until authorization of this Commission is first obtained.

4. Any contract for Hospital Interphone System Service filed within one year after the effective date of this order shall contain rates and charges as set forth in Appendix A to this order, and the contractual conditions set forth in Appendix B to this order.

5. Contracts for Hospital Interphone System Service filed after one year after the effective date of this order shall contain rates and charges based on cost computations using then current cost data for the given installation, and the contractual conditions set forth in Appendix B to this order.

6. Pacific shall promptly advise this Commission in writing of each request made to it for connection to its system of any type of medical communication system, and if it deems it necessary to deny a request for such connection, it shall within 30 days of such denial advise this Commission in writing detailed reasons for such denial.

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

Dated at San Francisco, California, this 27<sup>th</sup> day of AUGUST, 1968.

William J. Lyons  
President

Augustin

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Commissioners  
Commissioner Fred P. Morrissey  
present but not voting.

Commissioner William M. Bennett, being necessarily absent, did not participate in the disposition of this proceeding.

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Appendix A

HOSPITAL INTERPHONE SYSTEM SERVICE

CHARGES AND RATES

I. New Installations

|  | <u>Instal-<br/>lation<br/>Charge</u> | <u>Rate<br/>Per<br/>Month</u> |
|--|--------------------------------------|-------------------------------|
| (1) Common equipment for a maximum of 40 patients' telephones, including nurse's console with speaker-microphone .....       | \$250.00                             | \$72.00                       |
| (2) Each patient's telephone, including a 6-foot nurse call cord arranged for use with a customer-provided signal lamp ..... | 22.00*                               | 4.20*                         |
| (3) Additional nurse call cord:  |                                      |                               |
| Each 6-foot cord .....   | 8.00                                 | .55                           |
| Each 11-foot cord .....  | 8.00                                 | .70                           |
| Each cord for use in oxygen tent, up to 8 feet in length .....   | 7.00                                 | .45                           |
| (4) Each connection to a customer provided emergency switch .....  | 11.00                                | .40                           |
| (5) Each jack associated with a patient's telephone for use with DATA-PHONE Service .....                                    | 19.00                                | -                             |

II. Moves and Changes from one Location to Another on the same Premises

|                                     | <u>Same<br/>Room</u> | <u>Different<br/>Room</u> |
|-------------------------------------|----------------------|---------------------------|
| (1) Nurse's Console, each .....     | \$ 50.00             | \$55.00                   |
| (2) Patient's Telephone, each ..... | 20.00                | 20.00                     |

\* The charge and rate above are in addition to the charges and rates for the station service of the class, type and grade ordered.



Appendix B

HOSPITAL INTERPHONE SYSTEM SERVICE

CONTRACTUAL CONDITIONS

- (1) Hospital Interphone System equipment is not designed for use in oxygen tents or in other combustible or explosive atmospheres. ✓

The customer releases, indemnifies and holds harmless the Utility from any and all loss, claims, demands, suits, or other action, or any liability whatsoever, whether suffered, made, instituted or asserted by the customer or by any other party or person, for any personal injury to or death of any person or persons, or for any loss, damage or destruction of any property, whether owned by the customer or others, caused or claimed to have been caused directly or indirectly by the installation, operation, failure to operate, maintenance, removal, presence, condition, location or use of said equipment in combustible or explosive atmospheres.

This provision is not intended to preclude the customer from using special nurse call cords in oxygen tents, when such cords are expressly designed for such use, and does not apply to these special nurse call cords when such cords are provided by the Utility. ✓

- (2) Customer-provided additional nurse call cords may be used with the patient's telephone. Such cords must be of the type that are compatible with the system. The switch contacts of such customer-provided cords used to activate the Hospital Interphone System shall be maintained electrically separated from any other possible function.
- (3) When installing the Hospital Interphone System, the Utility shall take necessary steps to insure that the installation of and the equipment used in this system will comply with the provisions of the National Electrical Code, the State of California Electrical Safety Orders, and all or any other state, county or local codes which are applicable to the installation of such equipment. ✓