9652
9637
9610
9600
9546
9360
9323
9271
9265
9177

DECISION NO. 85791 CASE NO. 9625 APP. NO.______

12103-782 5-75 5M OSP

kw

ORIGINAL

Decision No. 85731

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Investigation on the Commission's own motion into the promulgation of a General Order providing for the procedures and standards to be followed for the interconnection of customer-provided communications terminal equipment to the telecommunication facilities of intrastate telephone utilities.	Case No. 9625 (Filed October 24, 1973)
PHONETELE, INC., a corporation Complainant, vs. GENERAL TELEPHONE COMPANY OF CALIFORNIA, a corporation, Defendant.	Case No. 9177 (Filed January 15, 1971)
PHONETELE, INC., a corporation, Complainant, vs. THE PACIFIC TELEPHONE AND TELEGRAPH COMPANY, a corporation, Defendant.	Case No. 9265 (Filed August 26, 1971)

TELEPHONIC EQUIPMENT CORPORATION, a Corporation, Complainant, vs. PACIFIC TELEPHONE & TELEGRAPH COMPANY, a Corporation, Defendant.	Case No. 9271 (Filed September 17, 1971)
COM-U-TROL CORPORATION, Complainant, vs. GENERAL TELEPHONE COMPANY OF CALIFORNIA, Defendant.	Case No. 9323 (Filed February 8, 1972)
AMERICAN TELEPHONICS, Complainants, vs. PACIFIC TELEPHONE COMPANY OF CALIFORNIA, Defendant.	Case No. 9360 (Filed April 3, 1972)

ELECTRONIC CONCEPTS LABORATORIES CORP., a corporation, SOUTH BAY MORTGAGE CO., INC., a corporation, Complainants, vs. GENERAL TELEPHONE COMPANY OF CALIFORNIA, Defendant.	Case No. 9546 (Filed April 25, 1973)
AMERICAN PHONE SYSTEMS, INC., a Corporation, and BUSCOM SYSTEMS, INC., a Corporation, Complainants, vs. PACIFIC TELEPHONE AND TELEGRAPH CO., a Corporation, and GENERAL TELEPHONE COMPANY, a Corporation, Defendants.	Case No. 9600 (Filed August 10, 1973)
ASTRODATA, INC.; DAVID T. ARTSON; FRED SPEDER; HELEN GRAYSON; STAN SACKIN; G. B. PETERSON; RAY C. CHAFFEE; GLEN D. PAGE; JERRY GROTSKY; SUNNY GROTSKY; DON BURNS; DORETHA WATSON; MYREL MOSS; RUTH GALLAGHER; SHARON DOWD; STAN FARBER; BILL LEDO; LEE LANGLOIS; PETER PAPKE; ARDATH DUNCAN; LUCETTA MARR; LUCILLE MOSSE; VERLE BOGUE; LOU LAURIA; KATHY SOEN; EILEEN HOOD; ED JAFFE; and PETE MENZEL, Complainants, vs. PACIFIC TELEPHONE & TELEGRAPH COMPANY, Defendants.	Case No. 9610 (Filed September 11, 1973)

In the Matter of the Suspension and Investigation on the Commission's own motion of tariffs filed under The Pacific Telephone and Telegraph Company Advice Letter No. 11178 establishing utility and customer responsibility in the selection of protective connection devices.	Case No. 9637 (Filed December 4, 1973)
ARDEN FAIR THEATERS and ROBERT H. WILSON, dba AUTOMATION SALES, Complainants, vs. THE PACIFIC TELEPHONE AND TELEGRAPH COMPANY, a corporation, Defendant.	Case No. 9652 (Filed January 18, 1974)

(See Decision No. 84364 for appearances.)

O P I N I O N

With an ever-increasing number of complainants seeking special permission for direct connection of customer-provided equipment to the telecommunication network, this Commission on October 24, 1973, instituted an investigation into the promulgation of a General Order providing for procedures and standards to be followed for the interconnection of customer-provided communication terminal equipment to the facilities of the intrastate telecommunication network. As stated in the Order Instituting Investigation (OII) the Commission is seeking "an alternative procedure for the interconnection of customer-provided terminal equipment" to supplement present utility filed tariffs which require a utility-provided protective connecting arrangement (PCA).

Recognizing that the issues to be resolved were so complex that prolonged hearings might be required before the adoption of a General Order, the Commission on October 30, 1973 issued Decision No. 82075 to consider interim arrangements. That decision provided for respondents and/or interested parties to file within 15 days from the decision date written proposals for the Commission's consideration. It also recognized the need for consideration of the possible economic effects of interconnection. Written comments were received from a number of consumers, telecommunication equipment manufacturers and suppliers, utilities, and the Commission staff.

After hearing on November 19, 1973 before Commissioner J. P. Vukasin, Jr. and Examiner Burt E. Banks, Decision No. 82412 dated January 29, 1974 was issued. That decision recognized that (1) it would be premature to order interim certification arrangements during the pendency of this investigation; (2) present tariffs relating to the interconnection of customer-provided equipment should be continued in effect pending final orders herein; (3) any charges for coupling or other interconnection devices or arrangements collected by respondents pursuant to tariff should be accounted for separately and be made subject to refund; (4) respondents should give their highest priority to providing adequate coupling arrangements for all customer-provided terminal equipment which is presently or may reasonably be anticipated to be on the market in this State; and (5) it is necessary and desirable in the interests of orderly administration to consolidate all Commission cases involving basic interconnection issues into this investigation. The decision ordered that any customer who desired to utilize terminal equipment for which appropriate protective arrangements were not offered by filed tariffs may submit a written request therefor to the appropriate utility. If such requested arrangements were not provided by the

utility within 30 days after the request, the customer may temporarily connect his terminal equipment directly to the telecommunication network after having certified such equipment to the Commission in the manner provided for in the proposed General Order until a PCA is provided under filed tariffs.

Hearings on the proposed General Order were held May 20-24, July 15-19, July 22-26, August 26-30, November 12-15, and November 18-22, 1974 in San Francisco and Los Angeles.

In addition to over 30 public witnesses, there were 58 exhibits and more than 3,500 pages of transcript. At the hearing held November 21, 1974, the presiding examiner ruled that rebuttal testimony should be filed by December 23, 1974 with requests for cross-examination of rebuttal testimony to be received by January 13, 1975. If no request to cross-examine rebuttal testimony was received, briefs were to be filed within 60 days after notice from the examiner or 60 days after completion of any such cross-examination. Reply briefs were due 30 days thereafter. The record was closed as of February 24, 1975. Briefs were filed April 28, 1975 and reply briefs May 31, 1975.

The Commission on April 22, 1975 issued Interim Decision No. 84364 adopting General Order No. 138 (GO 138) providing for the certification of ancillary and data equipment to the telecommunication network. That decision also authorized the telephone utilities to file tariffs acceptable to the Commission concerning the use of access line test units in conjunction with customer-owned equipment and to file tariffs acceptable to the Commission establishing a utility conformance program as an alternative to certification.

Phonetele, Inc. and International Business Machines Inc. (IBM) filed timely petitions for rehearing staying Decision No. 84364. On May 20, 1975 the Phonetele and IBM potitions were denied by Decision No. 84461. Decision No. 84461 also rescinded the portion of Decision No. 84364 authorizing the filing of tariffs concerning access line testing units and the conformance program.

Issues

The initial issues confronting the Commission are whether the adoption of a program of certification of customer-provided equipment will have an adverse effect on the quality and dependability of the telecommunication network and whether the interconnection of customer-provided equipment to the telecommunication network will have an adverse economic impact on basic exchange rates.

As set forth in Decision No. 82075, additional issues to be investigated and resolved are:

(1) Whether GO 138 adopted in Decision No. 84364, providing for certification of customer-owned equipment is a feasible alternative to the use of utility-provided PCA's.

(2) Whether a certification program will have an economic impact on other utility subscribers.

(3) Whether the requirement for interconnection arrangements result in an adverse economic impact upon those offering customer-owned equipment.

The concern is not whether there should be interconnection of customer-provided equipment but what options should be made available and what rules should govern interconnection.

Discussion

The proponents of liberalized interconnection include the Commission staff, customer-provided equipment manufacturers and suppliers, and certification laboratories.

The proponents' position is that liberalized interconnection through a certification program will have a beneficial economic impact for California suppliers and users of customer-provided equipment by removing the requirement for "troublesome utility couplers" and by opening the innovative technology door. The proponents assert that

the utilities would benefit from a more liberalized interconnection policy by an increased and more efficient use of the telecommunication network. They stress that a vast amount of customer terminal equipment is already connected to private line networks in addition to substantial government telephone installations. They argue that telephone utilities providing terminal equipment to customers is the same as electric and gas utilities furnishing all electrical and gas appliances.

While the proponents of liberalized interconnection accurately point out the problems confronting the interconnect industry they fail to convince us of any similarity between the telephone and electric and gas utilities. The electric/gas utility responsibility for service ends with the delivery of units of energy to the customer for use with whatever appliance the customer chooses. The telecommunication network on the other hand utilizes equipment that under the subscriber's control transmits as well as receives electrical impulses. While there are some similarities, we believe this difference in the service responsibility of the utilities is significant and basic.

The telephone utilities are unanimous in their opposition to broadening the interconnection of customer-provided equipment. In their opposition they stress that the utility must meet the requirement to provide "end to end service", and that any increase in customer-provided equipment will hamper their ability to provide such service and ultimately result in a deterioration of service.

While in support of certification, the Computer and Business Equipment Manufacturers Association (CBEMA) and IBM argue that certification by independent registered engineers has serious drawbacks since such an engineer would look to a manufacturer for his fees and future contracts and cannot be assumed to be more honorable and objective than one who is an employee of a manufacturer. They assert that in the case of complex communication equipment no single

person is likely to have sufficient experience, expertise, or the equipment necessary to judge an entire system. Thus they urge a manufacturer certification be authorized.

CBEMA and IBM assert that their equipment is designed and manufactured to telephone utility specifications for direct interconnection and to date they have caused no harm to the network. Throughout the proceeding, CBEMA urged that the Commission withhold any action on GO 138 pending completion of similar Federal Communication Commission (FCC) proceedings whereby a nationwide policy for interconnections would be established.

IBM submits that nationally uniform technical standards and procedures are essential to obtaining a meaningful program of liberalized interconnection. It further argues that such a program will cause no harm to the telecommunication network and that manufacturers' certification will provide adequate protection for the telephone network.

All of the arguments presented have merit; however, we believe each of the parties has overreacted. GO 138 as adopted in D.84364 and with the changes adopted herein will permit the Commission to retain adequate control over interconnection thereby assuring no degradation of the service.

Technical Concerns

The utilities assert that the telecommunication network must be protected from:

1. Excessive voltages.
2. Longitudinal imbalance.
3. Excessive signal and noise levels.
4. Faulty network signaling.

The Commission staff points out that certification under GO 138 will not only protect the telecommunication network from these alleged technical harms but will also provide the general public with a reasonable alternative to the use of utility-provided PCA's. In addition the certification plan will resolve all but one of the complaints consolidated with this proceeding.

The utilities object to the certification program in GO 138 because of asserted technical deficiencies, as follows:

1. There is a lack of standards regarding installation, maintenance, repair, and refurbishment.
2. There is an absence of specific test standards.
3. Certification by an independent engineer is an unlawful delegation of Commission responsibility concerning the supervision of service provided by the utilities.
4. Certification by a registered engineer permits too much subjective judgment to the engineer without criteria on which to base such judgments.
5. There is inadequate time to protest certification.
6. The provisions for deviations are inadequate and vitiate the effectiveness of the General Order.

While the utilities' concern over the quality of maintenance and installation may have some merit, we agree with the testimony of many witnesses that nonutility personnel are oftentimes as skillful as are utility servicemen. In addition, as staff witness Dr. Bevc testified, manufacturers and suppliers have a strong competitive incentive to perform prompt maintenance as well as to produce high quality, reliable, durable equipment. Of equal importance from a technical standpoint of quality of manufacture, certain utility-provided equipment is purchased from the same manufacturer who will be submitting equipment for certification. The utilities counter this argument by pointing out that in the utility concept of end-to-end responsibility the equipment supplied to the utility

by outside manufacturers is made pursuant to utility specifications in addition to being installed and maintained by utility servicemen under strict uniform standards and practices.

Specific Test Standards

With regard to the absence of specific test standards, several parties argued that GO 138 should contain specific tests to aid the certifying engineer in determining whether the equipment to be certified meets the criteria specified. We agree that such tests should be included, not only as an aid to the certifying engineer, but also to reduce subsequent adversary proceedings to a minimum.

In the order which follows we will direct the staff to submit within 180 days its suggested test criteria to all parties to this proceeding for comment and adoption as part of GO 138.

Self Certification - Utility Certification

While not supporting the utility's position regarding certification, CBEMA recommends that GO 138 be amended to allow manufacturer self-certification. CBEMA and IBM have urged that qualified manufacturers be allowed to submit the required data by affidavit of their engineers--registered engineers if the Commission deems necessary--as an alternative to retaining an outside certifying engineer. They argue that manufacturers have the facilities and personnel and the chances of bad faith certification are no greater with employees than with independent engineers working for a fee and that as professional standards and penalties are the same for all registered engineers, an engineer employee of a manufacturer has the same obligation of honesty and integrity in his work as any other engineer. Additionally, they argue that the safeguard imposed by the process of preparing necessary certification papers and submitting complete documents to the Commission would apply similarly to all engineers participating in the certification program.

While the arguments in favor of self-certification are persuasive, we are of the opinion that the certification by an outside engineer is more objective than certification by an employee because of the absence of the bias inherent in employer-employee relationship.

CBEMA and IBM argue that GO 138 should apply to utility-provided equipment as well as customer-provided equipment. The staff in its closing brief states that the public policy favoring competition in business requires that the certification program be made applicable to all telecommunication equipment. However, in its reply brief, Pacific Telephone and Telegraph (PT&T) points out that staff witness Popenoe stated at page 8 of Exhibit 43 in Case No. 9265.

> "It is my belief that the normal telephone industry standards as well as the scrutiny Bell Laboratories or Automatic Electric Laboratories make of equipment adopted by the utility are the equivalent of certification. To require additional certification by an independent laboratory would in effect be double certification."

Our regulatory experience with this equipment over the years corroborates this testimony.

We agree with the logic of Mr. Popenoe and reject the argument that utility equipment must be certified.

Economic Impact

Of prime concern to the utilities regarding interconnection is the economic impact question. The proponents for interconnection objected vigorously to introduction of any evidence dealing with this issue. While objecting to this issue, each in effect stated that GO 138 is opposed by the utilities not for network protection but for protection of revenues. For example IBM in its opening brief states:

> "The real basis for the protests of the telephone companies is their fear that dispensing with the requirement of a utility-provided protective connecting arrangement—which intended to protect only against physical, not economic, harm--will affect not their network but their revenue."

There was no unanimity about what is meant by the term economic impact. However, we believe the issue was noted and accurately stated by the Supreme Court in Phonetele, Inc. v Public Utilities Commission (1974) 11 Cal 3d 125:

> "Nevertheless the free enterprise aspects involved in this proceeding merit brief comment. The manufacture of instruments like the Phonemaster, designed to enhance the utility and reduce the cost of telephone service, is a relatively new and, as all parties concede, a rapidly growing industry. Some of these devices conflict with the economic interests of the utilities to perform similar functions, and second, they result in a reduction of utility revenue because they restrict the number of telephone calls subscribers may make." (Emphasis added.)

If the observation of the Supreme Court is correct, it necessarily follows that a displacement of utility terminal equipment by competitive devices will directly affect the utilities' revenues and profits and may result in a shift of rate burden to other customers.

While the total revenue impact on the utilities is unknown and no studies were introduced to show what percentage of the terminal equipment market would be lost to competition, it would appear that increased interconnection and the resultant net revenue loss will require a corresponding increase in basic exchange rates or a realignment of other revenue sources. If there was no potential net revenue loss to the utility, as argued by the interconnect proponents, it would appear unlikely that the proponents would take such an active role and interest in this proceeding. Simply stated, the reverse of the loss of utility revenue would be an increase in the revenues of the proponents of interconnection.

CBEMA feels that adoption of GO 138 will have a beneficial economic impact for California users of customer-provided equipment, manufacturers, and suppliers by removing the requirement that customers use utility-provided equipment. They assert that the utilities failed to sustain their position that the use of customer-provided equipment will have an adverse impact on revenues.

The Commission staff believes that the utilities failed to show any economic impact due to certification other than "inconclusive arguments based on rambling references to revenue which seem to imply to the Commission that competition would diminish the prospect of collecting future revenues that might otherwise have been collected by the utility companies." The staff argues that the implementation of a certification program limited to ancillary and data equipment would have no significant adverse impact, technical or financial, upon utilities. Support for this conclusion comes from a staff statistical determination that combined billings for ancillary and data equipment are less than 1.5 percent of the utilities' total annual revenues.

The utilities oppose the easing of interconnection through certification alleging that a significant portion of toll revenue is allocated on the basis of exchange plant investment, including terminal equipment, and that there is no question but that the loss of station plant investment will decrease the allocation of toll revenue to the states, which is particularly crucial with respect to interstate toll revenue. They assert that the only reasonable solution to this dilemma lies in a change in toll separation procedures, and that the complex procedure of changing toll separation procedures is more involved than to "merely raise the trunk charges to a business enterprise to compensate" as suggested by one of the parties.

The principal evidence regarding the economic impact issue offered by the utilities concerned the magnitude of the contribution from vertical service. As defined by PT&T witness Thompson in Exhibit 46: "Vertical services include all items of terminal equipment and station services provided for the customer other than his basic exchange service, such as special telephone sets, extension stations, auxiliary equipment, Key telephone systems and private switching systems." No segregation of the various classes of equipment was made nor were any studies of the effects of competition made. From the lack of a study to show the economic effects of competition by the utilities, the proponents argue that the record does not support the conclusion that revenues would be reduced thereby causing an increase in rates. However, each proponent for interconnection and the staff acknowledge that with the liberalization of interconnection there will be more competition for terminal equipment. A loss of this equipment will result in a change in the utilities' revenue requirements which we believe could have an adverse effect on basic rates.

In its closing brief, CBEMA shows a dramatically declining market share for PT&T and a corresponding dramatic increase in the market share of customer-provided PBX systems.

Year End	Customer PBX's	Interconnect Market Share (%)	Pacific PBX's	Pacific Market Share (%)
1970	52	0.7	8,010	99.3
1971	316	3.7	8,297	96.3
1972	537	5.9	8,643	94.1
1973	954	9.6	9,028	90.4

From the foregoing it is apparent that the rate of market penetration by customer-provided PBX equipment has accelerated during the past five years.

PT&T witness Thompson (Exhibits 46 and 46A, Charts 5, 5A, 9, 9A) produced evidence of a revenue contribution of $152,000,000 from all categories of terminal equipment during calendar year 1973. Data provided by staff witness Popenoe sets forth an annual revenue loss to PT&T of $2,358,000 in the event of a 50 percent ancillary equipment market penetration. From this we conclude that a significant portion of the revenue contribution results from KTS and PBX systems which together with extension telephones and ancillary equipment constitute utility terminal equipment offerings.

Harm to the Telecommunication Network

The asserted purpose of utility provided PCAs is to protect the telecommunication network from harm. Section 13 of GO 138 defines harm as:

> "Harm consists of hazards to personnel, damage to utility equipment, and impairment of service to persons other than the user of the customer-provided equipment. Types of harm include, but shall not be limited to, voltages dangerous to personnel, destruction of or damage to utility equipment, induced noise or cross talk, incorrect dial pulsing, failure of supervision, false answer, incorrect billing, absence of voice band transmission path for call progress signals, and loss of capacity to answer an incoming call."

The proponents for liberalized interconnection would limit the definition of harm to those elements of possible actual danger or severe network degradation. The utilities on the other hand would classify harm as any service inconvenience or annoyance such as false answer, incorrect billing, misdialing, etc.

While the interconnect proponents feel that Section 13 is too restrictive and the utilities feel it is too broad, we believe it is adequate and that need not be changed.

Present Arrangements

At least one party to the proceeding other than the utilities recommended that PCAs should continue to be available even with the adoption of a certification program. (CBEMA witness, Wheeler, Tr. 1056-1059.) IBM testified that it designs and manufactures its equipment to meet the PCA offered by the telephone utilities. Support for this position can also be found in a report prepared by the Nation Academy of Sciences (NAS), for FCC in June 1969 to consider various questions related to common carrier/user interconnection problems including the technical feasibility of direct interconnection.[1/] This report concluded that "one of two approaches---used whether alone or in parallel in such proportions as non-technical factors might determine"---can supply the required degree of protection to the network: (1) Protective arrangements as required by the tariffs, and (2) a properly authorized program of standardization and properly enforced certification of equipment manufacture, installation, and maintenance.

In addition, as pointed out by CBEMA in its opening brief, "In some cases manufacturers have relied on the couplers and their criteria in designing their products, and such reliance should be honored where the couplers perform adequate service."

Since our objective is to provide the customer with a selection of options, we believe the choice of a utility-provided coupler should remain available. To do otherwise would deny to the subscriber the option of selecting noncertified devices.

Key Telephone Systems (KTS) and
Private Branch Exchange Systems (PBX)

During the proceeding all parties distinguished between KTS, PBX, extension telephones, and ancillary/data equipment. When we denied the motion to sever the economic impact issue, the staff

---

1/ This and other FCC reports were referred to by the parties throughout the proceeding.

introduced as Exhibits 3 and 4, memoranda from the Finance and Accounts and the Utilities Divisions which stated that the staff's position regarding economic impact related only to ancillary and data equipment.

In its opening brief at page 16 the staff states:

> "...in order to deal with the alleged financial impact issue to the extent possible within the scheduled hearing time, the Staff agreed to provide testimony and an exhibit responsive to the alleged financial impact limited to ancillary and data equipment only. This testimony was submitted on November 18, 1974 by Staff witness Popenoe (Exhibits 47, 48, and 50; Tr. 3034-3044; Tr. 3307-3357). Ancillary equipment includes automatic dialers and recording machines, toll diverters and restrictors."

and

> "...it is submitted that implementation of the proposed certification program limited to ancillary and data equipment would have insignificant, if any, economic impact upon utility company revenues. Moreover, implementation of their certification program as proposed would remove what appears to be a material factor in the subscriber's decision whether to purchase an item of ancillary equipment, since the cost of the utility-provided PCA frequently can be a material factor in the subscriber's decision whether to purchase an item of ancillary equipment."

Yet in its closing brief the staff makes the following argument in favor of certifying all customer-provided equipment:

> "The public policy favoring competition in business requires that the certification program be made applicable to all telecommunications equipment."

We are of the opinion that the record is not complete, that the arguments presented are not sufficiently persuasive upon which to make a determination for certification of PBX and KTS systems and extension telephones, and that further hearings are needed. In reaching this decision, we note that on April 19, 1974 the FCC in

Docket No. 20003 issued a notice of inquiry, "In the Matter of Economic Implications and Interrelationships Arising From Policies and Practices Relating to Customer Interconnection Jurisdiction Separations and Rule Structures" in which it stated that:

> ". . . Finally, we should state that, although the impetus for this inquiry is due in large part to our desire to obtain probative and meaningful evidence as to the economic effects of our customer interconnection, i.e., the trend toward increased use of customer-provided terminal and other facilities in connection with the switched telephone network, our inquiry is broader in scope and extends also to interrelated questions of the competitive supply of various specialized communications services, and alternative regulatory approaches to jurisdictional separations and rate structures, as hereinafter discussed."2/

2/ In addition, on November 7, 1975 in Docket No. 19528, the FCC established a registration program to permit the direct connection of all types of customer-provided station equipment, except PBX, KTS, and main and coin telephones, to the telecommunication network. Customer- or carrier-provided equipment attached to the network prior to April 1, 1976 is exempt from the rules and regulations of this program. Neither customer-provided nor carrier-provided station equipment may be connected to the network after April 1, 1976 without registration under the FCC program.

Either terminal equipment or protective circuitry may be registered. Utility-provided connecting arrangements may be used only if they are registered and used with nonregistered station equipment.

The FCC asked for comments by December 11, 1975 on the possibility of including PBX, KTS, and main telephones in the registration program.

The November order was modified by orders issued in February and March 1976. The February order extended the effective date of customer equipment registration to May 1, 1976 and utility equipment registration to January 1, 1977. The March orders provided for technical changes in the standards and also for extension of the registration program to PBX and key systems effective August 1, 1976. Appeals to the FCC orders are pending in Federal Court.

Phonetele

In Decision No. 80247 dated July 18, 1972 we ordered General to file a tariff schedule for utility-provided connection devices incorporating the same connection fees and monthly charges as those for PT&T's model 2ZAGM connecting device to be used with Phonetele's Phonemaster 1040. That decision also ordered the utilities to install utility-provided connecting devices on all existing unprotected Phonemaster 1040 installations and commence monthly charges on those and any other units upon which monthly charges had been deferred.

Phonetele's application for rehearing of Decision No. 80247 was denied by Decision No. 80696 dated October 31, 1972. In Decision No. 80765 dated November 21, 1972 we granted Phonetele's petition for an order staying Decision No. 80247 pending its application to the Supreme Court of the State of California for a writ of review. The effect of this action required the utilities to provide PCAs at no charge to subscribers who elected to obtain a Phonemaster 1040.

After its review, the Supreme Court annulled Decision No. 80247 stating:

> "The Commission's order requiring the utilities to supply the protective devices to Phonetele customers without charge (see fn. 1, ante) is continued in effect unless and until the Commission, after further proceedings, finds, in accordance with the standards set forth above, that the Phonemaster will have an adverse effect upon the telephone network, or until an appropriate certification program is adopted and implemented by the Commission." (Emphasis added.) (Phonetele, Inc. v Public Utilities Commission (1974) 11 C 3d 125, 132, 133.)

After hearing we have adopted and implemented GO 138. Accordingly, we will provide Phonetele 180 days to seek certification of devices now in service, after which the utilities may reinstate charges for PCAs in those instances where certification is not obtained.

Consolidated Matters

In the Order Instituting Investigation we noted the increasing number of complaints seeking special permission for the interconnection of customer-provided equipment to the telecommunication network and that each have been, or are presently anticipated to be, handled on an individual basis. In Decision No. 82412 we consolidated those matters with this investigation stating "it is pointless to continue any separate consideration of such matters, inasmuch as the issues which would have to be resolved are inextricably bound up in the general investigation itself. It is appropriate, therefore, to consolidate all such cases, which are listed in Appendix A attached hereto, into this investigation for resolution in a manner consistent with the final result thereof."

The adoption of GO 138 resolves the issues for the interconnection of ancillary and data equipment. Accordingly consolidated matters involving ancillary and data equipment may be dismissed.

Utility-Provided PCA

In Decision No. 82412 we concluded that pending the outcome of this investigation, present utility tariffs regarding PCAs were to remain in effect with the utilities to set up separate accounts for funds so collected and that such charges shall be subject to refund.

As discussed herein, CBEMA witness Wheeler recommended that protective connecting arrangements should continue to be made available even with the adoption of a certification program and IBM stated on the record that its equipment is manufactured to meet the utility-provided PCA. We recognize that the utility-provided PCA is one method of connecting customer equipment to the telecommunication network. Further, as we stated in Decision No. 84364, "...interconnection may still be made to the telecommunication network by use of a utility provided PCA". In addition, in Section 4.1, b of GO 138 the staff made provision for the certification of customer-owned PCAs.

The evidence supports continuing utility-provided PCAs. We believe that utility-provided protective connecting arrangements should continue to be made available, at the customer's option, as an alternative to certification and that funds collected for PCAs used in conjunction with ancillary and data equipment no longer need to be held subject to refund. To refund charges properly imposed during the pendency of this proceeding while recognizing the continuing need for PCA's would, in our opinion, be discriminatory.

Experience with Operation of General Order No. 138

Over six months has elapsed since adopting GO 138. During that time over 200 certificates have been presented for filing and registration. The Commission staff has received excellent cooperation from utilities, manufacturers, and certifying engineers in implementing the certification program.

In the application of GO 138, several minor deficiencies of both an administrative and technical nature have been brought to our attention. The review period under the interim order has been very valuable in providing experience in this regard. It appears appropriate at this time to provide for minor modifications to correct these various deficiencies. Aside from this, the order has worked well enough to permit it to become permanent.

Experience with the filing of certificates by certifying engineers reveals that the rules lack specificity in some respects. The lack of items specified to be included in the certificates filed has resulted in a lack of standardization between certificates filed

by different engineers. This has caused extra work for the Commission staff in reviewing the filings to determine if they are complete as well as delaying certification. To alleviate these problems, we will provide for revisions in Sections 2.2 and 2.3 of the General Order to clearly set forth the matters that should be examined and the material which should be included in the certificate. In addition, we will amend Section 2.4 to provide that the effectiveness of a certificate may be deferred pending completion of staff review. This will minimize the requirement to go through the cumbersome action of instituting an Order of Suspension and Investigation.

A number of certificates filed pertain to equipment which is not produced for commercial distribution. Some of this equipment is custom-built and some is of a prototype nature which is not being produced for interconnection to the telephone network. GO 138 was issued primarily to regulate the interconnection of industrially manufactured specialized equipment owned or provided by the utility's customer. Custom-built items performing auxiliary functions were not as a class considered to constitute a substantial proportion of this kind of equipment. On the other hand, the General Order does not rule out certification of custom-built equipment where such equipment can be shown to operate within the prescribed standards and where there is reasonable assurance that it will not be modified or otherwise tampered with. Thus, to provide for certification of individually designed custom-built or prototype equipment, we will amend GO 138 by adding a new Section 2.12. We would encourage, however, engineers who wish to file certificates for custom-designed equipment to discuss the merits of such equipment with the Commission staff prior to filing.

It has been brought to our attention that unauthorized persons have, in several instances, misused the telephone network by gaining access through call diverters that lack security features.

The subscribers owning these call diverters were faced with large bills for toll calls that they were not aware had been placed through their telephones. Obviously, subscribers are responsible for toll calls placed over their central office lines and billed to their number. While such equipment does not present a harm to the network in the technical sense, it nevertheless represents an undesirable feature. Even where the telephone company is able to collect from its subscriber for unauthorized toll calls, there arise many costs associated with investigating such calls and causing ill feeling toward the utility. We believe that it is consistent with the general objectives of GO 138 to provide restrictions on equipment which may possibly be fraudulently used by persons other than the subscriber. Accordingly, we will add a new section to provide that the certifying engineer should determine if the equipment is capable of access to the network by unauthorized persons for fraudulent calls, which will be billed to an unknowing subscriber. Since the number of instances of this misuse are relatively few, we will require that after October 1, 1976 equipment must be manufactured in such a way as to prevent fraudulent use. In the meantime, we will require that the customer be placed on notice of the possibility that unauthorized calls can be made through his own equipment with resulting bills for which he is responsible.

We will expect the telephone utilities to provide technical information to manufacturers regarding situations under which unauthorized access may be made to the toll network and methods of preventing such access. Where such information involves proprietary

or patented matters, appropriate licensing fees may be charged. In addition, utilities may charge for the actual cost of providing such information.

In addition, several minor technical revisions are needed. Section 5.4(c) will be changed to provide that a direct current test instead of an alternating current test may be made for leakage current. This will permit testing where interference control capacitors are included in the equipment. The revision will also provide for modified tests where the high voltage may damage solid state components in the equipment. The actual application of such modified tests should be reviewed with the Commission staff prior to filing a certificate.

Section 5.6(b) provides for signaling power level tests. Consistent with standard practices in the industry, this section is being amended to specify that measurements are based on a three-second average.

Section 5.9(e) provides for a 600 millisecond pause between succeeding digits in dial pulse signaling. The 600 millisecond is consistent with the nationwide dialing network but fails to operate in connection with some central offices. The 700 millisecond time we are specifying in the revised order should be adequate to operate with all regularly used central offices in the telephone network.

The dial impedance specified in Section 5.9(g) was based upon use of metallic contacts. With the use of semi-conductor dialing components, it is appropriate to amend this section to make it consistent with such components.

The power levels given in Section 5.10(a)(2) for tone address signaling represent objective levels. Actual practice in the industry does not conform to these levels. Accordingly, we will amend Section 5.10 to reflect current industry practices.

In Section 5.11 the current rules for on-hook impedance do not reflect the fact that some circuits may have more than one ringer connected to them. Accordingly, we will modify Section 5.11 to specify impedance in terms of ringers.

Phone-Mate's Petition

On February 2, 1976 Phone-Mate, Inc. filed a Petition for Modification of GO 138 to permit connection of its Model 2500 dialer to the network as an ancillary device. The Model 2500 dialer incorporates the features of an extension telephone as well as the automatic dialing feature. The Commission staff has been confronted with the question of how to classify this equipment. In view of this ambiguity, the staff has not accepted this instrument for certification. Phone-Mate's petition requests a further consideration of this matter. No opposition to Phone-Mate's petition has been filed with the Commission.

In addition to Phone-Mate's device, a number of other instruments of like nature have been presented for certification. In our view, if the primary purpose of the instrument is of an ancillary nature, it should be acceptable for registration even though it may contain features of an extension telephone. Accordingly, we will amend Section 1.3, Definitions, of GO 138, to accommodate this instrument.

Findings

1. Present utility tariffs require interconnection through utility-provided protective connecting arrangements.

2. There has been an increasing number of complaints seeking special permission for direct interconnection to the telecommunication network.

3. This OII was instituted to find alternative procedures for the interconnection of customer-provided terminal equipment to the telecommunication network and to offer options in lieu of utility-provided protective connecting arrangements.

4. More than one method of interconnection of customer-owned equipment to the telecommunications network should be made available to utility subscribers.

5. Certification of customer-provided equipment as provided in GO 138 is one workable alternative to PCAs.

6. The interconnection of customer-provided equipment through properly supervised programs and utility filed tariffs will not harm the telecommunication network.

7. Self-certification by equipment manufacturers should not be adopted.

8. GO 138 will provide the basis for telephone equipment manufacturers to compete with the telephone utilities.

9. Technical standards for the certification of telephone ancillary equipment will be retained by formal adoption of GO 138.

10. Specific test standards should be incorporated in GO 138 to provide the certifying engineer with criteria for certification.

11. Specific test standards will reduce the number of complaints and thereby the number of adversary proceedings.

12. The installation, maintenance, repair, and refurbishment standards contained in GO 138 are adequate.

13. The potential economic impact of customer-provided equipment on the telephone utilities' basic exchange service rates is an issue of vital concern to this Commission.

14. The Commission staff presentation on economic impact was limited to ancillary and data equipment.

15. A study of the potential loss of the utilities' terminal equipment market due to interconnection is necessary to resolve the economic impact issue.

16. Protective connecting arrangements presently offered under telephone utility filed tariffs should continue to be made available.

17. Utility-provided equipment is manufactured to the standards of the present telecommunication network and need not be certified.

18. Charges for utility-provided protective connecting arrangements collected during the pendency of this proceeding should not be refunded.

19. GO 138 resolves interconnection issues involving ancillary and data equipment consolidated with this investigation.

20. Consolidated matters involving ancillary and data equipment may be dismissed.

21. Experience with the administration of GO 138 indicates that certain administrative provisions require minor modification to assure uniformity in filing by certifying engineers.

22. Experience with the administration of GO 138 indicates that minor revisions of certain technical rules are required for clarification purposes and to make the rules consistent with actual operating conditions.

23. A requirement that all certified equipment manufactured on and after October 1, 1976 be constructed to positively preclude access by unauthorized persons through the customer equipment into the toll network is consistent with the purposes of GO 138 and is in the public interest.

24. Revision of the definition of ancillary equipment to include features of an extension telephone as an integral part of the ancillary equipment is consistent with the objectives of GO 138.

25. Revision of GO 138 as indicated in Finding 24 will substantially grant the relief requested by Phone-Mate, Inc. in its Petition for Modification.

26. GO 138 should be modified as provided by Appendix B, hereto, and should be made permanent.

Conclusions

1. Interconnection of customer-provided equipment through properly supervised programs and utility filed tariffs will not harm the telecommunication network.

2. More than one method of interconnection of customer-owned equipment to the telecommunication network should be made available to telephone utility subscribers.

3. GO 138 provides the basis for telephone equipment manufacturers to compete with the telephone utilities.

4. Further hearing on the economic impact of the potential loss of the utilities' terminal equipment market due to interconnection is necessary.

5. Utility-provided equipment is manufactured to the standards of the present telecommunication network and need not be certified.

6. Charges collected for utility-provided PCAs during the pendency of this proceeding should not be refunded.

7. GO 138, as modified by Appendix B hereto, is in the public interest and should be made permanent.

O R D E R

IT IS ORDERED that:

1. General Order No. 138, adopted in Decisions Nos. 84364 and 84461, is hereby modified by the changes set forth in Appendix B hereto, and such modified order is made permanent.

2. The Commission staff shall submit to the parties of record for comment, within one hundred eighty days, suggested test criteria standards to provide the certifying engineer with criteria for certification.

3. Respondent telephone utilities shall submit to the Commission within one hundred eighty days from the effective date of this order, a detailed study of the economic effect of certification of PBX systems, key systems, and extension telephones, after which hearing shall be held. The economic study shall show, among other things, the relative effects of interconnection under the current PCA methods and under a plan of certification of customer-owned equipment. Other parties may file such economic studies or information as they deem appropriate to this subject matter.

4. Revenue from utility-provided equipment held subject to refund pursuant to Decision No. 82412 shall not be refunded. Rates for utility-provided equipment shall no longer be collected subject to refund.

5. Cases set forth in Appendix A are dismissed without prejudice.

6. The Petition for Modification filed by Phone-Mate, Inc., on February 2, 1976, is granted to the extent provided for in the amended General Order No. 138 authorized herein.

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

Dated at San Francisco, California, this 11th day of MAY, 1976.

I will file a written dissent
Leonard Ross

I will file a written dissent
Robert Batinovich

President
William Symons Jr.
Vernon L. Sturgeon

Commissioners

APPENDIX A

A-Head Products v The Pacific Telephone and Telegraph Company; Case No. 9269, Decision No. 81123 decided March 13, 1973; petition for rehearing pending.

Com-u-trol Corporation v The General Telephone Company of California; Case No. 9323, Decision No. 80972 decided January 23, 1973 and Decision No. 81141 decided March 13, 1973; final decision pending.

Telephone Equipment Corporation v The Pacific Telephone and Telegraph Company; Case No. 9271, Decision No. 81339 decided May 8, 1973, petition for rehearing pending.

Electronic Concepts Laboratories v The General Telephone Company of California; Case No. 9456, Decision No. 81403 (denying temporary relief); matter awaiting hearing.

American Telephonics v The Pacific Telephone and Telegraph Company; Case No. 9360; matter submitted for decision.

American Phone Systems v The Pacific Telephone and Telegraph Company; Case No. 9600; matter awaiting hearing.

Astrodata v The Pacific Telephone and Telegraph Company; Case No. 9610; matter awaiting hearing.

Phonetele v General Telephone Company of California (Case No. 9177) and Phonetele v The Pacific Telephone and Telegraph Company (Case No. 9265); Decisions Nos. 80812 (December 12, 1972) and 80891 (December 21, 1972); petition for writ of review pending in the Supreme Court.

Case No. 9637, OSI (Advice Letter 11178).

Case No. 9652, Arden Fair Theaters v PT&T.

Modifications to General Order No. 138

The following sections of General Order No. 138 are amended as provided herein:

Sec. 1.3
2.2
2.3
2.4
2.12 (New)
2.13 (New)
5.4 c.
5.6 b.
5.9 e.
5.9 g. (1)
5.10 a. (2)
5.11 a.

Section 1.3 Definitions - The definition of Ancillary Equipment is changed as follows:

Ancillary Equipment - Line or Station Auxiliary Device Equipment fulfilling the needs of customer to improve the value of utility-provided telephone service in a way which is privately beneficial to him without causing harm to the network. This category includes but is not restricted to answering devices, automatic dialers, conferencing devices, call diverters, call restrictors, traffic monitoring equipment, and similar equipment connected with other customer-provided equipment or utility-provided equipment. Ancillary equipment does not include main or extension telephones; however, the features of an extension telephone may be included in ancillary equipment where such features are an integral part of the device and secondary to the functions provided by the ancillary device. In any such case, the ancillary equipment shall only be used on a central office line on which is connected a utility-provided instrument.

Add to Section 2.2

c. The certifying engineer shall examine the quality control methods in use by the manufacturer and include an adequate description of the quality control program with each certificate. Such examination must include a personal visit to the manufacturer's plant where the quality control is actually carried out. In cases where the manufacturer's production plant is located overseas, the equipment may be tested first to establish if it meets the prescribed standards and the quality control evaluation performance subsequent to testing. Where imported equipment is subject to a 100% acceptance test, such testing may be deemed to be a substitute for manufacturer's quality control testing if such acceptance tests assure full compliance with these rules.

Revised Section 2.3

2.3 Preparation and Filing of the Certificate.

a. Upon determining that customer-provided equipment complies in all respects with the standards established in these rules and that the production and quality control methods used in the manufacture of said equipment are adequate, the certifying engineer shall prepare a certificate in which he shall set forth the description of customer-provided equipment being certified, its mode of operation,

operating parameters, tolerances, tests performed, facilities and apparatus used in testing, statistical data on testing, and other relevant facts. The certificate shall state that the customer-provided equipment was found to comply with all requirements for direct electrical connection to the telecommunication network and shall bear the seal and signature of the certifying engineer. Equipment not found to comply with all requirements for direct electrical connection shall not be certified.

b. The certificate shall contain the following information:

(1) A description of the customer-provided equipment.

(2) A description of the mode of operation of the equipment.

(3) The number of units tested.

(4) The operating parameters and tolerances of the customer-provided equipment.

(5) The tests performed.

(6) Facilities and apparatus used in testing.

(7) Statistical data on testing.

(8) Results of required tests.

(9) Required Quality Control and Quality Assurance programs and anticipated objectives (Manufacturer's or Agent's strategy for handling critical and major defects).

(10) Attestation that the customer-provided device (power supply) meets the requirements of California Administrative Code, Title 24.

c. The following material shall be attached to the certificate:

(1) Photographs of the customer-provided equipment with cover(s) removed and with cover(s) in place.

(2) Schematic drawing(s) of the circuitry of the customer-provided equipment, including all power supply, interface, and protective circuitry. Proprietary control circuitry may be shown in block diagram form.

(3) Circuit description of the customer-provided equipment.

(4) Component list with a detailed description of each component.

(5) Installation and maintenance instructions.

(6) Operating instructions.

(7) Description of the maintenance strategy and approval of same.

(8) Whether the device is Class 1 or Class 2 equipment as defined in Section 5 of this General Order.

(9) A list of the authorized Service Centers or Repair Stations.

d. Every certificate of equipment compliance filed with the Commission shall show the name, title, address, and business affiliations of the person requesting certification, and a statement whether the manufacturer has provided the quality control data and access to the production plant to the certifying engineer. In instances where certification is made for a single item, as opposed to the type, this fact should be clearly stated on the certificate.

Revised Section 2.4

2.4 Registration, Acceptance and Suspension of Certificates by the Commission.

a. Certificates prepared by the certifying engineer shall be filed with the Commission which shall maintain a permanent record of such certificates. Copies of certificates shall be mailed to each telephone utility in California or to their designated representative. All photographs, drawings, and other bulky materials constituting part of the certificate shall be on a microfiche size 4" x 6" contained in an envelope attached to the certificate.

b. Upon the filing date of the certificate the Commission shall issue a registration number which shall be included on an equipment identification plate attached to the certified equipment. The registration shall become effective on the 30th day following the filing of the engineer's certificate with the Commission unless deferred or suspended by the Commission.

c. Where questions arise regarding the showing set forth in a certificate, the effective date of the certification may be deferred pending completion of review by the Commission staff.

d. The Commission may suspend the effective date of the certificate due to protest received before the 20th day following such filing or upon the Commission's own initiative. If the effective date of any certification is suspended, the Commission shall set the matter for hearing. The burden of proof that the customer-provided equipment complies in all respects with this General Order shall be on the party seeking the certificate.

New Section 2.12 added

2.12 Individually Designed Custom-Built or Prototype Equipment.

Custom-built or prototype equipment may be certified if such equipment can be shown to operate within the prescribed standards and if there is reasonable assurance that it will not be modified or otherwise tampered with. In such cases the certificate must clearly state that it applies only for the specific item and describe the circumstances and use that will be made of such equipment. There shall also be reasonable assurances on the part of the certifying engineer that the certified equipment is a final design prototype or custom-built item, that it is constructed in a manner that will not lend itself readily to disassembly and modification, and that if the equipment is altered, modified, or disassembled the PUC will be notified with the understanding that the certificate of such disassembled item will be cancelled.

New Section 2.13 added

2.13 Prevention of Fraudulent Use.

The certifying engineer in examining equipment, such as call diverters, which may be accessed from the telephone network, shall determine if in any mode of operation the equipment is capable of access by unauthorized persons who may subsequently utilize the equipment to make calls into the telephone network which will be billed to the subscriber who has such equipment connected. If such unauthorized access is possible purchasers of such equipment must be informed of their responsibility for any charges resulting from unauthorized access to the network

through their equipment. This notice must be given on a label attached to the equipment and in the instructions furnished with it. The certifying engineer shall include a statement in the certificate whether the equipment conforms with this requirement. All equipment manufactured on and after October 1, 1976, shall be constructed in such a manner as to positively prevent access to the toll network by unauthorized persons who may reach the customer-owned equipment on incoming lines. No certification may be made for equipment not meeting this requirement manufactured after such date.

Section 5.4 c. is changed as follows:

c. Leakage Current.

(1) The leakage current from the connecting device leads (connected together) to the power conductors (connected together) and from power conductors (connected together) to exposed surfaces of customer-provided equipment shall not exceed 2.5 milliampere rms when the applied test voltage is 1,500 volts rms at 60 hertz or 2,250 volts dc in cases where equipment includes capacitors connected to ground for interference control.

(2) The leakage current from the connecting device leads (connected together) to exposed surfaces must be less than 2.5 milliampere rms when the applied test voltage is 1,000 volts rms at 60 hertz.

The duration of the test must be no shorter than the time required for establishing a steady state.

(3) In cases where the above prescribed voltages could damage solid state component of the equipment appropriately modified tests may be substituted to establish compliance with insulation standards.

Section 5.6 b. - The second paragraph is changed as follows:

The power of the signal applied by the customer-provided equipment to the connecting device shall be specified for each type of equipment, but in no case shall it exceed one milliwatt when averaged over any 3-second interval.

Section 5.9 e. is changed as follows:

e. Interdigital Time.

For an automatically operated dialing function the time between the end of the last pulse of a given digit and the beginning of the first pulse of the succeeding digit shall be greater than 700 milliseconds and less than three seconds. The three-second restriction shall not apply if the digits concerned are separated by a dialing pause. Equipment with interdigital time of not less than 600 milliseconds may be used in instances where such delay is compatible with the utility's switching system.

Section 5.9 g.(1) is changed as follows:

(1) Nonpulsing State.

The dialed circuit pulsing impedance shall be substantially nonreactive and of such magnitude that the voltage drop across the device shall not exceed 5 volts for currents in the range between 20 and 120 milliampere. The dialer circuit shall be capable of carrying a continuous current of 200 milliampere dc and a surge of 330 milliampere for 1 second.

Section 5.10 a.(2) is replaced to read as follows:

The signal power levels shall be as follows:

Nominal level per frequency	-6 to -4 dbm
Minimum level per frequency	
Low Group	-10 dbm
High Group	-8 dbm
Maximum difference in levels between frequencies	4 db
Maximum level per frequency pair	+2 dbm

Section 5.11 a. Paragraphs (1), (2) and (3) are replaced by the following:

5.11 Impedance.

a. On-hook Impedance

(1) Customer-provided equipment shall have an on-hook impedance between tip and ring terminals of not less than the equivalent impedance of four ringers of 2,500 ohms resistance in series with a capacitance of 0.5 microfarad in the frequency range between 16 and 17 hertz.

(2) Customer-provided equipment shall have an impedance of not less than 20,000 ohms in the frequency range between 300 and 3,400 ohms.

(3) During the on-hook condition, the application of ringing signals shall not cause an answering device to draw more than 15 milliamperes of current prior to line seizure.

(4) Where the on-hook impedance of a device is less than the impedance for a single ringer as indicated in (1), above, there shall be included on a label or nameplate attached to the equipment and in instructions to the customer a statement of ringer equivalence.

C. 9625, et al
D. 85791

COMMISSIONERS BATINOVICH AND ROSS DISSENTING:

The Commission's decision is erroneous in several respects. Three particular subject matter areas deserve comment.

The discussion of refunds is entirely inadequate. The simple assertion that refunds would be discriminatory is patently false and cries out for analysis. Seven million dollars has been collected, subject to refund, during a proceeding that has taken 2-1/2 years to complete. Why not refunds at least for the period before G.O. 138?

The economic injury analysis is unconvincing. The loss of revenue argument has not been proven. (In fact, the Commission's decision today in Application No. 55527, the SG-1, demonstrates it can't be proven). But the decision fails to even address the greater question: is economic injury relevant?

Finally, the self-certification discussion is unsatisfactory. The decision states: "The arguments in favor of self-certification are persuasive", but declines to approve it, while rejecting certification for utility <u>provided</u> equipment. Does the Commission mean utility <u>manufactured</u> equipment? Or does it mean that certification is a function of the supplier, not the manufacturer?

Dated: May 11, 1976
San Francisco, CA

Robert Batinovich, Commissioner

Leonard Ross, Commissioner