## Chapter PSC 165

## STANDARDS FOR TELEPHONE SERVICE

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PSC 165.01 Equipment. Equipment and lines shall be so constructed as to eliminate cross-talk and noise which interfere with the satisfactory transmission of messages. Each utility shall maintain in proper condition the lines, instruments, and other equipment used on its system. A program of periodical inspections, in addition to regular trouble and maintenance work, shall be put into operation, which will insure proper maintenance for all lines and equipment.

Explanation of section PSC 165.01. Objectionable noise and poor transmission frequently occur where ground return circuits are in service or where the lines are in close proximity to power lines. Present-day construction tends to eliminate these conditions and should be followed. When lines are constructed or reconstructed, metallic circuits should be provided and properly transposed, except in cases where adequate service can be rendered by less costly construction. Common return circuits are classed as ground return circuits. The Commission recommends where ground return circuits are in use, that at least two pairs of switchboard cords per position be provided with repeating coils. Signaling equipment, switchboard cords, and other equipment requiring frequent attention should be kept in first class condition at all times; when the subscriber maintains his instruments and replaces the batteries the company should, through rules and supervision, require this equipment to be so maintained as to give proper service. When permanent repairs cannot be immediately effected, such temporary repairs should be made as are necessary to insure prompt resumption of service, pending the completion of the permanent work. Rural lines and equipment should have a fall inspection to forestall long and expensive winter trips. When Commission inspections show that the proper inspections, with records, have not been made, a definite program to be followed may be required.

PSC 165.02 Number of subscribers. The number of subscribers on any one circuit shall not be greater than that consistent with adequate service.

Explanation of section PSC 165.02. All new construction should comply with this requirement. Where existing circuits are overloaded, steps should be taken to rectify this condition by increasing the number of circuits. Under ordinary circumstances rural circuits should be limited to 10 subscribers, but in special cases a larger number may be justified. Service of a higher class should be rendered to subscribers on demand where reasonably possible but on a compensatory basis, and in cases where, for any reason, the service of a subscriber prevents the proper and necessary service of the other subscribers on a multiparty circuit, this subscriber may be required to take service of a different class.

PSC 165.03 Service between exchanges. When facilities for communication are furnished by one or more utilities between exchanges, the circuits connecting such exchanges shall be full metallic when traffic and service conditions make it necessary and no subscribers' instruments shall be regularly connected thereto. A utility may be

Explanation of section PSC 165.03. The intent of this rule is to make possible adequate and proper service between exchanges and also to subscribers whose connection to through lines may preclude proper service to this subscriber. Exemption to this rule: the connection of a subscriber to a through line, may be had upon proper showing that service is not reasonably available from a subscriber line. Where traffic is light, more than two exchanges may be connected to the same circuit.

required to furnish through service between exchanges alone or jointly with other utilities. In special cases, public or semipublic pay stations may be connected to through circuits until such time as the traffic warrants additional circuits.

PSC 165.04 Traffic studies; emergency service. Each exchange shall have sufficient switchboard capacity, a sufficient operating force, or sufficient automatic equipment, to handle the traffic at all times with reasonable facility. Traffic studies shall be made and recorded, of such extent and frequency, as to demonstrate to the commission that sufficient equipment is in use and that an adequate operating force is employed. Every utility operating an exchange shall provide uninterrupted emergency service if, at certain periods during the 24 hours, regular service is not available.

Explanation of section PSC 165.04. Traffic studies are important when a question arises as to the need of increased line, switchboard, and operating facilities, and for these reasons are required. The information needed for each particular exchange will be outlined at inspections. When the service is not continuous for the full day, proper arrangements are to be made for handling emergency calls during the off periods, by the use of positive alarms maintained in proper condition, and persons conveniently available so that there can be no question that the calls will be given prompt attention.

PSC 165.05 Exchanges, service. At exchanges serving 500 or more subscribers, 94 percent of the calls should be answered within 10 seconds. At all other regular exchanges, 90 percent of the calls should be answered within 10 seconds. At small exchanges operated in connection with other work, slower service may be adequate. Calls should be carefully supervised and disconnection made promptly after conversations are completed.

Explanation of section PSC 165.05. Exchanges operated in connection with other work should be provided with operators devoting their entire time to the switchboard whenever such a change is justified by the traffic and the revenue derived therefrom. Observation data may be required from time to time to show the speed of operation, supervision, etc.

PSC 165.06 Preventing service interruption. In order to prevent interruption to or impairment of service, arrangements shall be made for another source of lighting, fire protection, reserve operators, operators' headsets, ringing facilities, and for power and other reserve equipment where the same can be provided.

PSC 165.07 Rules for operators. Suitable rules and instructions shall be adopted by the utility and followed by the operators covering the phraseology and methods to be employed by the operators handling regular, special and toll calls.

Explanation of section PSC 165.07. Speed, accuracy, and reliability are of vital importance in telephone service, and a definite plan of operation is necessary to establish these qualities of service. Employees must not "listen in" except when it is an operating necessity. Operators should be instructed that under no circumstances should they repeat or divulge the nature of any local or long distance call. Care must be taken to avoid diverting business from a subscriber to his competitors or discriminating between subscribers in the attention given their calls.

PSC 165.08 Directories. Directories in which 5,000 or more subscribers are listed for one city shall be revised at least semiannually; all other directories shall be revised at least annually. Exemptions from these requirements may be allowed, upon application, indicated in the explanatory note. The name of the utility, exchanges covered

by the directory, and month and year issued shall appear on the front cover. All directories shall contain such instructions and rules governing local and toll service and methods of payment as may be necessary to inform subscribers of their rights and obligations. A copy of each new directory shall be filed with the commission and a copy furnished to each subscriber.

Explanation of section PSC 165.08. In cases where changes to be made are so few as not to cause serious inconvenience to the public, it may be unnecessary to revise the directory within the time limit. A new issue would probably not be required if the new listings and numbers changed do not exceed approximately 15% of the listings for the period. In some instances it may be desirable to make revisions more frequently than specified in the rule, because it is a matter which should be determined by the number of changes which have occurred. It is suggested that the telephone utility's space on the front cover be the most prominent, and the size of the directory should, for uniformity, be 6 by 9 inches. It may be found desirable to publish the Commission's rules, suggestions as to enunciation, time and method of payment for service, and other information, varying with different exchanges, which will tend to promote business efficiency and precision of operation. The Commission has issued a booklet on rules and suggestions to be inserted in telephone directories, and one of these booklets will be sent to any telephone utility upon application. Each telephone utility is required by law (196.19) to file its rates, rules, and regulations with the Commission. No original or revised rates, rules or practices shall be placed in effect without the written approval of the commission.

PSC 165.09 Interruptions, records. Reasonable efforts shall be made to eliminate interruptions and acute irregularities in service, and to correct them promptly when they occur. Records shall be kept of all complaints, interruptions, or acute irregularities in the service, showing the date and time at which the same occurred or is reported, the nature of the trouble, the date and time cleared, final disposition and identification of employee making final disposition.

Explanation of section PSC 165.09. Trouble records are useful in locating defects in equipment and operation, since in this way chronic troubles may be distinguished from occasional complaints due to exceptional circumstances. These records should be kept on file for at least 2 years. Sample trouble records will be sent to any telephone utility upon application. Subscribers should be given instructions as to how and to whom they should report difficulties. The person designated to receive complaints should be readily accessible and should have time and authority to properly remedy trouble. Employees should be encouraged to report all complaints, irregularities and criticisms. Patrons should be requested to report trouble in sufficient detail so that an accurate record of the nature of the complaint can be made. The cooperation of the public in promoting good service should be encouraged in the matter of tree trimming, in refraining from monopolizing party lines by establishing a definite time limit in minutes, and in other matters not wholly within the control of the utility.

PSC 165.10 Central office records. All telephone utilities operating central offices shall have at their principal office adequate records or maps showing location, type, use and ownership of all rural and connecting lines as well as records or maps showing location and ownership of local exchange lines, cables and conduits.

Explanation of section PSC 165.10. It is suggested that this record be kept with considerable detail, such as maps showing local circuits, location of subscribers, cable terminals, etc. The more complete this property record is within reasonable limits, the more useful it will be to the utility as well as the commission in case a detailed examination of the property is needed.

PSC 165.11 Toll service, suggestions. No specific rules with regard to the adequacy of toll service are prescribed at this time but the following suggestions are offered. Toll service should be properly routed so as to be most efficient and to secure justice to the telephone utilities, where more than one utility is involved. In general, each

utility should test all toll circuits early each morning and after storms in order that trouble may be promptly eliminated. On joint lines or when one utility uses the lines of another utility, trouble on circuits should be promptly reported to the utility responsible for the maintenance of the line. Accurate and convenient timing devices should be installed in order that toll charges may be correctly computed. The tone of voice used by operators is very important, particularly for toll service. They should cultivate not only a distinct articulation but low tones and pleasing voice. This would aid materially in giving satisfactory service at highest efficiency. A record of the condition of long distance circuits entering each exchange should be kept for the convenience of the utilities in properly maintaining their lines, and for the commission's information.