

APPLICATION OF TARIFF

A. GENERAL

Terminal equipment, protective circuitry and communications systems may be connected to facilities of the Telephone Company.

B. REGULATIONS

1. Basis of Connection to the Telecommunications Network

a. Registered Terminal Equipment, Registered Protective Circuitry and Registered Communications Systems

Registered terminal equipment, registered protective circuitry, and registered communications systems may be directly connected at the customer's premises to the telecommunications network, subject to Part 68 of the Federal Communications Commission's Rules and Regulations, Section 1 preceding, and the following:

- (1) All combinations of registered equipment and associated nonregistered terminal equipment, including but not limited to wiring, shall be installed, operated and maintained so that the requirements of Part 68 of the Federal Communications Commission's Rules and Regulations are continually satisfied.

The Telephone Company may discontinue service or impose other remedies as provided for in Part 68 of the Federal Communications Commission's Rules and Regulations for failure to comply with these provisions.

- (2) The customer shall not connect registered equipment to a Telephone Company line if:

- (a) the ringer equivalence of such equipment in combination with the total ringer equivalence or other equipment connected to the same line exceeds the allowable maximum of five or as otherwise determined by the Telephone Company, or
- (b) the ringer type is not a ringer type designated by the Telephone Company as suitable for that particular line.

- (3) Unless a specific waiver has been granted by the Federal Communications Commission or except as otherwise provided in (4) following, all connections of registered equipment to services furnished by the Telephone Company shall be made through Telephone Company provided standard jacks; or, in the case of registered communications systems, through standard jacks wired in other than a standard manner, when such nonstandard wiring of the jack is agreed to by the Telephone Company.

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B. REGULATIONS (Cont'd)

1. Basis of Connection to the Telecommunications Network (Cont'd)

a. Registered Terminal Equipment, Registered Protective Circuitry and Registered Communications Systems (Cont'd)

- (4) The requirement for the use of standard jacks as described in (3) preceding is waived for registered equipment which is located in hazardous or inaccessible locations.

b. Premises Wiring Associated with Registered Communications Systems

- (1) Premises wiring is wiring which connects separately housed equipment entities or system components to one another, or wiring which connects an equipment entity or system component with the network interface, located at the customer's premises and not within an equipment housing.
- (2) Fully-protected premises wiring is premises wiring which is:
- (a) No greater than 25 feet in length (measured linearly between the points where it leaves equipment or connector housings) and registered as a component of and/supplied to the user with the registered terminal equipment or protective circuitry with which it is to be used.
- (b) A cord which complies with (a) preceding and which is extended once by a registered extension cord. Extension cords may be used as a substitute for wiring which for safety reasons should be affixed to or embedded in a building's structure.
- (c) Wiring located in an equipment room with restricted access, provided that this wiring remains exposed for inspection and is not concealed or embedded in the building's structure, and that it conforms to Part 68 of the Federal Communications Commissions Rules and Regulations.
- (d) Electrically behind registered equipment, system components or protective circuitry which assure that electrical contact between the wiring and commercial power wiring or earth ground will not result in hazardous voltages or excessive longitudinal imbalance at the network interface.
- (3) Protected premises wiring requiring acceptance testing for imbalance is premises wiring which is electrically behind registered equipment, system components or circuitry which assure that electrical contact between the wiring and commercial power wiring will not result in hazardous voltages at the network interface.

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CONNECTION OF TERMINAL EQUIPMENT,
PROTECTIVE CIRCUITRY AND COMMUNICATIONS SYSTEMS

B. REGULATIONS (Cont'd)

1. Basis of Connection to the Telecommunications Network (Cont'd)

b. Premises Wiring Associated with Registered Communications Systems
(Cont'd)

- (4) Unprotected premises wiring is all other premises wiring.
- (5) Customers who intend to connect premises wiring other than fully-protected premises wiring to the telephone network shall give advance notice to the Telephone Company, in accordance with the procedures specified in Part 68 of the Federal Communications Commission's Rules and Regulations or as otherwise authorized by the Federal Communications Commission.
- (6) The Telephone Company may invoke extraordinary procedures specified in Part 68 of the Federal Communications Commission's Rules and Regulations where one or more of the following conditions are present:
 - (a) Information provided in the supervisor's affidavit gives reason to believe that a violation of Part 68 of the Federal Communications Commission's Rules and Regulations is likely.
 - (b) A failure has occurred during acceptance testing for imbalance.
 - (c) Harm has occurred, and there is reason to believe that this harm was a result of wiring operations performed under Part 68 of the Federal Communications Commission's Rules and Regulations.

In addition, the Telephone Company may monitor or participate in acceptance testing for imbalance, or may inspect other than fully-protected premises wiring installations as set forth in Part 68 of the Federal Communications Commission's Rules and Regulations.

CONNECTION OF TERMINAL EQUIPMENT,
PROTECTIVE CIRCUITRY AND COMMUNICATIONS SYSTEMS

B. REGULATIONS (Cont'd)

1. Basis of Connection to the Telecommunications Network (Cont'd)

c. Connections of Grandfathered Terminal Equipment and Grandfathered
Communications Systems (Cont'd)

(1) Direct Connections

(a) Grandfathered Terminal Equipment

Grandfathered terminal equipment may remain directly connected and be moved and reconnected to the telecommunications network for the life of the equipment without registration and may be modified only in accordance with Part 68 of the Federal Communications Commission's Rules and Regulations, subject to the following:

- I. the customer shall notify the Telephone Company when such grandfathered terminal equipment is to be connected and shall notify the Telephone Company when such grandfathered terminal equipment is to be permanently disconnected; such notification shall include a description of the equipment including the manufacturer's name, model number, and type of equipment;
- II. all such connections are made through Telephone Company provided standard jacks or are otherwise connected by the Telephone Company; and
- III. all such connections shall comply with the minimum protection criteria set forth in B.1.e. following.

(b) Grandfathered Communications Systems

- I. Grandfathered communications systems may remain directly connected and be moved and reconnected to the telecommunications network for the life of the equipment without registration, and may be modified only in accordance with Part 68 of the Federal Communications Commission's Rules and Regulations, subject to the following:

the customer shall notify the Telephone Company when such communications systems are to be connected and shall notify the Telephone Company when such communications systems are to be permanently disconnected; such notification shall include a description of the equipment including the manufacturer's name, model number, and type of equipment;

CONNECTION OF TERMINAL EQUIPMENT,
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B. REGULATIONS (Cont'd)

1. Basis of Connection to the Telecommunications Network (Cont'd)

c. Connections of Grandfathered Terminal Equipment and Grandfathered
Communications Systems (Cont'd)

(1) Direct Connections (Cont'd)

(b) Grandfathered Communications Systems (Cont'd)

I. (Cont'd)

all such connections are made through Telephone Company
provided standard jacks or are otherwise connected by the
Telephone Company;

all such connections shall comply with the minimum
protection criteria set forth in B.1.e. following;

premises wiring shall conform to Part 68 of the Federal
Communications Commission's Rules and Regulations;

no changes may be made to equipment so connected except by
the manufacturer thereof, or a duly authorized agent of the
manufacturer.

II. Additions to grandfathered communications systems may be
made without registration of any additional equipment
involved if:

equipment so added is being reconnected, i.e., was
previously directly connected prior to January 1, 1980, in
accordance with Telephone Company tariffs; and such
additions comply with the provisions of (b) I. preceding.

III. Additions of registered equipment to grandfathered
communications systems are subject to B.1.a. preceding.

(c) Customer-provided terminal equipment and customer-provided
communications systems connected to the telecommunications
network via customer-provided grandfathered protective
circuitry are subject to the provisions of (a) and (b)
preceding.

CONNECTION OF TERMINAL EQUIPMENT,
PROTECTIVE CIRCUITRY AND COMMUNICATIONS SYSTEMS

B. REGULATIONS (Cont'd)

1. Basis of Connection to the Telecommunications Network (Cont'd)

d. Connections Through Connecting Arrangements Provided by the Telephone Company

(1) General Conditions

- (a) Grandfathered connections of terminal equipment and grandfathered connections of communications systems made in accordance with B.1.d.(2) and (3) respectively following may remain connected and be moved and reconnected for the life of the equipment and may be modified only in accordance with Part 68 of the Federal Communications Commission's Rules and Regulations. Connecting arrangements used for such moves and reconnections will continue to be provided by the Telephone Company subject to their availability, at the rates and charges specified in Section 3.
- (b) Subject to availability, the Telephone Company will provide grandfathered connecting arrangements in accordance with the provisions of Section 3 of this tariff to accommodate the connection of devices or system components, i.e., equipment-to-equipment connections, connected at the customer's premises to Telephone Company provided host terminal equipment or communications systems provided the host terminal equipment or communications system is grandfathered and is not a model or specific system type which has been registered. A grandfathered connecting arrangement provided under the provisions of Section 3 may remain connected for the life of the arrangement's connection to its associated Telephone Company provided host terminal equipment or communications system. All reconnections of such connecting arrangements will be subject to the requirements specified above. Grandfathered connecting arrangements are provided at the rates and charges specified in Section 3.
- (c) Customer-provided communications systems which are not subject to Part 68 of the Federal Communications Commission's Rules and Regulations may be connected in accordance with B.1.j. following. Telephone Company provided connecting arrangements are furnished for the connection of such systems at the rates and charges specified in Section 3 of this tariff.

CONNECTION OF TERMINAL EQUIPMENT,
PROTECTIVE CIRCUITRY AND COMMUNICATIONS SYSTEMS

B. REGULATIONS (Cont'd)

1. Basis of Connection to the Telecommunications Network (Cont'd)

d. Connections Through Connecting Arrangements Provided by the Telephone Company (Cont'd)

(1) General Conditions (Cont'd)

- (d) Customer-provided terminal equipment may be connected in accordance with B.1.k. following, to services of the Telephone Company specifically exempted from the Federal Communications Commission's Registration Program. Telephone Company provided connecting arrangements are furnished for the connection of such equipment at the rates and charges specified in Section 3 of this tariff.
- (e) Separate, identifiable and discrete protective circuitry, i.e., connecting arrangements used for grandfathered connections of communications systems to the telecommunications network may be removed or replaced with apparatus of lesser protective function, provided that any equipment, and any premises wiring whose classification is changed thereby, conforms to Part 68 of the Federal Communications Commission's Rules and Regulations.
- (f) Network control signaling shall be performed by equipment furnished, installed and maintained by the Telephone Company, except that:
 - I. customer-provided tone-type address signaling is permissible through a Telephone Company provided connecting arrangement.
 - II. signaling functions may be performed by customer-provided Conforming Answering Devices specified in g. following.

(2) Grandfathered Connections of Terminal Equipment

(a) Data Terminal Equipment

Subject to the provisions of (1)(a) and (d) preceding, customer-provided data terminal equipment, including telephotograph equipment, may be connected at the customer's premises to the telecommunications network through a network control signaling unit and a data access arrangement provided by the Telephone Company in accordance with the following:

CONNECTION OF TERMINAL EQUIPMENT,
PROTECTIVE CIRCUITRY AND COMMUNICATIONS SYSTEMS

B. REGULATIONS (Cont'd)

1. Basis of Connection to the Telecommunications Network (Cont'd)

d. Connections Through Connecting Arrangements Provided by the Telephone Company (Cont'd)

(2) Grandfathered Connections of Terminal Equipment (Cont'd)

(a) Data Terminal Equipment (Cont'd)

I. The customer shall furnish the equipment which performs the functions of:

conditioning the data signals generated by the customer-provided terminal equipment to signals suitable for transmission by means of Telephone Company services, and

conditioning signals transmitted by means of Telephone Company services to data signals suitable for reception by customer-provided equipment.

II. The customer-provided data terminal equipment must comply with the minimum protection criteria specified in B.1.e. following:

Where a data access arrangement is furnished in connection with customer-provided terminal equipment and such terminal equipment is used for both voice and data communication, the data access arrangement may be used to connect the customer-provided terminal equipment for voice communication.

(b) Voice Terminal Equipment

Subject to the provisions of (1)(a) and (d) preceding, customer-provided voice terminal equipment may be connected at the customer's premises to the telecommunications network in accordance with the following:

I. The connection shall be made through a network control signaling unit and a connecting arrangement furnished by the Telephone Company. In accordance with B.1.f. and g. following, a connecting arrangement is not required for the connection of attested equipment or conforming answering devices.

II. Where a data access arrangement is furnished in connection with customer-provided terminal equipment and such terminal equipment is used for both voice and data communication, the data access arrangement may be used to connect the customer-provided terminal equipment for voice communications.

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CONNECTION OF TERMINAL EQUIPMENT,
PROTECTIVE CIRCUITRY AND COMMUNICATIONS SYSTEMS

B. REGULATIONS (Cont'd)

1. Basis of Connection to the Telecommunications Network (Cont'd)

d. Connection Through Connecting Arrangements Provided by the Telephone Company (Cont'd)

(2) Grandfathered Connections of Terminal Equipment (Cont'd)

(b) Voice Terminal Equipment (Cont'd)

III. The customer-provided voice terminal equipment must comply with the minimum protection criteria specified in B.1.e. following.

(3) Grandfathered Connections of Communications Systems

Subject to the provisions of (1)(a) preceding, customer-provided communications systems may be connected at the customer's premises to telecommunications services in accordance with the following:

(a) The connection shall be through a network control signaling unit and connecting arrangement furnished by the Telephone Company.

(b) The provisions relating to minimum protection criteria set forth in B.1.e. following shall apply to the connection of customer-provided communications systems.

e. Minimum Protection Criteria for Electrical Connections

(1) To prevent excessive noise and crosstalk in the network, it is necessary that the power of the signal at the central office not exceed 12dB below one milliwatt when averaged over any three-second interval. To insure that this limit is not exceeded, the power of the signal which may be applied by the customer-provided equipment to the network interface located on the customer's premises will be specified for each customer location but in no case shall it exceed one milliwatt.

(2) To protect other services, it is necessary that the signal which is applied by the customer-provided equipment to the Telephone Company network interface located on the customer's premises meet the following limits.

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CONNECTION OF TERMINAL EQUIPMENT,
PROTECTIVE CIRCUITRY AND COMMUNICATIONS SYSTEMS

B. REGULATIONS (Cont'd)

1. Basis of Connection to the Telecommunications Network (Cont'd)

e. Minimum Protection Criteria for Electrical Connections (Cont'd)

(2) (Cont'd)

- (a) The power in the band from 3,995 Hertz to 4,005 Hertz shall be at least 18dB below the power of the signal as specified in (1) preceding.
- (b) The power in the band from 4,005 Hertz to 10,000 Hertz shall not exceed 16dB below one milliwatt.
- (c) The power in the band from 10,000 Hertz to 25,000 Hertz shall not exceed 24dB below one milliwatt.
- (d) The power in the band from 25,000 Hertz to 40,000 Hertz shall not exceed 36dB below one milliwatt.
- (e) The power in the band above 40,000 Hertz shall not exceed 50dB below one milliwatt.

- (3) To prevent the interruption or disconnection of a call, or interference with network control signaling, it is necessary that the signal applied by the customer-provided equipment to the Telephone Company interface located on the customer's premises at no time have energy solely in the 2450 to 2750 Hertz band. If signal power is in the 2450 to 2750 Hertz band, it must not exceed the power present at the same time in the 800 to 2450 Hertz band.

f. Attested Equipment Connected Prior to July 1, 1980

- (1) Until July 1, 1980, customer-provided headsets and nonpowered conferencing equipment which meet the standards and procedures set forth by the Telephone Company in technical references for attested equipment may be connected at the customer's premises to the telecommunications network in accordance with (a) through (e) following. Such equipment may remain connected and be moved and reconnected in accordance therewith for the life of the equipment unless subsequently modified.
 - (a) The connection shall be made through an interface connection, e.g., headset jack, provided by the Telephone Company.

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CONNECTION OF TERMINAL EQUIPMENT,
PROTECTIVE CIRCUITRY AND COMMUNICATIONS SYSTEMS

B. REGULATIONS (Cont'd)

1. Basis of Connection to the Telecommunications Network (Cont'd)

f. Attested Equipment Connected Prior to July 1, 1980 (Cont'd)

(1) (Cont'd)

- (b) The identification number issued by the Telephone Company to the manufacturer or supplier must appear on each unit of attested equipment utilized.
- (c) Customers must notify the Telephone Company of their intention to connect attested equipment. Such notification must include the identification number of the equipment and the location at which that equipment is to be used.
- (d) Attested equipment may not:
 - I. Be connected to a source of electrical power which is external to the telecommunications network.
 - II. Be grounded.
 - III. Perform any network control signaling functions prior to and including the establishment of the intended transmission path.
 - IV. Have amplification in the transmission path, other than single-ended terminal devices with the maximum gain limited so that the output power meets the minimum protection criteria set forth in B.1.e. preceding.
 - V. Use wiring external to such equipment that is permanently affixed at the site of the installation other than portable connections compatible with the interface connections provided by the Telephone Company.
- (e) Attested equipment must comply with the minimum protection criteria set forth in B.1.e. preceding.

- (2) In the event attested equipment bearing an identification number does not meet the requirements set forth by the Telephone Company in its technical references, the customer using such attested equipment shall either disconnect the equipment from the Telephone Company service or arrange for connection of the equipment in accordance with B.1.a. preceding.

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CONNECTION OF TERMINAL EQUIPMENT,
PROTECTIVE CIRCUITRY AND COMMUNICATIONS SYSTEMS

B. REGULATIONS (Cont'd)

1. Basis of Connection to the Telecommunications Network (Cont'd)

g. Conforming Answering Devices Connected Prior to July 1, 1979

(1) Customer-provided conforming answering devices which meet the standards and procedures set forth by the Telephone Company in technical references for conforming answering devices and which were connected at the customer's premises to the telecommunications network prior to July 1, 1979 in accordance with (a) through (e) following, may remain connected and be moved and reconnected in accordance therewith for the life of the equipment, unless subsequently modified.

(a) Customers shall notify the Telephone Company of their intention to connect conforming answering devices. Such notification shall include the location at which the conforming answering device is to be used as well as its conformance number.

(b) The conforming answering device shall only be connected by means of a jack or jack arrangement provided by the Telephone Company.

(c) The conforming answering device shall be operated and maintained in accordance with those instructions furnished with such conforming answering device as required by the Telephone Company's technical reference for conforming answering devices.

(d) Conforming Answering Devices may not:

I. be used to transmit or receive data signals; and (T)

(D)

III. be used to originate calls.

(e) The conforming answering device shall comply with the minimum protection criteria set forth B.1.e. preceding.

(2) In the event that an answering device bearing a conformance number does not meet the requirements of the Telephone Company's technical reference for conforming answering devices, the customer using such answering device shall either disconnect the device from the Telephone Company service or arrange for connection of the device in accordance with B.1.a. preceding.

CONNECTION OF TERMINAL EQUIPMENT,
PROTECTIVE CIRCUITRY AND COMMUNICATIONS SYSTEMS

B. REGULATIONS (Cont'd)

1. Basis of Connection to the Telecommunications Network (Cont'd)

h. Accessories

Customer-provided accessories may be used with telecommunications services provided that such accessories comply with the provisions of Section 1, B.2. and B.1.d(1)(f) of this Section.

i. Connections of Customer-provided Communications Systems Not Subject to Part 68 of the Federal Communications Commission's Rules and Regulations

(1) Direct Electrical Connection

Customer-provided communications systems not subject to Part 68 of the Federal Communications Commission's Rules and Regulations may be connected with telecommunications services on a direct electrical basis at the customer's premises provided that:

(a) The connection is made through:

- I. a connecting arrangement furnished by the Telephone Company, or
- II. registered or grandfathered terminal equipment, protective circuitry, or communications system subject to Part 68 of the Federal Communications Commission's Rules and Regulations which, either singularly or in combination, assures that the requirements of Part 68 of the Federal Communications Commission's Rules and Regulations are met at the network interface.

In lieu of these requirements for total hardware protection, an optional, alternative method is available, as described in (2) following, for the control of signal power only.

(b) The connection is:

- I. through switching equipment, or
- II. to a customer-provided communications system not subject to Part 68 of the Federal Communications Commission's Rules and Regulations that is arranged to promptly return the network service to an idle on-hook state should the communications system fail. In addition, the customer must notify the Telephone Company when the communications system fails.

CONNECTION OF TERMINAL EQUIPMENT,
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B. REGULATIONS (Cont'd)

1. Basis of Connection to the Telecommunications Network (Cont'd)

i. (Cont'd)

(1) Direct Electrical Connection (Cont'd)

- (c) Minimum protection criteria set forth in B.1.e. preceding are complied with when the connection is made through equipment or systems that are not registered.
- (d) When the connection is to WATS service, the customer has a requirement to communicate over a WATS line to or from premises of that customer located in the same rate state as that for which the WATS initial period rate applies. Customer provided communications systems not subject to Part 68 of the Federal Communications Commission's Rules and Regulations which are not connected through switching equipment must connect only in that WATS rate state in terminal equipment or communications systems subject to Part 68 of the Federal Communications Commission's Rules and Regulations.

(2) Institutional Procedures for Signal Power Control

- (a) When customer-provided communications systems not subject to Part 68 of the Federal Communications Commission's Rules and Regulations are connected through a Telephone Company provided connecting arrangement or protective circuitry which assures that all of the requirements of Part 68 of the Federal Communications Commission's Rules and Regulations are met at the network interface, no further action is required. However, when a customer elects to connect such a communications system to the telecommunications network and the registered or grandfathered equipment, system or protective circuitry through which the connection is made does not provide protection for signal power control, the customer must comply with the following institutional procedures:
 - I. The customer-provided communications system must be installed, operated and maintained so that the signal power, within the frequency range of 200-4000 Hertz, at the network interface continuously complies with Part 68 of the Federal Communications Commission's Rules and Regulations.
 - II. The operator(s)/maintainer(s) responsible for the establishment, maintenance and adjustment of the voice frequency signal power present at the network interface must be trained to perform these functions by successfully completing one of the following:

CONNECTION OF TERMINAL EQUIPMENT,
PROTECTIVE CIRCUITRY AND COMMUNICATIONS SYSTEMS

B. REGULATIONS (Cont'd)

1. Basis of Connection to the Telecommunications Network (Cont'd)

i. (Cont'd)

(2) Institutional Procedures for Signal Power Control (Cont'd)

(a) (Cont'd)

II. (Cont'd)

- (i) a training course provided by the manufacturer of the equipment used to control voice frequency signal power; or
- (ii) a training course provided by the customer or authorized representative, who has responsibility for the entire communications system, using training materials and instructions provided by the manufacturer of the equipment used to control the voice frequency signal power; or
- (iii) an independent training course, e.g., trade school or technical institution, recognized by the manufacturer of the equipment used to control the voice frequency signal power; or
- (iv) in lieu of the preceding training requirements, the operator(s)/maintainer(s) is under the control of a supervisor trained in accordance with (i) through (iii) preceding.

Upon request the customer is required to provide the proper documentation to demonstrate compliance with the requirements in this II.

III. At least ten days advance notice must be given to the Telephone Company in the form of a notarized affidavit before the initial connection of the customer-provided communications system. A copy of the affidavit must also be maintained at the customer's premises. The affidavit must contain the following information:

- (i) The full name, business address, business telephone number and signature of the customer or authorized representative who has responsibility for the operation and maintenance of the communications system.

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CONNECTION OF TERMINAL EQUIPMENT,
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B. REGULATIONS (Cont'd)

1. Basis of Connection to the Telecommunications Network (Cont'd)

i. (Cont'd)

(2) Institutional Procedures for Signal Power Control (Cont'd)

(a) (Cont'd)

III. (Cont'd)

(ii) The line(s) which the communications system will be either connected to or arranged for connection to.

(iii) A statement that all operations associated with establishment, maintenance and adjustment of the signal power present at the network interface will comply with Part 68 of the Federal Communications Commission's Rules and Regulations.

(iv) A statement describing how each operator/maintainer of the communications system will meet and continue to meet the training requirements for persons installing, adjusting or maintaining the communications system.

(b) Extraordinary Procedures

I. The Telephone Company may invoke extraordinary procedures to protect the telecommunications network where one or more of the following conditions are present:

(i) Information provided in the affidavit gives reason to believe that a violation of Part 68 of the Federal Communications Commission's Rules and Regulations or the Institutional Procedures specified in (a) preceding is likely.

(ii) Harm has occurred and there is reason to believe this harm was a result of operations performed under the Institutional Procedures specified in (a) preceding.

II. The extraordinary procedures which can be invoked by the Telephone Company, include:

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CONNECTION OF TERMINAL EQUIPMENT,
PROTECTIVE CIRCUITRY AND COMMUNICATIONS SYSTEMS

B. REGULATIONS (Cont'd)

1. Basis of Connection to the Telecommunications Network (Cont'd)

i. (Cont'd)

(2) Institutional Procedures for Signal Power Control (Cont'd)

(b) Extraordinary Procedures (Cont'd)

II. (Cont'd)

(i) Requiring the use of protective apparatus which either protects solely against signal power or which assures that all of the requirements of Part 68 are met at the telecommunications network interface. This protective apparatus may be provided by either the Telephone Company or the customer.

(ii) Disconnecting service.

III. A charge specified by the Telephone Company will apply when:

(i) It is necessary to send a Telephone Company employee to the premises where the connection is made because a condition specified in I. preceding exists, and

(ii) A failure to comply with Part 68 of the Federal Communications Commission's Rules and Regulations or the Institutional Procedures for signal power control in (a) preceding is disclosed.

CONNECTION OF TERMINAL EQUIPMENT,
PROTECTIVE CIRCUITRY AND COMMUNICATIONS SYSTEMS

B. REGULATIONS (Cont'd)

1. Basis of Connection to the Telecommunications Network (Cont'd)

k. Connections Involving National Defense and Security

In certain cases Part 68 of the Federal Communications Commission's Rules and Regulations permit the connection of nonregistered terminal equipment or communications systems to the telecommunications network, provided that:

The Secretary of Defense; the head of any other governmental department, having requisite Federal Communications Commission approval; or their authorized representative certifies in writing to the Telephone Company that:

- (1) The connection is required in the interest of national defense and security;
- (2) The equipment to be connected either complies with the technical requirements of Part 68 or will not cause harms to the telecommunications network or Telephone Company employees; and
- (3) The work is supervised by an installation supervisor who meets the qualifications stated in Part 68.

1. Connections of Customer-provided Test Equipment

(1) Totally Protective Connections

Customer-provided test equipment may be connected to the telecommunications network at the premises of the customer through registered or grandfathered terminal equipment, protective circuitry, or communications systems subject to Part 68 of the Federal Communications Commission's Rules and Regulations which, either singularly or in combination, assures that all of the requirements of Part 68 of the Federal Communications Rules and Regulations, total protection are met at the network interface.

(2) Interim Program for Connections of Customer-Provided Test Equipment

Customer-provided test equipment may also be connected at the premises of the customer either directly at the network interface, or through terminal equipment, protective circuitry, or communications systems subject to Part 68 of the Federal Communications Commission's Rules and Regulations which does not provide protection for signal power control under the following Interim Program provided that:

CONNECTION OF TERMINAL EQUIPMENT,
PROTECTIVE CIRCUITRY AND COMMUNICATIONS SYSTEMS

B. REGULATIONS (Cont'd)

1. Basis of Connection to the Telecommunications Network (Cont'd)

1. Connections of Customer-provided Test Equipment (Cont'd)

(2) Interim Program for Connections of Customer-Provided Test Equipment
(Cont'd)

- (a) The customer-provided test equipment is limited to transmission signal power generating and/or detection devices, or similar devices, utilized by the customer for the detection and/or isolation of a communications service fault.
- (b) The customer-provided test equipment is of a type that was lawfully directly connected to the telecommunications network as of March 6, 1981. Such test equipment may remain connected, be moved or reconnected during the life of the test equipment unless it has been subsequently modified.
- (c) Direct connections of customer-provided test equipment or connections through telephone Company provided terminal equipment, or communications systems subject to Part 68 of the Federal Communications Commission's Rules and Regulations are made through Telephone Company provided jacks or as otherwise authorized by the Telephone Company.
- (d) Customer-provided test equipment must be operated in accordance with the Institutional Procedures for Signal Power Control as specified in (3) following.
- (e) The customer notifies the Telephone Company of each telecommunications network service at each premises to which the customer-provided test equipment will be connected in advance of the initial connection. The customer must also notify the Telephone Company when such test equipment is permanently disconnected at each premises.
- (f) No customer-provided test equipment or combination of test equipment with terminal equipment, protective circuitry or communications systems subject to Part 68 of the Federal Communications Commission's Rules and Regulations, including but not limited to wiring, may cause electrical hazards to Telephone Company personnel, damage to Telephone Company equipment, malfunction of Telephone Company billing equipment, or degradation of service to persons other than the user of the subject test equipment or the user's calling or called party.

CONNECTION OF TERMINAL EQUIPMENT,
PROTECTIVE CIRCUITRY AND COMMUNICATIONS SYSTEMS

B. REGULATIONS (Cont'd)

1. Basis of Connection to the Telecommunications Network (Cont'd)

1. Connections of Customer-provided Test Equipment (Cont'd)

(3) Institutional Procedures for Signal Power Control

(a) In accordance with (2)(d) preceding, the customer must comply with the following Institutional Procedures:

I. The customer must install, operate and maintain the test equipment so that its signal power at the network interface complies with Subpart D of Part 68 of the Federal Communications Commission's Rules and Regulations.

II. The operator(s)/maintainer(s) responsible for the test equipment signal power present at the network interface must be trained to perform these functions by successfully completing one of the following:

(i) a training course provided by the manufacturer of the test equipment, or

(ii) a training course provided by the customer, or authorized representative of the customer, using training materials and instructions provided by the manufacturer of the test equipment, or

(iii) an independent training course, e.g., trade school or technical institution, recognized by the manufacturer of the test equipment, or

(iv) in lieu of the preceding training requirements, the operator(s)/maintainer(s) is under the control of a supervisor trained in accordance with (i) through (iii) preceding.

Upon request, the customer is required to provide proper documentation to demonstrate compliance with the requirements in this II.

III. Advance notice must be given to the Telephone Company in the form of a notarized affidavit before the initial connection of the customer-provided test equipment at each premises after April 9, 1981. A copy of the affidavit must also be maintained at the customer's premises. The affidavit must contain the following information:

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B. REGULATIONS (Cont'd)

1. Basis of Connection to the Telecommunications Network (Cont'd)

1. Connections of Customer-provided Test Equipment (Cont'd)

(3) Institutional Procedures for Signal Power Control

- (a) In accordance with (2)(d) preceding, the customer must comply with the following Institutional Procedures: (Cont'd)

III. (Cont'd)

- (i) The full name, business address, business telephone number and signature of the customer or authorized representative who has responsibility for the operation of the test equipment.
- (ii) The line(s) to which the test equipment will be either connected to or arranged for connection to.
- (iii) A statement that all operations associated with the establishment, maintenance and adjustment of the test equipment signal power present at the network interface will comply with Subpart D of Part 68 of the Federal Communications Commission's Rules and Regulations.
- (iv) A statement describing how each operator of the test equipment will meet and continue to meet the training requirements for persons installing, connecting, adjusting or maintaining the test equipment.

(b) Extra-ordinary Procedures

- I. The Telephone Company may invoke extra-ordinary procedures to protect the telecommunications network where one or more of the following conditions are present:
 - (i) Information provided in the affidavit gives reason to believe that a violation of Part 68 of the Federal Communications Commission's Rules and Regulations or the Institutional Procedures specified in (a) preceding is likely.
 - (ii) Harm has occurred and there is reason to believe this harm was a result of operations performed under the Institutional Procedures specified in (a) preceding.

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CONNECTION OF TERMINAL EQUIPMENT,
PROTECTIVE CIRCUITRY AND COMMUNICATIONS SYSTEMS

B. REGULATIONS (Cont'd)

1. Basis of Connection to the Telecommunications Network (Cont'd)

1. Connections of Customer-provided Test Equipment (Cont'd)

(3) Institutional Procedures for Signal Power Control (Cont'd)

(b) Extra-ordinary Procedures (Cont'd)

II. The extra-ordinary procedures, which can be invoked by the Telephone Company, include:

(i) Requiring the use of protective apparatus which either protects solely against excessive signal power or which assures that all of the requirements of Part 68 of the Federal Communications Commission's Rules and Regulations are met at the network interface.

(ii) Disconnecting service.

III. A charge specified by the Telephone Company will apply when:

(i) it is necessary to send a repair person to the premises where the test equipment is connected because a condition as specified in I. preceding exists, and

(ii) a failure to comply with the Institutional Procedures for signal power control is disclosed.

m. Connections of Customer-provided Customer Premises Equipment to Individual Service

(D)

Customer-provided customer premises equipment may be connected to individual service provided that it is registered or grandfathered under part 68 of the Federal Communications Commission's Rules and Regulations for individual line service and is modifiable, by either the Telephone Company or the customer, to be compatible with the service to which it is to be connected. Such modification, in accordance with Telephone Company requirements for compatibility, must be completed prior to any connection to the service. This requirement is in addition to any other regulations applicable to the connection of customer-provided customer premises equipment to individual service which is specified in the Telephone Company's applicable tariffs.

(D)

(D)

(T)

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CONNECTION OF TERMINAL EQUIPMENT,
PROTECTIVE CIRCUITRY AND COMMUNICATIONS SYSTEMS

B. REGULATIONS (Cont'd)

1. Basis of Connection to the Telecommunications Network (Cont'd)

m. (Cont'd)

- (1) Modification, when performed by the Telephone Company, will be by a Telephone Company representative who, without special training or special tools from the equipment's manufacturer, is able to rearrange or modify the equipment in order to achieve compatibility of the equipment with the particular configuration of service involved. The Telephone Company is not responsible for parts for use with the equipment to be used on the service.
- (2) A request by the customer to modify customer-provided customer premises equipment also grants permission to the Telephone Company to modify the equipment to make it compatible. Such permission does not necessitate disclosure by the Telephone Company of information which may be of a proprietary nature to the equipment's manufacturer.
- (3) The Telephone Company may make changes to their facilities without first obtaining customer approval so long as the Telephone Company is willing to modify the equipment as set forth preceding when necessary and without charge to the customer.

2. Basis of Connection to Channel Services

Terminal equipment and communications systems may be connected at the customer's premises to channel services furnished by the Telephone Company where such connections are made in accordance with Section 1 preceding and the following provisions:

Terminal equipment and communications systems may be connected in an interpositioned configuration to those channel services specified in a.(2), (3), or (4) following subject to Section 1, B.10., Interpositioning of Terminal Equipment and Communications Systems, preceding.

a. Connections of Registered Equipment

- (1) Registered terminal equipment, registered protective circuitry and registered communications systems may be connected to those channel services specified in (2), (3) and (4) following, subject to Section 1 preceding and this 2.a., and further subject to B.1.a., B.1.b., and B.1.1. preceding

CONNECTION OF TERMINAL EQUIPMENT,
PROTECTIVE CIRCUITRY AND COMMUNICATIONS SYSTEMS

B. REGULATIONS (Cont'd)

2. Basis of Connection to Channel Services (Cont'd)

a. Connections of Registered Equipment (Cont'd)

- (2) The connection may be made only at the customer's premises to Series 2000 or 3000 channels, including the appropriate Series 5000 equivalents, that present a two-wire or four-wire loop signaling interface for such connection under the following conditions:
 - (a) Registered terminal equipment, registered protective circuitry, and registered button telephone systems may be connected to the station end of channel services furnished in connection with off-premises stations.
 - (b) Registered PBX systems may be connected, as a trunk connection, to the station end of channel services furnished in connection with off-premises stations.
- (3) The connection of registered terminal equipment and registered PBX systems may be made only at the customer's premises to a Series 2000 channel service, including the appropriate Series 5000 equivalents, that presents an interface for either two-wire or four-wire transmission, with separate E and M signaling leads conventionally known as Type I, battery/ground, or Type II, contact closure type. Such E and M signaling leads are those terminal equipment or PBX leads, other than voice or data communications leads, used for the purpose of transferring supervisory or address signals across the interface.
- (4) The connection of customer-provided registered terminal equipment and registered PBX systems may be made only at the customer's premises to a Series 1000 channel service furnished to provide indications of message registration of outgoing calls to such customer-provided equipment or systems.
- (5) Customers who intend to install, perform additions to, or make arrangements of automatic identification of outward dialing functions shall give advance notice to the Telephone Company in accordance with the procedures specified in Part 68 of the Federal Communications Commission's Rules and Regulations or as otherwise authorized by the Federal Communications Commission.

CONNECTION OF TERMINAL EQUIPMENT,
PROTECTIVE CIRCUITRY AND COMMUNICATIONS SYSTEMS

B. REGULATIONS (Cont'd)

2. Basis of Connection to Channel Services (Cont'd)

b. Connections of Grandfathered Terminal Equipment and Grandfathered Communications Systems

(1) Direct Connections

- (a) Grandfathered terminal equipment and grandfathered communications systems, directly connected to the channel services specified in B.2.a.(2) preceding are subject to B.1.c.(1), B.1.f. and B.1.g. preceding. Such connections are subject to the minimum protection criteria set forth in B.2.c.(7) following.
- (b) Grandfathered terminal equipment and grandfathered communications systems, directly connected to the channel services specified in B.2.a.(3) and (4) preceding on April 30, 1980, may remain connected for the life of the equipment without registration, and may be modified only in accordance with Part 68 of the Federal Communications Commission's Rules and Regulations, subject to the following:
 - I. All such connections shall comply with the minimum protection criteria set forth in B.2.c.(7) following.
 - II. No changes may be made to equipment so connected except by the manufacturer thereof, or a duly authorized agent of the manufacturer.
- (c) Until May 1, 1983, new installations of terminal equipment or communications systems which have been grandfathered may be connected for use with the channel services specified in B.2.a.(3) or (4) preceding, subject to the following:
 - I. The customer shall notify the Telephone Company when such equipment or systems are to be connected and shall notify the Telephone Company when such equipment or systems are to be permanently disconnected; such notification shall include a description of the equipment including the manufacturer's name, model number, and type of equipment.
 - II. All such connections are made through Telephone Company provided standard jacks or otherwise connected by the Telephone Company.
 - III. All such connections shall comply with the minimum protection criteria set forth in B.2.c.(7) following.

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CONNECTION OF TERMINAL EQUIPMENT,
PROTECTIVE CIRCUITRY AND COMMUNICATIONS SYSTEMS

B. REGULATIONS (Cont'd)

2. Basis of Connection to Channel Services (Cont'd)

b. Connections of Grandfathered Terminal Equipment and Grandfathered
Communications Systems (Cont'd)

(1) Direct Connections (Cont'd)

(c) (Cont'd)

IV. Premises wiring associated with communications systems shall conform to Part 68 of the Federal Communications Commission's Rules and Regulations.

V. No changes may be made to equipment so connected except by the manufacturer thereof, or a duly authorized agent of the manufacturer.

(d) Additions to grandfathered terminal equipment or grandfathered communications systems specified in (b) and (c) preceding may be made, subject to (c) I. through V. preceding and to the following:

I. Until May 1, 1983, where the equipment being added is of a type which has been grandfathered, and

II. After May 1, 1983, where the equipment being added is grandfathered.

III. Additions of registered equipment are subject to B.2.a. preceding.

(e) Systems connected pursuant to (b) through (d) preceding may remain connected and be moved and reconnected, in accordance with (c) I. through V. preceding, for the life of the equipment and may be modified only in accordance with Part 68 of the Federal Communications Commission's Rules and Regulations.

(f) Customer-provided terminal equipment and customer-provided communications systems connected via customer-provided grandfathered protective circuitry are subject to the provisions of (a) thru (e) preceding.

CONNECTION OF TERMINAL EQUIPMENT,
PROTECTIVE CIRCUITRY AND COMMUNICATIONS SYSTEMS

B. REGULATIONS (Cont'd)

2. Basis of Connection to Channel Services (Cont'd)

b. Connections of Grandfathered Terminal Equipment and Grandfathered
Communications Systems (Cont'd)

(2) Connections Through Connecting Arrangements Provided by the
Telephone Company

(a) Grandfathered connections of terminal equipment and grandfathered connections of communications systems to the channel services specified in B.2.a.(2) preceding are subject to B.1.d. preceding. Such connections are subject to the minimum protection criteria set forth in B.2.c.(7) following.

(b) Grandfathered connections of terminal equipment and grandfathered connections of communications systems to the channel services specified in B.2.a.(3) and (4) preceding are subject to the following.:

I. Until May 1, 1983, the Telephone Company will provide connecting arrangements for installations of new customer-provided terminal equipment or communications systems that are subject to Part 68 of the Federal Communications Commission's Rules and Regulations. However, after May 1, 1983, Telephone Company provided connecting arrangements will only be provided, to the extent that such connecting arrangements are available, to reconnect terminal equipment or communications systems which were previously connected to the channels services specified in B.2.a.(3) or (4) preceding through connecting arrangements prior to May 1, 1983.

II. Grandfathered connections of terminal equipment and grandfathered connections of communications systems made in accordance with I. preceding may remain connected and be moved and reconnected for the life of the equipment and may be modified only in accordance with Part 68 of the Federal Communications Commission's Rules and Regulations. Connecting arrangements used for such moves and reconnections will continue to be provided by the Telephone Company subject to their availability, at the rates and charges specified in Section 3 following.

CONNECTION OF TERMINAL EQUIPMENT,
PROTECTIVE CIRCUITRY AND COMMUNICATIONS SYSTEMS

B. REGULATIONS (Cont'd)

2. Basis of Connection to Channel Services (Cont'd)

b. Connections of Grandfathered Terminal Equipment and Grandfathered Communications Systems (Cont'd)

(2) Connections Through Connecting Arrangements Provided by the Telephone Company (Cont'd)

(b) (Cont'd)

III. Network control signaling shall be performed by the connecting equipment furnished, installed and maintained by the Telephone Company, except that customer-provided tone-type address signaling is permissible through the Telephone Company provided connecting arrangement.

IV. The connections specified in I. through III. preceding must comply with the minimum protection criteria specified in B.2.c.(7) following.

c. Connections of Customer-Provided Terminal Equipment and Communications Systems not subject to the Federal Communications Commission's Registration Program.

- (1) Connecting arrangements are not required and minimum protection criteria are not applicable where customer-provided terminal equipment or communications systems are connected with the following channels when such channels are used for the types of transmission specified herein due to the nature of the service provided and/or the type of channels and equipment used.

Series 1000 Channels (or appropriate Series 5000 equivalents)
Series 2000 Channels (When used for the remote operation and control of mobile radio-telephone systems or appropriate Series 5000 equivalents)
Series 6000 Channels

- (2) Except as otherwise provided in B.1. preceding, customer-provided terminal equipment and communications systems may be electrically connected to the channel services in accordance with the following provisions:

- (a) When the customer-provided terminal equipment or communications system is connected with channel service furnished by the Telephone Company and such channel service is not arranged for connection to telecommunications services, such connections shall be made to an interface provided by the Telephone Company.

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CONNECTION OF TERMINAL EQUIPMENT,
PROTECTIVE CIRCUITRY AND COMMUNICATIONS SYSTEMS

B. REGULATIONS (Cont'd)

2. Basis of Connection to Channel Services (Cont'd)

c. (Cont'd)

(2) (Cont'd)

(b) When the customer-provided terminal equipment or communications system is connected with channel service furnished by the Telephone Company and such channel service is arranged for connection to telecommunications services:

I. Except as otherwise specified in c.(5)(a)IV. following, such connections shall be made through a connecting arrangement as provided herein, and

II. The connection shall be such that the functions of network control signaling, except customer-provided tone-type address signaling through a Telephone Company provided connecting arrangement, are performed by equipment furnished by the Telephone Company.

(c) Customer-provided terminal equipment or communications systems connected pursuant to (a) or (b) must comply with the minimum protection criteria in (7) following.

(3) Data Terminal Equipment

Customer-provided data terminal equipment, including telephotograph equipment, may be connected at the customer's premises to channel service through a network control signaling unit and a data access arrangement provided by the Telephone Company in accordance with the following when such channel service is arranged as provided in (2)(b) preceding.

(a) The customer shall furnish the equipment which performs the functions of:

I. Conditioning the data signals generated by the customer-provided terminal equipment to signals suitable for transmission by means of Telephone Company services, and

II. Conditioning signals transmitted by means of Telephone Company services to data signals suitable for reception by customer-provided equipment.

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CONNECTION OF TERMINAL EQUIPMENT,
PROTECTIVE CIRCUITRY AND COMMUNICATIONS SYSTEMS

B. REGULATIONS (Cont'd)

2. Basis of Connection to Channel Services (Cont'd)

c. (Cont'd)

(3) Data Terminal Equipment (Cont'd)

- (b) Where a data access arrangement is furnished in connection with customer-provided terminal equipment and such terminal equipment is used for both voice and data communication, the data access arrangement may be used to connect the customer-provided terminal equipment for voice communication.

(4) Voice Terminal Equipment

- (a) Customer-provided voice terminal equipment may be connected at the customer's premises to channel service in accordance with the following when such channel service is arranged as provided in (2) (b) preceding.
 - I. The connection shall be made through a network control signaling unit and a connecting arrangement furnished by the Telephone Company.
 - II. Where a data access arrangement is furnished in connection with customer-provided terminal equipment and such terminal equipment is used for both voice and data communication, the data access arrangement may be used to connect the customer-provided terminal equipment for voice communication.
- (b) Attested Equipment and Conforming Answering Devices may be used with channel service subject to the provisions of B.1.f. and B.1.g. preceding.

(5) Communications Systems

- (a) Customer-provided communications systems, other than communications systems connected pursuant to B.2.a. and B.2.b. preceding, may be connected to channel service as specified following:

These communication systems, including channels derived from such systems, not exceeding voice grade, may be connected at the customer's premises where the customer has a regular and continuing requirement for the origination or reception of communications over the customer-provided communications system provided that:

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CONNECTION OF TERMINAL EQUIPMENT,
PROTECTIVE CIRCUITRY AND COMMUNICATIONS SYSTEMS

B. REGULATIONS (Cont'd)

2. Basis of Connection to Channel Services (Cont'd)

c. (Cont'd)

(5) Communications Systems (Cont'd)

(a) (Cont'd)

- I. The normal mode of operation of the customer-provided communications systems shall be to provide communications originating or receiving at the premises on which the connection is made.
- II. The connection shall be made through switching equipment provided either by the customer or by the Telephone Company.
- III. The connection shall be to channels of a type number lower than 5500 furnished by the Telephone Company or to channels created therefrom in accordance with the provisions of Section 1 of this Company's General Regulations Tariff.
- IV. When the channel service is arranged as provided in c.(2)(b) preceding, the connection is made through:
 - (i) a connecting arrangement provided by the Telephone Company, or
 - (ii) registered or grandfathered terminal equipment, communications system, or protective circuitry, which, either singularly or in combination assures that the requirements of Part 68 of the Federal Communications Commission's Rules and Regulations are met at the network interface.

Minimum protection criteria as set forth in (7) following must be complied with when the connection is made through equipment or systems that are not registered.

In lieu of these requirements for total hardware protection, an optional, alternative method, as described in V. following, is available for the control of signal power only.

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CONNECTION OF TERMINAL EQUIPMENT,
PROTECTIVE CIRCUITRY AND COMMUNICATIONS SYSTEMS

B. REGULATIONS (Cont'd)

2. Basis of Connection to Channel Services (Cont'd)

c. (Cont'd)

(5) Communications Systems (Cont'd)

(a) (Cont'd)

V. When customer-provided communications systems not subject to Part 68 of the Federal Communications Commission's Rules and Regulations are connected to channel services that are arranged as provided in c.(2)(b) preceding and the connection is through, (a) a Telephone Company provided connecting arrangement or, (b) registered or grandfathered terminal equipment, communications system or protective circuitry which assures that all of the requirements of Part 68 of the Federal Communications Commission's Rules and Regulations are met at the network interface, no further action is required. However, when a customer elects to connect a communications system to channel service and the registered or grandfathered equipment, system or protective circuitry through which the connection is made does not provide protection for signal power control, the customer must comply with the following institutional procedures:

(i) The customer-provided communications system must be installed, operated and maintained so that the signal power, within the frequency range of 200-4000 Hertz, at the network interface continuously complies with Part 68 of the Federal Communications Commission's Rules and Regulations.

(ii) The operator(s)/maintainer(s) responsible for the establishment, maintenance and adjustment of the voice frequency signal power present at the channel service must be trained to perform these functions by successfully completing one of the following:

a training course provided by the manufacturer of the equipment used to control voice frequency signal power; or

CONNECTION OF TERMINAL EQUIPMENT,
PROTECTIVE CIRCUITRY AND COMMUNICATIONS SYSTEMS

B. REGULATIONS (Cont'd)

2. Basis of Connection to Channel Services (Cont'd)

c. (Cont'd)

(5) Communications Systems (Cont'd)

(a) (Cont'd)

(V) (Cont'd)

(ii) (Cont'd)

a training course provided by the customer or authorized representative, who has responsibility for the entire communications system, using training materials and instructions provided by the manufacturer of the equipment used to control the voice frequency signal power; or

an independent training course, e.g., trade school or technical institution, recognized by the manufacturer of the equipment used to control the voice frequency signal power; or

in lieu of the preceding training requirements, the operator(s)/maintainer(s) is under the control of a supervisor trained in accordance with the requirements of this (ii).

Upon request, the customer is required to provide proper documentation to demonstrate compliance with the requirements of this (ii).

(iii) At least ten days advance notice must be given to the Telephone Company in the form of a notarized affidavit before the initial connection of the customer-provided communications system. A copy of the affidavit must also be maintained at the customer's premises. The affidavit must contain the following information:

The full name, business address, business telephone number and signature of the customer or authorized representative who has responsibility for the operation and maintenance of the communications system.

CONNECTION OF TERMINAL EQUIPMENT,
PROTECTIVE CIRCUITRY AND COMMUNICATIONS SYSTEMS

B. REGULATIONS (Cont'd)

2. Basis of Connection to Channel Services (Cont'd)

c. (Cont'd)

(5) Communications Systems (Cont'd)

(a) (Cont'd)

V. (Cont'd)

(iii) (Cont'd)

The line(s) which the communications system will be either connected to or arranged for connection to.

A statement that all operations associated with the establishment, maintenance and adjustment of the signal power present at the network interface will comply with Part 68 of the Federal Communications Commission's Rules and Regulations.

A statement describing how each operator/maintainer of the communications system will meet and continue to meet the training requirements for persons installing, adjusting or maintaining the communications system.

VI. Extraordinary Procedures

- (i) The Telephone Company may invoke extraordinary procedures to protect the private line service where one or more of the following conditions are present:

Information provided in the affidavit gives reason to believe that a violation of Part 68 of the Federal Communications Commission's Rules and Regulations or the Institutional Procedures specified in V. preceding is likely.

Harm has occurred and there is reason to believe this harm was a result of operations performed under the Institutional Procedures specified in V. preceding.

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CONNECTION OF TERMINAL EQUIPMENT,
PROTECTIVE CIRCUITRY AND COMMUNICATIONS SYSTEMS

B. REGULATIONS (Cont'd)

2. Basis of Connection to Channel Services (Cont'd)

c. (Cont'd)

(5) Communications Systems (Cont'd)

(a) (Cont'd)

VI. Extraordinary Procedures (Cont'd)

- (ii) The extraordinary procedures, which can be invoked by the Telephone Company, include:

Requiring the use of protective apparatus which either protects solely against signal power or which assures that all of the requirements of Part 68 are met at the network interface. This protective apparatus may be provided by either the Telephone Company or the customer.

Disconnecting service.

- (iii) A charge specified by the Telephone Company will apply when:

It is necessary to send a Telephone Company employee to the premises where the connection is made because a condition specified in (i) preceding exists, and

A failure to comply with Part 68 of the Federal Communications Commission's Rules and Regulations or the Institutional Procedures for signal power control in V. preceding is disclosed.

- (b) Where channel service is used in the provision of a composite data service for others and connection of such service is made to a communications system provided by a customer and the connection is made through customer-provided data switching equipment, the provisions of I. and II. preceding do not apply.

CONNECTION OF TERMINAL EQUIPMENT,
PROTECTIVE CIRCUITRY AND COMMUNICATIONS SYSTEMS

B. REGULATIONS (Cont'd)

2. Basis of Connection to Channel Services (Cont'd)

c. (Cont'd)

(5) Communications Systems (Cont'd)

(b) Customer-provided communications systems may be connected with Series 5000 wideband data channels furnished to the same customer at the premises of the customer where the customer has a regular and continuing requirement for the origination or reception of communications over the customer-provided communications system provided that:

I. The normal mode of operation of the customer-provided communications system shall be to provide communications originating or receiving at the premises on which the connection is made.

II. The connection shall be made through switching equipment provided by the customer.

III. The connection shall be made to Type 5502 service terminals provided by the Telephone Company.

(6) Accessories

Accessories provided by a customer may be used with channel services provided that such accessories comply with the provisions of Section 1, B.2. and (2)(b)II. of this Section.

(7) Minimum Protection Criteria for Electrical Connections

(a) Since channel services utilize Telephone Company channels and equipment in common with other services it is necessary in order to prevent excessive noise and cross talk that the power of the signal applied to the Telephone Company channel service is individually engineered, a single valued limit for all applications cannot be specified. Therefore, the power of the signal in the band above 300 Hertz which may be applied by the customer-provided equipment to the network interface will be specified by the Telephone Company for each application to be consistent with the signal power allowed on the telecommunications network.

(b) To protect other services, it is necessary that the signal which is applied by the customer-provided equipment to the network interface located on the customer's premises meet the following limits:

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CONNECTION OF TERMINAL EQUIPMENT,
PROTECTIVE CIRCUITRY AND COMMUNICATIONS SYSTEMS

B. REGULATIONS (Cont'd)

2. Basis of Connection to Channel Services (Cont'd)

c. (Cont'd)

(7) Minimum Protection Criteria for Electrical Connections (Cont'd)

(b) (Cont'd)

- I. The power in the band from 3,995 Hertz to 4,005 Hertz shall be at least 18dB below the power of the signal as specified in (a) preceding.
 - II. The power in the band from 4,005 Hertz to 10,000 Hertz shall not exceed 16dB below one milliwatt.
 - III. The power in the band from 10,000 Hertz to 25,000 Hertz shall not exceed 24dB below one milliwatt.
 - IV. The power in the band from 25,000 Hertz to 40,000 Hertz shall not exceed 36dB below one milliwatt.
 - V. The power in the band above 40,000 Hertz shall not exceed 50dB below one milliwatt.
- (c) Where there is connection to telecommunications services, to prevent the interruption or disconnection of a call, or interference with network control signaling, it is necessary that the signal applied by the customer-provided equipment to the network interface located on the customer's premises at no time have energy solely in the 2450 to 2750 Hertz band. If signal power is in the 2450 to 2750 Hertz band, it must not exceed the power present at the same time in the 800 to 2450 Hertz band.
- (d) Where customer-provided equipment applies signals having components in the frequency spectrum below 300 Hertz, excluding ringing signals, the currents and voltages, including all harmonics and spurious signals, at the network interface shall not exceed the limits indicated in I. through IV. following:
- I. The maximum rms (root-mean-square) value, including dc and ac components, of the current per conductor will be specified by the Telephone Company but in no case will the specified value exceed 0.35 ampere.
 - II. The magnitude of the peak of the conductor to ground voltage shall not exceed 70 volts.

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CONNECTION OF TERMINAL EQUIPMENT,
PROTECTIVE CIRCUITRY AND COMMUNICATIONS SYSTEMS

B. REGULATIONS (Cont'd)

2. Basis of Connection to Channel Services (Cont'd)

c. (Cont'd)

(7) Minimum Protection Criteria for Electrical Connections (Cont'd)

(d) (Cont'd)

III. The conductor to conductor voltage shall be such that the conductor to ground voltage limit in II. preceding is not exceeded. If the signal source is not grounded, the voltage limit in II. preceding applies to the conductor to conductor voltage.

IV. The total weighted rms voltage within the band from 50 Hertz to 300 Hertz shall not exceed 100 volts. The total weighted rms voltage is the square root of the sum of the products of the weighing factors for the individual frequency components times the square of the rms voltage of the individual frequency components. The weighing factors are as indicated:

<u>for frequencies between</u>	<u>weighing factor</u>
50 Hertz and 100 Hertz	$f^2/10^4$
100 Hertz and 300 Hertz	$f^{3.3}/10^{6.6}$

where f is the numerical value of the frequency, in Hertz, of the frequency component being weighted.

d. Channel Derivation Devices

Customer-provided channel derivation devices which are used to create additional channels or bit streams in accordance with this Company's General Regulations Tariff, Section 1 and Channel Services Tariff, Section 11 may be connected to channels subject to B.2.a., B.2.b. and Section 1 preceding.

CONNECTION OF TERMINAL EQUIPMENT,
PROTECTIVE CIRCUITRY AND COMMUNICATIONS SYSTEMS

B. REGULATIONS (Cont'd)

2. Basis of Connection to Channel Services (Cont'd)

e. Connections of Customer-provided Test Equipment

(1) Totally Protective Connections

- (a) Customer-provided test equipment may be connected to those channel services specified in B.2.a. preceding at the premises of the customer through registered or grandfathered terminal equipment, protective circuitry, or communications systems subject to Part 68 of the Federal Communications Commission's Rules and Regulations which, either singularly or in combination, assures that all of the requirements of Part 68 of the Federal Communications Commission's Rules and Regulations, total protection, are met at the network interface.
- (b) Customer-provided test equipment may be connected to those channel services specified in B.2.c.(2) preceding at the premises of the customer either directly at the network interface, or through other equipment, provided that the minimum protection criteria specified in B.2.c.(7) preceding is continually met at the network interface.

(2) Interim Program for Connections of Customer-provided Test Equipment

Customer-provided test equipment may also be connected at the premises of the customer to those channel services specified in B.2.a. preceding either directly at the network interface, or through terminal equipment, protective circuitry, or communications systems subject to Part 68 of the Federal Communications Commission's Rules and Regulations which does not provide protection for signal power control under the following Interim Program provided that:

- (a) The customer-provided test equipment is limited to transmission signal power generating and/or detection devices, or similar devices, utilized by the customer for the detection and/or isolation of a communications service fault.
- (b) The customer-provided test equipment is of a type that was lawfully directly connected to channel service as of March 6, 1981. Such test equipment may remain connected, be moved or reconnected during the life of the test equipment unless it has been subsequently modified.

CONNECTION OF TERMINAL EQUIPMENT,
PROTECTIVE CIRCUITRY AND COMMUNICATIONS SYSTEMS

B. REGULATIONS (Cont'd)

2. Basis of Connection to Channel Services (Cont'd)

e. Connections of Customer-provided Test Equipment (Cont'd)

(2) Interim Program for Connections of Customer-provided Test Equipment
(Cont'd)

- (c) Direct connection of customer-provided test equipment or connections through Telephone Company provided terminal equipment, or communications systems subject to Part 68 of the Federal Communications Commission's Rules and Regulations are made through Telephone Company provided jacks or as otherwise authorized by the Telephone Company.
- (d) Customer-provided test equipment must be operated in accordance with the Institutional Procedures for Signal Power Control as specified in (3) following.
- (e) The customer notifies the Telephone Company of each channel service at each premises to which the customer-provided test equipment will be connected in advance of the initial connection. The customer must also notify the Telephone Company when such test equipment is permanently disconnected at each premises.
- (f) No customer-provided test equipment or combination of test equipment with terminal equipment, protective circuitry or communications systems subject to Part 68 of the Federal Communications Commission's Rules and Regulations, including but not limited to wiring, may cause electrical hazards to Telephone Company personnel, damage to Telephone Company equipment, malfunction to Telephone Company billing equipment, or degradation of service to persons other than the user of the subject test equipment or the user's calling or called party.

(3) Institutional Procedures for Signal Power Control

- (a) In accordance with (2)(d) preceding, the customer must comply with the following Institutional Procedures:
 - I. The customer must install, operate and maintain the test equipment so that its signal power at the network interface complies with Subpart D of Part 68 of the Federal Communications Commission's Rules and Regulations.

CONNECTION OF TERMINAL EQUIPMENT,
PROTECTIVE CIRCUITRY AND COMMUNICATIONS SYSTEMS

B. REGULATIONS (Cont'd)

2. Basis of Connection to Channel Services (Cont'd)

e. Connections of Customer-provided Test Equipment (Cont'd)

(3) Institutional Procedures for Signal Power Control (Cont'd)

(a) In accordance with (2)(d) preceding, the customer must comply with the following Institutional Procedures: (Cont'd)

II. The operator(s)/maintainer(s) responsible for the test equipment signal power present at the network interface must be trained to perform these functions by successfully completing one of the following:

- (i) a training course provided by the manufacturer of the test equipment, or
- (ii) a training course provided by the customer, or authorized representative of the customer, using training materials and instructions provided by the manufacturer of the test equipment, or
- (iii) an independent training course, e.g., trade school or technical institution, recognized by the manufacturer of the test equipment, or
- (iv) in lieu of the preceding training requirements, the operator(s)/maintainer(s) is under the control of a supervisor trained in accordance with (i) through (iii) preceding.

Upon request, the customer is required to provide proper documentation to demonstrate compliance with the requirements in this II.

III. Advance notice must be given to the Telephone Company in the form of a notarized affidavit before the initial connection of the customer-provided test equipment at each premises after April 9, 1981. A copy of the affidavit must also be maintained at the customer's premises. The affidavit must contain the following information:

- (i) The full name, business address, business telephone number and signature of the customer or authorized representative who has responsibility for the operation of the test equipment.

CONNECTION OF TERMINAL EQUIPMENT,
PROTECTIVE CIRCUITRY AND COMMUNICATIONS SYSTEMS

B. REGULATIONS (Cont'd)

2. Basis of Connection to Channel Services (Cont'd)

e. Connections of Customer-provided Test Equipment (Cont'd)

(3) Institutional Procedures for Signal Power Control (Cont'd)

(a) (Cont'd)

III. (Cont'd)

(ii) The line(s) to which the test equipment will be either connected to or arranged for connection to.

(iii) A statement that all operations associated with the establishment, maintenance and adjustment of the test equipment signal power present at the network interface will comply with Subpart D of Part 68 of the Federal Communications Commission's Rules and Regulations.

(iv) A statement describing how each operator of the test equipment will meet and continue to meet the training requirements for persons installing, connecting, adjusting or maintaining the test equipment.

(b) Extra-ordinary Procedures

I. The Telephone Company may invoke extra-ordinary procedures to protect the telecommunications network where one or more of the following conditions are present:

(i) Information provided in the affidavit gives reason to believe that a violation of Part 68 of the Federal Communications Commission's Rules and Regulations or the Institutional Procedures specified in (a) preceding is likely.

(ii) Harm has occurred and there is reason to believe this harm was a result of operations performed under the Institutional Procedures set forth in (a) preceding.

CONNECTION OF TERMINAL EQUIPMENT,
PROTECTIVE CIRCUITRY AND COMMUNICATIONS SYSTEMS

B. REGULATIONS (Cont'd)

2. Basis of Connection to Channel Services (Cont'd)

e. Connections of Customer-provided Test Equipment (Cont'd)

(3) Institutional Procedures for Signal Power Control (Cont'd)

(b) Extra-ordinary Procedures (Cont'd)

II. The extra-ordinary procedures, which can be invoked by the Telephone Company, include:

(i) Requiring the use of protective apparatus which either protects solely against excessive signal power or which assures that all of the requirements of the Federal Communications Commission's Rules and Regulations are met at the network interface.

(ii) Disconnecting service.

III. A charge specified by the Telephone Company will apply when:

(i) it is necessary to send a repair person to the premises where the test equipment is connected because a condition as specified in (I) preceding exists, and

(ii) a failure to comply with the Institutional Procedures for signal power control is disclosed.