SPECIAL SAFEGUARDING MEASURES

CONTENTS

1. GENERAL

1.01 This section describes various precautions which are normally required during testing and working on certain important services furnished to government agencies, or others, and used in connection with activities of a defense nature, and for the protection of the health, safety, and welfare of the public.

1.02 These circuits require the application of SPECIAL SAFEGUARDING MEASURES to increase the privacy and reliability of the service and to protect them against accidental interruption, monitoring, or tampering by unauthorized persons.

1.03 The designation SSM is used to indicate the services which require the application of SPECIAL SAFEGUARDING MEASURES.

1.04 The importance of insuring that plant functions do not interfere with the operation of these circuits and that they be maintained in full operative condition at all possible times can not be overemphasized.

2. CIRCUITS REQUIRING SSM TREATMENT

2.01 The special service order and/or the toll circuit layout order will specify "SSM" for those services on which SPECIAL SAFEGUARDING MEASURES are to be applied.

2.02 Circuits provided with equipment for continuous test require SSM treatment and include the following:

(a) Bell and Lights, CADW, interoffice network (not individual stations). This is intended to include all control pairs between:

(1) A primary or alternate control center and its associated central office.

(2) Any repeaters.

(3) A repeater and a dial pulse receiving and code distributing unit, or a dial pulse receiving and control unit.

(b) Transfer relay circuit.

(c) Main Civil Defense Control Center circuits for a city. (Generally not zone control circuits unless requested by customers.)

2.03 Additional circuits may be specified locally as requiring SPECIAL SAFEGUARDING MEASURES. They may include the following type circuits:

(a) Private Line Telephone and Telegraph (including associated signal channels and TWX) for all National, State, and Local Government circuits involving national security.

(b) Operations and dispatch type circuits, including remote metering and control, such as:

Electric Power Companies
Water Power and Supply
Railroad Companies
Picture Transmission
Airline Companies
Pipe Line Companies
Civil Aeronautics (CAA)

3. METHODS USED TO PROVIDE SSM TREATMENT

3.01 The measures used to provide SSM treatment, as specified on the special service order or toll circuit layout order, will involve the following considerations:

(a) Outside Plant

(1) The use of unbridged cable pairs. When specified on the Special Service Order and/or where required by other Bell System Practices, local channels should, if feasible, be unbridged. If bridged, all bridge appearances should be safeguarded in the same manner as the main portion of the local channel.

Note: Certain types of circuits require that multiple appearances be avoided or removed. For example, dial pulse signaling circuits interconnecting control points and various central offices involved in the "Bell and Lights, CADW" system.

(2) The locking of terminals through which the circuits extend.

(3) The installation of cable in lieu of exposed drop and inside wire.

(4) The installation of inside wire in conduit.

(5) Binding posts and fuses in cable terminals shall be protected with binding post insulators and binding post caps, where called for on orders designated SSM or where local practices require their use for the particular type of service involved.

(b) Central Office

(1) Suitable precautionary measures such as the use of protective devices, indicators, and guards as described in Bell System Practice Section 069-120-801.

(c) Records

(1) Service orders and trouble tickets should clearly indicate when SPECIAL SAEFGUARDING MEASURES are involved.

(2) Cable records should clearly indicate those circuits on which SPECIAL SAFEGUARDING MEASURES are in effect.

(d) Subscriber Line Cards

(1) Subscriber line cards shall be marked SSM so as to provide ready identification and insure 24-hour service. In addition, the measures applied to the circuit, such as "Multiple Appearances Removed" or "Terminals Locked," shall be entered for maintenance purposes.

(2) The subscriber line card shall include an entry listing the control authority for each circuit and any conditions peculiar to that circuit.

(3) Where necessary, subscriber line cards used for maintaining records of safeguarded lines shall include a simple circuit layout sketch and test instructions showing the circuit condition for both ends of the circuit. This will generally be required for circuits other than lines having telephone numbers.

4. TREATMENT OF SERVICE ORDERS

4.01 Upon receipt of a special service order and/or a toll circuit layout order, on which SPECIAL SAFEGUARDING MEASURES are to be applied, the order shall be analyzed to determine the nature of the work to be done; precautions to be taken by the installer; test information needed for subsequent maintenance; whether binding post insulators are required and if so where; central office precautions necessary; etc; so that when work is begun all required precautions will be taken and necessary information secured.

4.02 When establishing new services on which SSM applies, or when existing services are being given this classification, the deskman shall verify with the forces concerned:

(a) That applicable measures, as outlined in Paragraphs 3.01 (a), have been applied.

(b) That an O.K. has been secured from a representative of the subscriber, the toll testboard, the central office control supervisor, or other designated control authority, depending upon the type of circuit.

(c) That central office safeguarding precautions have been applied where required.

(d) That, where required by local practice, inside wires have been tagged at all locations.

4.03 Where circuits, or portions of a circuit, are to be disconnected, a release shall be obtained from the designated control authority prior to starting work. Care shall be exercised to insure that any equipment, which may be on the circuit, will not be activated during disconnection.

4.04 When the field forces are adding, disconnecting, or rearranging extensions to circuits on which SSM applies, the main service shall be tested as soon as the field work is completed.

4.05 On new circuits requiring SSM, and for existing circuits being given this classification, secure all of the information required relative to test indications of a normal circuit, loop resistances, etc, and enter the information on the back of the service order for transcription to the subscriber line card.

4.06 All service orders on which SSM applies shall be O.K.'d by the field forces with the test desk.

Note: Service orders requiring SSM treatment shall not be considered completed by the Plant Department until provisions for application of SPECIAL SAFEGUARDING MEASURES have been provided.

5. TREATMENT OF CABLE AND LINE OR STATION TRANSFERS

5.01 Pairs on which SSM has been applied shall not be transferred on line or station transfers to create facilities for service order assignment, but shall only be transferred when necessary due to the nature of outside plant rearrangements authorized by work orders.

5.02 To insure that the need to maintain SSM conditions will be recognized in connection with any plant rearrangements, the designation SSM will be entered on the cable and line or station transfer forms by the forces who prepare the forms. Steps shall be taken by the deskman to insure that the requirements of SSM are maintained.

5.03 Review all transfer forms to determine whether any pairs requiring SSM treatment are involved. These pairs are usually encircled with red pencil to indicate the need for special treatment. In addition, the letters SSM are entered on the transfer forms in connection with the pairs involved.

5.04 A release to work on the circuit shall be obtained from the designated control authority prior to the start of any work on the circuit. Under no circumstances shall lines requiring SSM treatment be opened, grounded, short-circuited, or manipulated in any way without obtaining a release from the control authority.

Caution: Provision shall be made to ascertain that no persons are permitted to work on Civil Air Defense Warning equipment, or cable or equipment which might affect Civil Air Defense Warning signals, until the work to be done, the methods to be followed, and the date and time involved have been approved by the supervisor designated by the Company to be responsible.

6. CONSTRUCTION WORK

6.01 Before beginning construction work involving the possibility of interference with working lines, the field forces will review the cable and count involved with the test center and/or the assignment center forces to determine whether there are pairs in the affected facilities to which SPECIAL SAFEGUARDING MEASURES have been applied.

6.02 The test center forces, in conjunction with the designated control authority, are responsible for determining that continuity of these services is protected against interference during the progress of the construction work and, in conjunction with the field forces, shall formulate plans to be followed during the progress of the work.

6.03 Plans for protecting these services from interruptions due to construction work will usually include the following measures:

(a) Arrangements to secure permission from the designated control authority before work is started. This may require that the work be performed at a particular time of the day or night when interruptions will not interfere with the service.

(b) Selecting testing equipment and working methods which will not result in interference to the service, e.g., testing to make sure that conductors are free of trouble before back tapping to other conductors serving SSM services.

(c) Placing, removing, or rearranging protective devices at frames and terminals.

(d) Testing upon completion of the work to determine that the service is in correct working condition.

7. CABLE TROUBLE

7.01 Whenever cable trouble is encountered, the test center forces shall determine whether or not any pairs, on which SSM has been applied, are involved in the affected cable.

7.02 In the event that these services are involved in the cable trouble, the control authority shall be notified and emergency measures shall be initiated to effect restoration of the service.

7.03 In areas having centralized cable maintenance or during periods when cable repairs are being centralized under emergency restoration conditions, the test center shall notify the cable maintenance force as to the importance of each case of cable trouble from the standpoint of safeguarded lines, and shall advise as to the trouble clearing preference applying to each case.

8. TEST DESK PRECAUTIONS

8.01 Before testing on any safeguarded line, the nature of the service shall be determined from an inspection of the line card, and the subsequent tests shall be conducted according to the type of circuit involved.

8.02 A release shall be obtained from the control authority before testing or working on the circuit at any point.

8.03 Field forces assigned to work on these circuits shall be advised as to the precautions which shall be taken; central office employees shall be similarly advised.

8.04 When granting permission to employees to work on circuits requiring SPECIAL SAFEGUARDING MEASURES, the deskman shall enter, in the "Trouble Reported" space of the subscriber line card, the date, time, and name of the control authority who authorized the release of the circuit, and the period during which the work shall be completed.

8.05 When the work has been completed, the deskman, in conjunction with the control authority, shall determine that the circuit is in operating condition and notify the persons concerned. Enter, in the "Trouble Reported" space of the subscriber line card, the date, time, and name of the control authority who verified that the circuit is in operating condition.

8.06 Because of the importance of the circuits on which SPECIAL SAFEGUARDING MEASURES have been applied, dependability and reliability are vital, it is, therefore, essential that employees be thoroughly familiar with the location of the records and the procedures peculiar to these circuits.