TELEVISION TRANSMISSION
SERVICE PROCEDURES

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1. GENERAL

1.01 This section covers procedures and other activities pertaining to the furnishing of television service for which the operating centers and other operating forces are responsible.

1.02 Serving Television Operating Centers (STOCs) and Television Facility Test Points (TFTPs) referred to in this section are described in Section 318-003-000.

1.03 As used in this section " operating company" is a Bell System operating company other than Long Lines.

1.04 Glossaries of video terminology are contained in Sections 318-015-000 and 318-015-100.

1.05 Under present tariff regulations, TV audio is ordered in conjunction with video as television service. However, until future planning is implemented, TV audio facilities generally will be maintained as a program transmission service. The operating responsibilities will be covered in this section.

1.06 The Television Operating Center (TOC) optimization plan results from a need to improve the revenue cost relationship for television service. The plan calls for a reduction of TOCs to a stratigically located minimum number. Therefore changes in former operation and maintenance responsibilities are necessary. The most significant of these is the transfer to the Subcontrol Office or STOC office many of the Serving Test Center (STC) responsibilities previously handled by the now retired TOCs. These retired TOC locations will be known as TFTPs. The TOC optimization plan when completed intends the subcontrols or STOC to handle most of the video switching for his territory by remote control IF switching. The audio portion in future plans may include diplexing, or otherwise combined on the video signal so that most of the individual audio switching will be eliminated. Since some period of time will elapse before total implementation of the plans can be accomplished, interim operational responsibilities are necessary and are included in this section. In future planning a method of separating the audio will be provided at STOC locations for performing normal operations.

1.07 The television audio networks at the TFTP during the interim period will generally be handled by the Program Operating Center (POC).

The POC will perform switching, testing, and monitoring requirements requested by the Supervising Office.

1.08 The television audio networks at TOCs are normally extended from the program appearances to the TOCs to provide for feeding any audio local channels terminating in the TOCs, and for cue switching and comprehensive monitoring. As TOCs are retired, this design capability may not be available. However, when cue switching or patching is required at video TFTP locations, the TV audio should be extended from the program operating center.

1.09 Control and subcontrol responsibilities pertain to temporary services as well as network services.

2. ARRANGEMENTS FOR SERVICE

2.01 All arrangements with customers for service ordinarily are made by the Sales Department. Central office employees are not in a position to keep informed fully as to rates, availability of facilities, etc., and should be particularly careful to avoid furnishing the public with information regarding such matters.

A. Long Lines Orders Requiring Local Channel Installation

2.02 The manner of ordering local channels varies widely with different customers, and the processing of the service orders varies with the different operating and independent companies.

2.03 The STOC/TFTP serving a customer is responsible for the coordination of plant effort required in completing the local channel portion of a service order.

2.04 The STOC/TFTP should verify with the appropriate local operating company representative that required local service orders have been issued, and that those orders have been received by the plant service centers and installation forces.

2.05 The STOC/TFTP should verify with the appropriate local operating company representative that installation work and lineup testing of facilities and equipment will be completed to meet the ordered service.

2.06 The satisfactory completion of prescribed lineup tests on local channels normally is a local operating company responsibility. In some cases however, Long Lines may assist by measuring and adjusting the local channel equipment if it is located and maintained in Long Lines quarters.

2.07 The STOC/TFTP should verify satisfactory completion of final tests on local channels to ensure that they meet requirements, participating as required.

2.08 Each STOC/TFTP should report the completion of that protion of the service order for which the office is responsible to the Plant Control Office for that service. This includes any service affecting exceptions.

B. Priority Considerations on Back-to-Back Services

2.09 Some services are ordered specifing an approximate "good-night," time. This time is usually the outside time or estimated end for the ordered service. It is possible for Sales to issue another order starting at a time shortly after the "good-night" time of another order. The two services, due to the reduced facility layout, may be assigned to use the same facilities as back-to-back services. In this instance, the upcoming service has priority and should be started on time, pre-empting the service in progress.

2.10 On these occasions, the Control Office should notify the television Facility Management Center (FMC)-TV, that a particular service may be pre-empted to permit starting another service assigned to the same facilities on a back-to-back basis. However, every effort should be made to exhaust all possible means to avoid pre-empting a service. It may not be possible to provide a way to save the video portion, but in the case of audio facilities there should be no pre-empting the audio. If it is evident that the audio facilities for the upcoming service will not be available, the Control Office for the service should issue audio patch orders to start the service using lower grade facilities.

3. ASSIGNMENT OF FACILITIES

3.01 Assignment of interexchange (IXC) facilities to meet television contract (full-time) network requirements are made by the LL broadcast service engineer.

3.02 IXC facility assignments for occasional TV audio services are made by each Control Office audio FMC who control the occasional layout within their respective Control territories. In some cases, Subcontrol Offices control occasional facilities and are delegated assignment responsibilities by their Control Office.

3.03 IXC facilities for occasional (part-time) video services are assigned by the FMC-TV located in N.Y.C.

3.04 Facility assignments should be transmitted in a style determined by the Control Office making the assignment, but in such a manner as to identify it positively with the service to which it applies. Include the service order number, the customer, and the time and date of service. Each facility assignment should be made as soon as possible after receipt of the service order. At the discretion of the Control Office, facility assignments may be made on a recurring until further notice (UFN) basis.

3.05 If a facility assignment involves the use of an occasional facility controlled by another office, a release must first be obtained from that office.

3.06 If suitable audio facilities are not available, for assignment, the Service Control Office should refer the matter to the appropriate Sales Office and inform the Broadcast Service Engineer.

3.07 So far as feasible, assignments for occasional services generally should conform to the corresponding assignments for permanent networks with respect to routing, type of facilities, and service control arrangements.

3.08 For non-network customer services, control assignments should be made on the basis of the office in the best or most feasible position to furnish the service as viewed from considerations of service operation and customer contact. Such control assignments are limited generally to the larger operating offices.

3.09 The Plant Control Office shown on the service order will function as the Control Office for the service. If this office is not the most suitable to control, another may be selected. Testrooms which assign facilities normally should function as Subcontrol Offices on their respective assignments.

3.10 Where it appears desirable, Control Offices may delegate responsibilities for occasional services to other offices in better positions to handle them. Such Subcontrol assignments usually will be in accord with the facilities assigned and notification of them should be made at the time of the facility assignment if possible. Subcontrol Offices so assigned will have responsibilities and duties as provided herein, reporting to the offices which assigned them.

4. MONITORING

4.01 All offices should monitor when so requested by their Supervising Offices. Even though not furnishing service locally, each STOC should nevertheless have terminal and monitoring equipment in readiness to permit trouble monitoring. Each TFTP should have terminal and monitoring equipment available to permit trouble monitoring.

4.02 On occasion, monitoring will be required under the following conditions:

(a) On receipt of a report of continuing trouble from a local station

(b) On receipt of a report of continuing trouble from another office

(c) On request from the Supervising Office.

4.03 For monitoring purposes, the KS-19833-L1 monitor and KS-19763-L1 "A" scope are recommended for viewing black and white transmission in monochrome. High impedance inputs are provided on these units and may be used either balanced or unbalanced for terminated or high impedance monitoring (Section 318-010-301).

4.04 Monitoring equipment at STOCs or TFTPs should be arranged for terminated monitoring. Experience has shown that high impedance measuring and monitoring can result in false indications of video response, becoming serious above 2 MHz. It is desirable, therefore, for purposes of waveform and picture quality monitoring to monitor from the output of a distribution amplifier or A4 amplifier, i.e. terminated monitoring. So far as feasible, monitoring on a high impedance bridged basis should be reserved for continuity checking. In so

doing, the patch cord used to connect the monitor to the circuit under test should be kept as short as possible because of the effect of the bridged capacitance of the cord on the working circuit.

4.05 For color monitoring of national television committee (NTSC) color transmissions, the Conrac monitor is the recommended monitor. Color monitors at some locations are provided to satisfy network customer requirements. However these monitors should not be used for location of color impairments.

5. SWITCHING

5.01 Requirements for telephone company switching for television services are covered on operation orders and service orders.

5.02 Each STOC and TFTP should prepare a daily switching and service operations schedule. All necessary information should be listed to permit performance of switches or rearrangement of television lines and local channels as covered by service orders, operation orders, or for plant operating purposes.

5.03 When cue switches are required at a video TFTP location, the associated TV audio or cue source should be extended to the video TFTP loaction for that purpose.

6. PATCHES AND REROUTES

6.01 Patch orders preferably should be in form prescribed by patching instructions and should be specific as to whether all services fed from a facility should be patched or whether a particular line or local channel is intended.

6.02 Patch orders passed verbally should be repeated back by the receiving office to the issuing office.

6.03 An up-to-date record of reroute possibilities should be maintained at each office. This record should include any equalization and gain adjustments that have been made on these facilities within that office. This information should be supplied to the Supervising Office upon request.

6.04 The Supervising Office should be informed immediately of potential, partial, or total line failures which affect or which might affect service or reroute availabilities. Keep informed of the state of the weather in the general vicinity and report to the Supervising Office weather conditions which appear likely to affect services adversely.

6.05 When rerouting or restoring a network section, disconnect any local channels and sidelegs not scheduled to receive the service.

6.06 When a facility shortage exists in any controlled section, networks should be made good as directed by the FMC-TV for video or audio FMC with the concurrance of the Program Sales Department.

6.07 So far as feasible, patches should be made so as to retain facility designation.

7. CONTRACT (FULL-TIME) SERVICE

7.01 The Control Office should be notified of any interruptions or other unsatisfactory conditions that develop before or during the service period.

7.02 Offices should clear troubles promptly within units controlled.

7.03 Tests and test checks of network facilities are covered in Section 318-010-306.

8. SETTING UP OCCASIONAL (PART-TIME) SERVICES

8.01 By setting up a service is meant connecting the facilities together from the transmitting local channel or other source to the receiving offices in preparation for the prior-to-service tests.

8.02 The Control Office of an occasional facility which is assigned to an occasional service should issue the necessary patch orders to do the following with the concurrence of the Facility Control Office:

(a) Disconnect section of the facility not required for the service.

(b) Connect together occasional facilities or portions thereof as required for service.

(c) Return the facilities to their normal operating condition promptly upon conclusion of the service and notify the Facility Control Office.

8.03 All local channels installed for occasional use should be checked, if possible, at least 2 hours prior to service start. The transmitting local channel requires a level check to insure the receipt of proper level from the pickup point. The receiving local channel should be checked for proper level to the station.

8.04 At least 30 minutes prior to the start of service with time permitting, the transmitting office should feed multiburst on the video facility and 1000-Hz tone on the audio facility. These test signals should be calibrated and fed at normal transmission levels. If a multiburst test signal is not available, a window signal should be transmitted. (For large temporary networks involving several control sections, modify the checking test period to 60 minutes prior to the initial service, assuming availability of facilities.) Any noticeable defect in the transmitted test signals should be remedied. The Service Control Office should be advised by the transmitting office when test material is being transmitted.

8.05 A check for satisfactory transmission should be made by each office for amplitude, frequency response, and level on the video portion and level on the audio portion at each terminal receiving TELCO office. Each office should observe for any noticeable defects. This may be done while establishing the facilities.

8.06 Approximately 30 minutes prior to service time, the transmitting local channel, and all receiving local channels should be connected to the facilities. The Control Office should check to insure that the customer's signal is being received by all terminal offices on the service. Each receiving office should verify the source of the test program, and check his local customer to insure that the service is continuous from end to end.

8.07 Special attention should be accorded to checking the levels in those cases where two or more remote pickups will be fed to a network as portions of one program period because of the opportunity for comparisons and the service reactions which would result from any wide differences in levels.

> ***Note:*** When using test material that does not originate locally, the test material should be interrupted at the point of connection and the interruption identified to the terminal office to ensure continuity. When using common test material to check test on paralleling circuits, the transmitting office should interrupt the test material first to one circuit, then to the other and identify the interruptions with the terminal office to ensure continuity. Where feasible, however, it is better to avoid use of common test material.

8.08 Facilities other than spare or permanently assigned units or TVSs, assigned for service, should be conditioned in accordance with practices covering the type of facilities involved.

8.09 When sections of a regularly assigned network are used for a special service or for making good another service even though it may be for the same customer, arrangements should be made by the office controlling the section to disconnect the unused portions of the facility including all local channels not specifically ordered connected for that service.

8.10 Stations scheduled to receive service should be connected to the circuit not less than 10 minutes prior to the scheduled start of the service period, except where station local channels are in use for other services at this time. Back-to-back service priority is covered in Par. 2, item B.

9. TAKING DOWN OCCASIONAL SERVICES

9.01 Circuits used for occasional services should be restored to their normal condition after "good-nights" have been obtained on the services involved. Offices responsible for setting up the circuits are also responsible for this operation.

9.02 When a service uses a local channel facility only or when service concludes to one or more stations of an ordered service before the remainder of the network is "good-night", disconnect such stations on a time basis unless service orders specify disconnecting them on a cue basis. Before cutting a station, obtain a "good-night" from the station. This operation should be done as soon as feasible after conclusion of the service and, in general, should be completed within the 5-minute period immediately following the conclusion.

9.03 Where a service concludes at the end of a program of indefinite duration, if feasible, a closing cue and its approximate time will be included in the order. Monitoring for this cue

should begin 5 minutes prior to the approximate time given. For other services, "good-nights" should be obtained as follows:

(a) The source of the "good-night" should be shown on the order.

(b) Generally, obtain the "good-night" from the originating (pickup) point.

(c) If the procedure of (b) is not applicable, obtain the "good-night" from a station or other office of the customer connected to the service, and if this is not feasible from any customer's representative who can be reached.

10. TROUBLE REPORTING AND LOCATION PROCEDURES

A. Bell System Served Customers

10.01 Customers will report their troubles on television service (video and/or audio) to an STOC. The TFTP should not accept customer reports.

10.02 Trouble reports should be documented and verified as stated in Section 318-010-300 par. 4.04.

10.03 On completion of trouble handling reports, the Control Office should forward the reports in accordance with section 318-001-010.

10.04 The STOC and TFTP offices should establish, for their territory of responsibility, methods for notifying various maintenance groups who would be involved in trouble clearance on television services.

10.05 On observing or receiving a report of trouble, proceed as follows.

(a) If trouble is verified to be on the backbone facility, the trouble should be immediately referred to the Control Office for sectionalization.

(b) The Control Office on sectionalizing the trouble should:

(1) Issue patch order to restore service if facilities are available.

(2) Notify the appropriate FMC that the facilities used in (1) above are not available.

(3) Request a switch to protection if a video facility is involved.

(4) Request a restoration plan for a video restoration.

(5) Refer the trouble to the proper maintenance group (audio or video).

(6) The STOC will not report the location or clearance to the stations in its reporting territory, unless a station initiates the request.

Note: In some cases, the office receiving the report of trouble may not be in position to observe the backbone facility. In this case, another STOC or TFTP in the best position to aid in sectionalizing the trouble should be requested to assist in the location of the trouble.

(c) If the trouble is sectionalized to a sideleg facility fed from the backbone facility either at an STOC, TFTP, or a remote location, the Subcontrol Office should:

(1) Arrange for and coordinate patch orders, assuming facilities are available, to effect a service restoration.

(2) Request a protection switch on video when available.

(3) Request a restoration plan on video from the restoration Control Office when established plans are available.

(4) Refer the trouble to the proper maintenance group or maintenance center.

(d) If the trouble is sectionalized to a local channel or IXC and local channel section fed either from an STOC, TFTP, or remote location, the STOC should:

(1) Request a local make good if facilities are available.

(2) Sectionalize and refer immediately to the responsible maintenance group and coordinate with them for trouble clearance. If the trouble locates in the local channel, the STOC should refer the local channel trouble to the TFTP for clearance.

(3) On completion of trouble handling, report clearance to the customer and Supervising Office, except the TFTP who should report the clearance only to his Supervising Office.

Note: In all cases, it is assumed that STOC and TFTP equipment has been cleared of trouble suspicion.

Pickup Troubles

10.06 Obvious pickup troubles, e.g., sync only, camera switches, microphonics on one camera, video tape troubles, etc. should not be accepted by the telephone company. In such cases, if the station requires confirmation he should be directed to contact the originating master control room. If the reporting station does not agree that a trouble is obviously from the pickup, normal trouble reporting procedures should be followed.

B. Operating Procedures for an STOC for Interconnecting Services with Other Communication Companies as provided under Tariff 260

10.07 The TELCO STOC will accept reports of service impairments from an MCC, PS, customer, or TELCO served stations on services originating or terminating at these locations.

10.08 The STOC will not accept reports of service impairments directly from stations outside of the TELCO served territory served by the MCC or PS.

10.09 Trouble reports received from TELCO served points (*) for services originating from or section or sections of MCC or PS facilities will be handled as follows.

(a) If trouble locates on TELCO facilities, the STOC will prepare a trouble ticket and follow standard procedures to locate and clear the trouble and advise the TELCO served points of trouble clearance time.

(b) If trouble locates on MCC or PS facilities, the STOC should prepare a trouble ticket and code the trouble "MCC" or "PS" depending upon the location. The STOC will inform the affected TELCO served points that the trouble locates on MCC/PS facilities and if additional information is required, the served points should contact the network customer on contract services or the customer ordering the occasional service. However, stations served by MCC or PS should be instructed to call their carrier.

(*) TELCO served points include:

(1) Broadcast stations served directly by TELCO

(2) Point of interconnnection with MCC or PS.

10.10 The STOC will not accept calls from points in the territory served by MCC or PS facilities.

10.11 ***Service Responsibility:*** For purpose of trouble clearance and service, the STOC should consider all services provided to an MCC or PS customer as.

(a) Interconnected to FCC tariff 260 provided service channels, either receiving or transmitting, terminating at a TELCO demaracation point on the MCC or PS premises.

(b) Interconnected direct at a local broadcast station to FCC tariff 260 service channels, receiving or transmitting, furnished by TELCO terminating at the TELCO demarcation point on the station premises.

(c) Facilities leased by the MCC or PS from the associated company are not considered FCC tariff 260 service channels and are the sole responsibility of the associated company.

Note: Impairments that locate beyond the TELCO demarcation point are not the responsibility of the STOC.

10.12 The MCC, PS, or the local broadcast station will be responsible for determining whether or not signal levels are satisfactory at the point of interconnection.

10.13 Testing methods are as follows.

(a) The MCC, PS, or broadcast station experiencing trouble should contact the STOC to determine if signal impairments are observed by the STOC. Troubles observed by the STOC should be handled in a normal manner.

(b) If reported trouble is not observed by the STOC, the STOC should sectionalize the trouble to determine if it is incoming to the TFTP office serving the station. When the STOC is serving the station, proceed as in (d) below.

(c) If trouble is incoming to the TFTP serving the MCC/PS, the trouble is located and the condition corrected.

(d) If the testing method troubles are not observed by the TFTP at this point, the STOC should request the MCC/PS to verify if the trouble still exists. If it does, the MCC/PS should determine if the problem is observed at the point of connection.

(e) The terminology in section 318-015-100, Issue 3, "Television Signal Analysis" should be used by the MCC, PS, broadcaster, and the STOC when discussing transmission impairments.

(1) If the MCC, PS, or broadcaster insists that his facilities and equipment are clear and access to the TELCO equipment is available, the STOC/TFTP should arrange to dispatch a TELCO repairman.

(2) When access is required at the point of interconnection for service or routine tests, this access should not be gained by the telephone company unless a representative of the MCC or PS is present.

(3) In cases where no further trouble clearing action can be taken without access to the point of interconnection, access has been requested but refused or delayed, and the MCC or PS understands his refusal or delay may prolong service restoration, duration of clearing time may be suspended during the period such access is denied or delayed. In every case, however, a reasonable attempt should be made to obtain access as soon as possible.

(4) If no trouble is found on the TELCO facilities, a maintenance of service charge (E-5855) may apply to the TELCO customer. Follow the procedures in Section 600-010-312 for this purpose.

10.14 The MCC or PS normally should cover and report troubles from their operating location at the point of interconnection. There may be occasions when this location would not be covered and troubles would be reported from some other location. In these instances, the STOC should accept the trouble report and proceed in a reasonable manner to satisfy the reported trouble condition. Such reports should be considered as exceptions. If exception reports continue, the Sales Office handling the customers account should be informed so that corrective action can be taken.

10.15 The STOC and TFTP will cooperate with the MCC, PS, or broadcaster on services established through interconnection as follows.

(a) Lineups for monthly and occasional services will be conducted in a normal procedure as for any served customer.

(b) The STOC will not act as a coordinator between stations in TELCO served territory and stations in MCC or PS served territory.

(c) If a trouble condition is sectionalized outside of TELCO facilities, the STOC receiving the report should inform the reporting location that the TELCO facilities are clear. Requests for further status are not a TELCO responsibility.