MANAGEMENT QUALITY CONTROL PLAN
CENTRAL OFFICES

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1. GENERAL

1.01 This Section updates procedures for evaluation review of the quality aspects of local and toll switching system offices. This procedure for evaluation review applies to all sizes of offices, including community dial offices.

1.02 This Section is reissued to include an additional catagory - Central Office Coin Equipment. This Section also changes the instructions for forwarding copies of the "Central Office Quality Control-Central Office Review."

1.03 Part 2 contains an explanation of the methods employed in making the central office review and establishes procedures for summarization of recent office results for analysis prior to the central office review.

1.04 Parts 3 through 11 provide outlines for the review of central offices to determine the extent to which approved practices and policies are followed and to evaluate the effectiveness of the central office job.

1.05 Part 12 provides for post review meetings and for reporting results of the central office review.

1.06 Central office reviews are conducted by members of the Assistant Vice President's Network Maintenance Staff (Quality & Production Supervisors) in switching system central offices on the following basis:

(a) Large office (10,000 stations-up and toll switching) - annual

(b) Small office (less then 10,000 stations) - 2 years.

Central office review formats, which are outlined in Parts 3 thru 11 may be used by area or division staff personnel as directed by the General Manager or by the Division Manager.

1.07 The central office review results may be used by appropriate levels of management to obtain an overall evaluation of:

(a) The effectiveness of central office operations.
(b) Reasons for known or suspected unsatisfactory central office service.
(c) Use of the work force and force needs.
(d) The need for practice revision.
(e) The need for policy review or policy change.

1.08 An evaluation summary report is included to evaluate individual quality review categories and develop a measurement band to reflect the conditions evaluated under these categories:

1.09 The measurement banding technique groups performance bands into four bands for each major category. These bands are:

Band A - No specific action needed at this time (all items within a category are statisfactory).

Band B - Certain actions are indicated and should be corrected with no further evaluation (no more than 15% unsatisfactory items with a category).

Band C - Immediate follow-up is needed to establish programs to correct items (more than 15% un-satisfactory items within a category).

Band D - Immediate action is required: (any category containing an item which is considered a safety hazard or could cause adverse service reactions or is a possible cause of abnormal service, regardless of the condition of other items within that category).

These bands are designed to provide managers with a measurement aspect to be used in evaluating results and programming corrective action.

The summaries consist of individual office (Appendix 1, Attachment 2) and multi-office (Appendix 1, Attachment 3) reports. The individual office report will reflect how an individual central office was measured under the nine major categories provided. The multi-office report will provide District, Division and Area summaries to reflect total offices reviewed and number of offices in each band category. Quarterly and annual multi-office summaries will be forwarded to the General Manager showing Division and Area results.

The nine major categories are:

1. Office administration
2. Corrective maintenance
3. Preventive maintenance
4. Power equipment
5. Frame administration
6. Safety, security and buildings
7. AMA - Billing
8. W.E. Company activity
9. C.O. Coin Equipment

1.10 Offices having band C or band D performance in any of the nine major categories will be required to furnish, within 30 days of the review and through the lines of organization, a report to the General Manager on program(s) established for band C performance levels and what action was taken to correct band D performance levels. All offices with C or D band results will require Area Office follow-up until all items are corrected.

2. GENERAL REVIEW INSTRUCTIONS

2.01 The Management Quality Control Plan for Central Offices provides for evaluation review of central office switching and related equipment to determine the extent to which approved practices and policies are followed and to evaluate the effectiveness of the day-to-day and long range job planning. The frames, central office switching and circuit equipment and central office buildings. The review does not include work operations performed by toll forces such as toll terminal and carrier maintenance but does include toll switching systems and transmission and signalling equipment maintained by switching forces.

2.02 The central office review employs a three step method to evaluate the central office and report results. The first step is the gathering of data for analysis by the evaluator prior to visiting the central office. The second step is the review

made at the central office using an outline format. The third step is the post review meeting with local supervision and the preparation of the findings and recommendations report.

2.03 Prior to the visit to the central office the evaluator shall gather performance indicators for each of the last six months. The central office performance indicator items to be included on the review report shall be gathered from the switching system performance or service results reports. The evaluator shall secure or arrange for the required data from the Area, Division, or District office files.

2.04 The evaluator should have the performance indicator data early enough to allow the evaluator to become thoroughly familiar with it prior to visiting the central office. The evaluator should review the data for trends as well as current performance. The analysis of the indicators may suggest areas for detail checks during the central office review. The evaluator should also be prepared to discuss the performance indicators with local supervision during the post review meeting.

2.05 The procedure for the evaluation review of central offices and instructions for the use of the "Central Office Quality Control - Central Office Review" checklists are contained in parts 3 thru 11.

This format is intended for use in all types of central office switching systems and is intended to suggest what is to be reviewed rather than limit the scope of the review.

2.06 The evaluator must be thoroughly competent in both technical and administrative aspects of the central office operations if an accurate evaluation is to be conducted. The evaluator must understand the principles of controlled maintenance, fully support the concept and be able to show how controlled maintenance objectives should be attained.

2.07 The decisions of the evaluator must be impartial and consistent in reporting conditions as they are actually found. Interpretations of approved practices must be based on good judgment, considering the intent of the practice.

2.08 The evaluator should keep alert for things which may suggest profitable avenues to follow or which may have a bearing on conditions previously or subsequently determined. For example, observing a frame technician working without proper regard for protection of nearby working circuits may prompt a thought to look at service order work recently completed by that frame technician. Similarly, a passing comment that the high frame load demands switching technician part time might prompt further questions and a check of time sheets for proper charging of work time. The evaluator should be interested in strength as well as weaknesses. Seeing a unique method of handling a problem might prompt questions to bring out details to permit evaluation for possible wider use of the idea.

2.09 It is intended that the evaluator note deficiencies as they are encountered rather than waiting to make a separate tour of the building to evaluate these items. For example, as the evaluator proceeds through the office checking equipment out-of-service the evaluator shall determine the date of the last inspection of fire extinguishers, judge housekeeping and note any safety hazards. Evaluation notes should be made in the appropriate sections of the review form, bringing together all comments on a topic.

2.10 The evaluation summary report (Appendix 1, Attachment 2) will be provided for each Central Office Review to list any comments and for banding the 9 major categories as shown in Paragraph 1.09.

2.11 The local central office supervisor must accompany the evaluator throughout the visit. Advance arrangements should be made for the visit and for assistance of the central office supervisory personnel.

2.12 Time spent on the central office review should be sufficient to appraise the effectiveness of the operations. It is not intended that unlimited time be spent on in-depth probing of every inviting facet of the central office job. Suggested time schedules for the various categories of the central office review (for large offices) are as follows:

Category	Minutes
Power Plant Equipment	60
Cable Pressurization Equipment	15
Distributing Frames	60
Trunk Orders & Misc. Records	15
Quality Control and Training	30
Trunks & Equipment Out of Service	30
Alarms, Alarm Handling	15
Western Electric Co. Activity	15
Safety, Security, & Housekeeping	30
Miscellaneous	30
TOK & FOK Analysis	30
Stuck Sender Administration	15
Controlled Maintenance	135
Total	8 Hours

Time for the controlled maintenance category included a survey of equipment which may require from 20 minutes in a small CDO to 60 minutes in a large central office. It is understood that some large central offices may require additional time for an effective evaluation review.

2.13 The Central Office Quality Control - Central Office Review format is the same for all switching systems, regardless of size. The assembly formats contain space for office identification, performance indicators, evaluation result recommendations, a check list of items for review, and space for notes on items found to be unsatisfactory. Each item for review is preceded by ( ) for fill in by the evaluator as follows:

( ) = Satisfactory

( ) = Not Satisfactory - See Note

(-) = Item Not Applicable

(.) = Item Applicable - But Not Checked - See Note

The evaluator's basis for item review shall be approved System and Company practices, Company policies, Area and Local practices when such Area and Local practices are not in conflict with approved System or Company practices.

2.14 An important part of the Plan is the review meeting and discussion of results with local supervision and higher levels of management. The place (preferably the central office) and the time of the review meeting should be established in advance of the central office visit. The meeting place and time should be made known to central office supervision up to and including the District Manager.

2.15 Copies of written reports of the central office review, with recommendations, (reviews conducted by C.O. Quality and Production Supervisors) shall be forwarded to Company and Area Headquarters. The General Manager will furnish distribution to Division and District as desired.

3. CENTRAL OFFICE ADMINISTRATION

3.01 Trunk Orders and Miscellaneous Records - Examine the current trunk record and trunk order files. Are the records and orders complete in all details? Are traffic measuring records current and is traffic measuring equipment in agreement with current records? Are equipment and special circuit layout records current and complete? Are turn up test results (Form E-2545A) available and complete? Are automatic test frames updated with trunk order activities? Are traffic register changes made in connection with trunk orders? Examine frame and equipment wiring placed or removed on recent orders. Examine the transmission and noise test records on recent orders. Verify recent marker and decoder orders - as appropriate. Any past due trunk orders? Any recent trunk orders with due date missed? Are carrier group alarm and trunk make busy records complete and current?

3.02 Quality Control and Training - Examine the work error control, work evaluation, and training records. Are work errors considered to be a problem? Do the work error control records indicate a need for group or individual training? Are work evaluations performed for each employee - do these records reveal a need for individual training? Are training records complete and up to date? Is on-the-job training performed as the need becomes known? Has formal training been forecasted and is formal training scheduled? What types of supervisory follow-up is performed on formal training? Is the experience level of the force considered adequate to meet both present and long range office requirements? How many of the group are considered management candidates? What are the programs for development for management candidates?

3.03 Trunks and Equipment Out Of Service - Examine trunks and equipment out of service logs. Are the logs current and complete? Do the logs reflect all out of service equipment conditions? How does the supervisor use these logs? When was the last supervisory walk thru for equipment busied? Do these logs reflect the present office condition regarding busied equipment? Are out of service tags present for all busied equipment? When was equipment busied? Is supervisory follow up adequate for effective control on busied equipment? Is outage of equipment properly counted on service measurement plans?

3.04 Alarms and Alarm Handling - What are office instructions for handling permanent signals? Are permanent signals considered to be excessive in view of office load and balance problems? What methods are utilized for clearing permanent signals - are logs maintained? Any analysis value from P.S. log? What are instructions for handling call block alarms? Are call block alarms frequent - Are these alarm conditions investigated on occurrence and logged? Any analysis value from call block alarm log? What are instructions on handling other types of office alarm conditions? Are "T" tickets generated for each alarm which requires corrective effort? Any analysis value from log of alarms where corrective effort was not required? How are building equipment alarms handled? Any service or safety factors involved with building equipment alarm causes? Examine the logs and instructions

associated with "un-attended office operation". Do these agree with Section 201-601-903SW - specifically paragraphs 3.02, 3.03, 3.04, and 3.05? If they do not agree with the practice, take time to review the Section and requirements with local supervision.

3.05 Miscellaneous - The Bell System Practice files, circuit description and drawing files should be reviewed for updating procedures - as occasions arise the evaluator may check for receipt and filing of recent issues of BSP or receipt and filing of drawings and CD's on recently installed equipment. Has physical work unit inventory on equipment been made recently? Are back-up record work sheets kept? Examine recent time reports - are hours properly charged? How effective is overtime control? Check transmission measuring supplies and test lines - actual measurements with calibrated test equipment. How is portable test equipment stored when not in use? What is the condition of this test equipment? Any test equipment not used which could be used elsewhere or centrally stored for more effective use? Is all traffic measuring equipment presently operational - what are recent traffic measuring equipment performance results? Is the LIT equipment operational? When was LIT detector last calibrated? Are LIT indications being received, tested, and are failures dispatched? Is the LIT program productive? Have line load control activation criteria been developed for this office - is it posted? Have LLC tests been performed per ETL frequency? Are ESS translation forms complete and correct? What is the status of ESS generic overwrites? Are all overwrites logged? Is automatic trunk test programmed to run daily? Is there a procedure readily available to aid maintenance personnel in restoring all applicable input messages after a system initialization has occurred in the ESS office? Are the ESS auxiliary test programs and associated documentation available for use? Are continuious recent change back-up tapes being maintained between updates?

3.06 Stuck Sender Administration - What are the instructions for handling stuck senders? Is the stuck sender rate high? What affect do stuck senders have on service results? On TOK and FOK customer report rate? On reports to the Network Service Center? What percent of stuck senders are traced? What is the method of tracing stuck senders? Are trace tickets complete? How are trace tickets filed? Are stuck sender tally sheets utilized? Is the analysis file or tally on stuck senders productive? Observe the handling of stuck senders during the evaluation visit - Are there indications of excessive holding (quantity and interval) for trace during the office busy hour? Is automatic test frame equipment uitilized (trunk and sender) to advantage for control of stuck sender causes? Are problems evident which require attention by other work groups or departments? Are these problems being resolved? Is adequate analysis being performed on ESS receiver and transmitter time-outs (TN-08)?

3.07 TOK and FOK Analysis - Where is the Analysis of TOK and FOK customer reports performed? Has the analysis of these reports been productive - are investigation tickets issued for central office investigation? Is C.O. investigation productive? How is automatic test frame equipment used for detection of failure conditions which cause TOK and FOK reports? Is the analysis of TOK and FOK reports blended with other analysis or trouble indications - i.e.: office alarms, known switching failures, LIT detected line trouble conditions, etc.?

4. CORRECTIVE MAINTENANCE

4.01 (a) Controlled Maintenance Plan(s) - The evaluation of the Controlled Maintenance Plan and the associated administration of the CM Plan offers an opportunity for the evaluator to listen to the office supervisor. Questions which will help to evaluate the effectiveness and benefits of the CM Plan should be directed to the office supervisor so he may reveal how the CM Plan is being used and administered.

(b) Corrective Maintenance - Examine all corrective records with the office supervisor - trouble tickets, CO log, control record, transmission and signalling equipment, trouble summary, sender tally, trouble tally, and the ticket file.

4.02 What supervisory checks are conducted to assure that "T" tickets are being prepared for all classes of corrective effort? Are all class report tickets evident - such as: operator "DSA" reports, DDD service bureau reports, Traffic intercept error reports, billing service investigation reports, traffic measuring equipment trouble reports, alarms? What does the test center say about central office clearing time and report back procedures? What is the average CO clearing time on Class "A" reports - last month, the month before? How are CO quality - work evaluations made: On CO tickets and on work done as shown on tickets? Are tickets being prepared for preventive efforts?

4.03 How are the central office logs used? Where are current logs kept? What type of information entries (other than tickets) are made on the CO log? Who uses this information? What activities are taking place in the office now? How are alarm transfers recorded? Any recent abnormal service conditions such as heavy office load - when - for what duration? W.E. Co. transition activity in progress? At what stage are call block alarms being recorded?

4.04 Who posts information on the control record? How often are entries recorded? Who set the 10 and 20 day objectives? How is the control record used? Are special studies columns used? Are work errors high - W.E. Co. related troubles, intercept errors, billing service failures, ANI equipment failure rate? What has been or is being done to correct adverse performance? Are remarks spaces used to note this action?

4.05 How is the transmission and signalling equipment performance record used? What type of equipment is covered? Are trouble tickets being prepared on outages? Are trouble rates high - what type of equipment - what reaction? Are trouble tickets logged? Are control records kept? Who posts information - how often?

4.06 How is the trouble summary used? Is the information on this form complete and accurate - what supervisory checks? How are objectives established? When were objectives last considered for change - up or down? What reaction when objectives are exceeded? Is trouble tally used? Is tally needed? What is the source of trouble summary entries?

4.07 How is the ticket file used? Where is the file located? Is this the most effective location? Who files tickets - before or after supervisory checks? Any backlog of uncleared tickets? What value is placed on the corrective date for decision making on scheduling of preventive work? On review of "MR" type preventive jobs? Can good decisions be made from existing data?

How much of the total force time is now devoted to "corrective effort"? How much last month? Previous month?

4.08 Analysis of Trouble Records and Registers - The current day-to-day analysis of trouble records and failure registers is a necessary function of the central office maintenance force. This analysis should provide for the detection of service affecting and marginal equipment failure conditions. Are the number of "T" tickets generated from the analysis of trouble records considered reasonable in view of the equipment failure rates? Are first trial failure rates indicative of trouble conditions which require attention? What action has been or is being taken on equipment causing first trial failures? How are equipment failure registers used? Does the review of these failure register readings (E-4744) reflect a need for action to control failure rates? What procedures are employed on line originated trouble records? Has the analysis of line originated failures proven productive in the clearance of line conditions which could cause customer reports? Is analysis file maintained for ESS printouts of system audits, maintenance interrupts, switching network failures and equipment diagnostic failures? Are adequate analysis being preformed on hourly printouts, midnight routines and daily plant measurement counters in ESS offices? Is ESS printout analysis effective?

5. PREVENTIVE MAINTENANCE MANUAL

5.01 Preventive Maintenance Manual - Examine all preventive records with the office supervisor - equipment test lists and associated job schedule, test and inspection summary, sampling records, selective maintenance program records and associated administrative records.

(a) Are ETL files complete? How are the ETL files updated? Have most recent ETL supplements been processed? Have all applicable test and inspections been assigned a job number? Have all local test and inspection jobs been added to the ETL? Are all applicable jobs scheduled? Does the assigned job frequency and the ETL frequency match? How are "MR" class jobs handled? Any "MR" jobs recently completed? How are "TF" jobs scheduled? Does this schedule effectively utilize automatic test frame equipment? Does the condition of equipment justify the "TF" jobs schedule? How are trouble test (TT) used?

(b) Are test and inspection summary forms complete and currently posted? How are jobs assigned to the employee? How often are jobs assigned? Is the work order form used? How many outstanding past-due jobs? How many hours are represented by last month's jobs - this month's jobs - next month's jobs? Are preventive jobs being performed on schedule? How many preventive hours for the current year have been deferred? What type of scheduled jobs (tests and inspections) are not being performed? Does the deferral of these jobs affect present service and office performance? Is rescheduling of jobs done with consideration for needed preventive work? Does the monthly scheduled hours and the available force hours for preventive work match? Are the monthly scheduled hours shown on Form E-5845?

5.02 Preventive Maintenance - Central Office Maintenance Management System (COMM) - Examine all COMMs preventive Maintenance Records with the office supervisor - Two year schedule, where are work orders kept after completed?

(a) How are the computer inventories updated? Have the most recent equipment changes been processed? Are ETL files complete? Have all local test and inspection jobs been added to COMMS inventory? Are all applicable jobs scheduled? How are trouble tests (TT) used? Are they receiving monthly work list and work orders? Are work orders being completed on time? Are test frame jobs being scheduled? Does the condition of equipment justify the "TE" jobs schedule?

(b) What is the condition of the sample of equipment reviewed? Does the monthly scheduled hours and available force hours for preventive work match? Analysis of monthly administrative reports? How many preventive hours for the current year have been deferred?

5.03 Is the foreman's report used - how - what action results from the monthly foreman's report? Does the 2nd level supervisor maintain the Central Office Forecast and the Job Control - Form SW-6486? How is this form used? Are work evaluations performed on preventive jobs - after completion and in progress? Are these evaluations recorded? What do these evaluations reveal?

(a) What type troubles are being detected by use of automatic test frames? Are test frames set to detect marginal failure conditions? Do the test frame results indicate a need for performance of selected preventive maintenance tests? For sampling?

(b) What type of reconditioning work is in progress now? How was the need for this work determined? Will this work be productive from a long range service standpoint? Is this work needed now? When will this work be completed?

(c) Are scientific sampling procedures used? How? What are the results of recent samples? Does any of the corrective data indicate a need for sample on any equipment?

5.04 Do records, tickets, and routines indicate switchboards are being maintained? Are controls provided to keep busied out equipment to a minimum? Are instructions posted in Traffic on who to contact in Network Maintenance whenever trouble warrants attention?

5.05 Effectiveness of the CM Plan(s) - Has the application of controlled maintenance for this office achieved a desired balance between corrective and preventive efforts? Is there an effective control on office performance and maintenance costs? Are established objectives being attained? Do the present maintenance efforts provide assurance for future office performance? Is the experience level of the office force being utilized? Is the knowledge and experience of the office force being expanded? Will the existing CM Plan records allow for office maintenance continuity when office supervision changes occur? How are CM Plan records maintained? Are past 12 month records available?

5.06 Review Format - All Offices - A copy of the Central Office Quality Control - Central Office Review Format for All Offices, is included in Appendix 1 to this Section. Page 6 of the format is a ruled sheet for notes by the evaluator. Format assemblies may be secured by ordering additional copies of Appendix 1.

6. POWER EQUIPMENT

6.01 Power Plant Equipment - Failure of power plant equipment can result in major service impairment affecting all

services furnished by the central office. Neglected power equipment can present a service hazard, reduce anticipated equipment life and increase maintenance costs.

6.02 Power Plant Maintenance - Check the power plant equipment test lists (ETL) file for availability of current issues, and the COMMS inventor for completeness and scheduling of all applicable jobs. Have all applicable jobs been scheduled and have all scheduled jobs been performed on schedule? Has the supervisor conducted quality checks on in-progress and completed jobs and recorded the results of these work evaluations? Does the condition of the equipment and records, as found on review, recommend additional control on quality by the supervisor? Are power plant maintenance files complete, up-to-date and orderly? Are current issues of practices, drawings and circuit descriptions available for use? Is the supervisor and employees technically capable in power plant supervision or additional employee training required? Has needed training been scheduled?

6.03 Batteries - All Power Plants - (including emergency engine starting, emergency cells, CEMF, etc.) Are batteries floated at correct voltage? Is electrolyte level correct? Do records reflect abnormal requirements for water additions? If using local water for batteries, is the water analysis made annually and are records of analysis being maintained? Are battery and bus connections and intercell connectors clean, tight, and free of corrosion? Has NO-OX-IDE grease been used correctly? Are the cells, battery stands and floor area clean, free of dust accumulation, and free of electrolyte corrosive markings? Examine battery records - Are readings complete and on proper form? Do the records reveal problems which require attention? Sample cell voltage readings - do these readings compare cell voltage readings - do these readings compare with most recent individual cell voltages as recorded? Any erratic cell voltages? Has boost charge been performed when required? Are boost charge records complete? Are records for the battery strings complete from original turnover to the current year? Measure the in-service CEMF cell(s) voltage - is the measured voltage within specified limits? Any indication that the CEMF cells are undersized from capacity standpoint? Is adjustable CEMF resistor restrapping required to render correct discharge bus voltage? What are the ages of the cell strings? Do any of the strings require capacity testing? Have capacity tests been scheduled? Does the general appearance of cells reveal problems which warrant further investigation?

6.04 Ringing Plant Equipment - Does the general appearance of the ringing plant equipment reflect proper maintenance? Do the commutators, collector rings, interrupters and brushes reveal the need for corrective action? Check the ringing plant meter output - Are ringing voltages within specified limits? Do variations in voltage under-load conditions indicate control or load problems which require investigation? Check CAM driven interrupter spring assembly contacts for follow and contact wear problems which require attention. Are ringing machine worm gears worn? If there a notable audible difference between the regular and spare supply on dial tone? Is the spare ringing machine available for service? Will the ringing plant function for transfer on the various failure conditions? Are proper alarms displayed and transmitted on transfer conditons? Doew the manual transfer (non-failure) perform correctly? Simulate a commercial AC failure for the ringing plant (remove AC supply fuse) and observe the automatic operation for transfer, restore the commercial AC supply fuse and observe

the automatic operation for restoral. Check the various ringing plant battery supplies (trip, superimposed and coin control). Do the voltages of these supplies meet practice and circuit (SD) test requirements? Are the ages of these cells satisfactory to assure service conditions? Where the coin control supply is furnished from the ringing machine - does the measured voltage meet requirements of circuit (SD) and operating limits of the equipment served? Are all components of the ringing plant equipment available for service? Are alarms being tested on TT dial tone plants? Are normal transfers being made and voltage checks taken on TT dial tone supplies?

6.05 Emergency AC Power Equipment - Does the general appearance of the emergency engine set and all associated equipment reflect proper maintenance? Are any problems evident regarding the fuel, fuel supply, oil system, ventilation, exhaust, or cooling system? Are operating instructions posted? Is the operation log current and complete? Does the operation log reveal problems which require additional attention? Review the most recent annual load test results - any problems evident regarding voltage regulation frequency, capacity - for this emergency plant? Has emergency engine shut down been provided and is the point of shut down control at a safe location? Is emergency lighting in the engine start area furnished and operational? When was the last commercial AC failure - How are commercial AC failures handled and recorded? Ask that the engine-set be started and run with load - any problems regarding need for training? How many of the present force are technically capable on engine-set start, transfer of load and running of the engine-set? Are personnel trained in the operation of emergency engines? Is the oil analysis procedure being followed? Is a portable, mobile, or fixed emergency AC plant housed and maintained at this CDO location? If yes, review the AC plant and associated records as follows:

(a) Are operating instructions complete and posted?

(b) Does the operation log reveal problems which require attention? Request a test run with load - any problems regarding fuel, fuel supply, oil system, cooling system, voltage regulation, frequency or capacity for this emergency engine? Any problems or need for training on emergency engine operation? Review Forms SW-6437 and SW-6438 (Section V61.032, Appendix 1) for completeness.

(C) Are there written procedures for handling AC power failure conditions? Are these procedures considered adequate for this specific location?

6.06 Charge Equipment - All Power Plants - Check rotating motor-generator sets - do the commutators reflect a need for action to correct streaking, threading, grooving, copper drag, pitch bar-marking, or heavy slot bar-marking? Is brush stagger correct? Do brushes require replacement? Any evidence of need for improved commutation? From a visual and audible inspection - Does the charge power equipment require maintenance attention? Are all installed charge units available for service? Is each idle charge unit capable of assuming load on insequence basis (automatic or manual power plants)? Request checks on this capability. Are all charge unit controls adjusted to achieve porper "float" voltage output? -

"Charge" voltage output? Is the sum of current output for all units equal to the load on the charge power plant approaching capacity during the office busy hour? Any maintenance spare (reserve) charge units? Are the end cell rectifiers adjusted to render proper float for the emergency cell? What is the procedure for recharge of emergency cells after power failure use?

6.07 Alarms, Panels, and Miscellaneous Power Plant Equipment - Throughout the power plant evaluation observe alarms and lamp indications. Have power plant meters been checked and calibrated within required time period? Are spare fuses available for all sizes in service? Have all fuse panel fuses been checked for age, size, and heating? Are rubber gloves, fire extinguishers, fuse pullers, goggles, counter cell equipment, soda and other supplies available and up-to-date? Check end cell switches and contact shunts. Check for hot bus bars, connections, switches, and contactors. Is there any known reason why an AC power failure simulation should not be performed? (Simulated AC power failure checks should be conducted during periods when service is least likely to be affected. Power failure checks should not be conducted when power plant apparatus or equipment is suspect. Reasons for not conducting AC power failure checks should be noted on the format report for local supervisory follow-up purposes.) If satisfied, request a power plant AC supply failure and observe the automatic operation and alarms for the associated power plants. Leave the AC power off only long enough for the "GI" end cells to operate or to cut out "GI" CEMF resistors as appropriate. Observe the proper voltage point of operation. Note the elapsed time from AC failure to "GI" operation as an indication of battery reserve capacity. Observe alarms and lamp indications. Request restoral of AC power for the associated power plants - and observe for automatic operation restoral of the power equipment. Examine the end cell switch shunts after the switch load to the "GI" end cells. When was the last power drain study on power plants conducted? Does rotating machinery have safety decals posted? Check Central Office ground for clamp and tag and if grounded to water pipe, make sure water meter is properly strapped around. Check cable vault for housekeeping. Are all ducts plugged and water tight?

6.08 Supplementary Information - Record (in appropriate spaces on the evaluation form) the codes of the various power plants.

7. FRAME ADMINISTRATION

7.01 Distributing Frames and Other Wiring - Distributing frame activity troubles account for a large part of the total found central office caused customer reports. Make a general quality inspection of the distributing frame noting items which require attention to the total frame quality. Select service order frame copies (for current work) and request the supervisor to perform the work evaluations. What is the general condition of the distributing frames? Is maintenance effort required to clear existing defects? What is the quality of current work? Does testing effort on completed work require attention? Are SSM/SSP markings complete? Do employees use proper tools and are tools in good condition? Have daily service orders been completed in time to prevent delay to other work forces? Is short jumper administration effective on ESS Modular and Cosmic frames? Do all employees use safety glasses? Are other safety aspects of the frame job considered in the day-to-day activities? Is the frame

area safe from a housekeeping standpoint? What are precedures for handling and disposition of scrap jumper wire? Are material and supplies available for use and stored properly? Any excess supplies? What is the procedure for handling the frame work load: service orders, trunk orders cable and line transfers, routine work? What supervisory controls have been established and used to reduce and control record errors and work errors? Is the activity log being used? What method is used to measure the force productivity? Are work unit tallies updated currently? What are the existing roadblocks which require attention to improve productivity? Do present methods contribute to service problems?

8. SAFETY - SECURITY - BUILDING

8.01 Safety - Security, and Housekeeping - The evaluator should be alert to safety hazards, unsafe equipment, and employee work habits. He should examine safety equipment, tools, storerooms, storage cabinets, building items, equipment room access, and housekeeping. Does the equipment room have positive air pressure? These items can best be evaluated as they are encountered on the office walk thru or as other factors are reviewed. The safety program - safety meeting minutes may be reviewed as part of training records review. Building and equipment room security should receive special attention through the evaluator's visit.

8.02 Cable Pressurization Equipment - Are all standby drum valves open to the manifold? Examine the air usage logs. Is a reasonable supply on hand to allow drum replacement in the event of compressor - dehydrator failure? Is the compressor - dehydrator overloaded? Are all applicable test and inspection jobs scheduled and performed on schedule? Conduct tests on the humidistat and pressure alarms. How are the cable contactor alarms handled? How many contractor alarms are operated?

9. AMA - BILLING

9.01 Automatic Message Accounting - Check the AMA master timers - are the even and odd timers in SYNC? Are time indications as shown on display correct - "central standard"? How are AMA equipment alarms handled? What use of the straddle and study analysis for correcting AMA problems? Review copies of recent E-4104 for equipment and handling problems.

9.02 Automatic Number Identification - Review the handling of ANI equipment failures - does the trouble ticketer output receive frequent attention? Are ANI failure registers recorded and reviewed for abnormal conditions? Are ANI verification tests made on all service order activity? Any reports from the serving CAMA location on "IF", "ANF", "NIT", etc.? How are reports from the DDD service bureau handled? Review "T" tickets from DDD bureau sources. Are the ANI register readings being recorded daily? What use is being made of register readings? Is the ANI test frame being used? Are ANI preventive jobs scheduled? What is the status of preventive schedule jobs?

10. W.E. COMPANY ACTIVITY

10.01 Western Electric Company Activity - Are job coordination meetings between Network Maintenance, Dial Administration, Engineering, and Western Electric installation a standard procedure on central office equipment additions? Does the office supervisor have copies of recent meeting minutes? How is equipment outage (quantity and duration) determined? Are methods-of-procedure prepared, concurred in, and followed by all affected groups? Review recent or in-progress M.O.P. Are the M.O.P.'s signed by the Telephone Company Network Maintenance representative, Dial Administration representative and the Western Electric Company supervisor? Are Western Electric Company

work errors documented? What methods of control on these work errors? How does the office supervisor and Western Electric supervisor communicate for maximum efficiency of installation with minimum service interruption? Is the office supervisor familiar with contents of Section 201-112-001 and related 201-112-XXX Bell System Sections? When were thess practices last reviewed? Is the office supervisor familiar with job acceptance procedures outlined in Southwestern Bell Sections 010-300-30XSW? Are applicable procedures of these practices being followed?

11. CENTRAL OFFICE COIN EQUIPMENT

11.01 Is the office equipped with a single slot coin test phone? Is the test line "built out" for maximum loop resistance? Is there a copy of the Coin Crafts Manual in the Central Office? Are coin routines being performed per revised ETLs per letter P20.002, June 17, 1977? Are coin routines current? Is any coin equipment made busy? Do the customer reports on coin service indicate the need for further analysis of coin troubles? Any coin equipment failures on tests made in connection with review?

12. FRAME FORCE MANAGEMENT PLAN (FFMP)

12.01 During each central office review of a class 5 switching office a check will be made to insure that the Frame Force Management Plant (FFMP) is being used properly. Plant Administration Practice V63.104 provides that the FFMP will be used in each central office. The degree of implementation will depend upon the size of the office. Section 201-200-010 and its associated Southwestern Bell Addendum give details of the plans operation.

12.02 The FEMP will be reviewed using Attachment I, Frame Force Management Plan. This overall effectiveness of the FEMP will be summarized in Item 3, "Effectiveness of FFMP". An unsatisfactory rating in this category will automatically result in a Band D rating for Frame Administration.

13. POST REVIEW MEETING AND REPORTS

13.01 On completion of the central office review, a meeting should be held to discuss the findings with local supervision. This meeting is a vital part of the plan and should not be omitted.

13.02 On completion of several central office reviews within a District (consecutive), or within a Division, a meeting should be held to discuss the findings with the District Manager or the Division Manager. These meetings should include discussions on problems - common within the District or Division and discussions or recommendations made by the Quality and Production Supervisor.

13.03 The Quality and Production Supervisor will meet with the General Manager or his staff for discussion on central office reviews when the General Manager's request for review is made known to the Quality and Production Supervisor. The Quality and Production Supervisor will prepare 2 copies of the "Central Office Quality Control-Central Office Review" and shall forward to: General Manager - 1 copy: District Staff Manager - Network Maintenance (at General Headquarters in St. Louis) 1 copy.

3. CENTRAL OFFICE ADMINISTRATION

3.01 Trunk Order & Misc. Records

( ) a. Trunk order records
( ) b. Traffic measuring equip. records
( ) c. Cross connection records
( ) d. Special Service - ckt. layouts
( ) e. Ckt. or Trunk testing E-2545A
( ) f. Current index
Trans: _____
Noise: _____
( ) g. CGA/TMB records

3.02 Quality Control & Training

( ) a. Work error control
( ) b. Work evaluation records
( ) c. Formal training requirements
( ) d. O.J.T. training requirements
( ) e. Training schedules
( ) f. Training records
( ) g. Supv. follow-up
( ) h. Force experience level

3.03 Trunk & Equip. Out of Service

( ) a. Physical verification
( ) b. Trunk out of service list (TTY)
( ) c. Junctor out of service list (TTY)
( ) d. Record & control outage logs
( ) e. Equip. out of service (TTY)
( ) f. Tickets
( ) g. O.S. tags (S-6124)
( ) h. Follow-up on equip. & trunks out of service

3.04 Alarms & Alarm Handling

( ) a. Perm. signal handling
( ) b. Call block alarms
( ) c. Equip. alarms logs/tickets
( ) d. Building equipment alarms
Unattended - BSP 201-601-903SW
( ) e. Test instructions receiving location - Para 3.02
( ) f. Test instructions originating location - Para 3.03
( ) g. Log prepared (SW-9112 A, B, C receiving location - Para 3.04
( ) h. List of alarms & indications from receiving location - Para 3.05

3.05 Miscellaneous

( ) a. Maintenance files
Bell System Practices
Drawings - CD's, SD's, T's etc.
Software documents
( ) b. ESS translation forms
( ) c. Program overwrite records
( ) d. Program overwrite status
( ) e. Automatic trunk test
( ) f. Phase 4 & higher procedures
( ) g. Phase 5 & higher procedures
( ) h. Work unit inventory - back up
( ) i. Transmission test equipment
( ) j. Test set equipment
( ) k. Traffic measuring equipment
( ) l. Line load control
( ) m. LIT program
( ) n. Recent change backup tapes
( ) o. Time reports

3.06 Stuck Sender Administration

( ) a. Stuck sender rate Tok/Fok
( ) b. % stuck senders traced
( ) c. Equipment holding - busy hour
( ) d. Trace tickets - completeness
( ) e. Analysis of traces - tally
( ) f. Analysis of traces - ticket file
( ) g. Trace analysis productive
( ) h. Use of test frames SS control
( ) i. Analysis of trans. & recv. time outs (TN08)

3.07 TOK & FOK Analysis by Test Center & CO

( ) a. E-4086 or use of mechanized data
( ) b. Investigation productive
( ) c. Test frame usage - Tok/Fok

_____
_____
_____

4. CORRECTIVE MAINTENANCE

4.02 Trouble tickets

( ) a. Report details
( ) b. Action taken
( ) c. Equip. & cause coding
( ) d. Report close & clearing time
( ) e. All class tickets
( ) f. Foreman's check

4.03 Central Office Log

( ) a. Certain memo tickets
( ) b. Carried over entries
( ) c. Other activity recorded
( ) d. Abnormal condition recorded
( ) e. Alarm transfer recorded
( ) f. M.O.P. progress
( ) g. Call block alarm record

4.04 Control Records

( ) a. Posting "T" tickets/registration
( ) b. Objectives established
( ) c. Use of posted objectives
( ) d. Use of special studies
( ) e. Action on adverse trends

4.05 Trans. & Signaling Equipment

( ) a. Equip. trouble ticket E-5840
( ) b. Central office log E-5457
( ) c. Equip. control record E-5841 A,B,C,D
( ) d. Equip. performance summary E-5842

4.06 Trouble Summary

( ) a, Accuracy of data posted
( ) b. Objectives established
( ) c. Use of posted objectives
( ) d. Action on adverse trends
( ) e. Trouble tally used when needed

4.07 Ticket File

( ) a. Equipment group bins
( ) b. 3 month rolling file
( ) c. Memo tickets & pending work
( ) d. Trace ticket file
( ) e. Use of file - action taken

4.08 Analysis of Trouble Records & Register

( ) a. "T" tickets vs trouble rate
( ) b. 1st trail failure - action taken
( ) c. Line orig. trouble records - action taken
( ) d. Common control failure register data used
( ) e. Hously printout analysis
( ) f. Midnight routine analysis
( ) g. Audit analysis
( ) h. Maintenance interrupt analysis
( ) i. Network analysis
( ) j. Daily plant measurement analysis

5. PREVENTIVE MAINTENANCE

5.01 Preventive Maintenance

( ) a. ETL file complete & current issue
( ) b. Applicable test & inspection assigned job numbers
( ) c. E-5450 issued for local jobs
( ) d. Classification & frequency changes
( ) e. Test frame jobs scheduled
( ) f. Test & insp. summary E-5453, E-5454
( ) g. Multiple job assignment E-5455
( ) h. Work order (E-5452)
( ) i. E-5845 MW, MR, TF complete
( ) j. E-5845 frequency match ETL
( ) k. Status of preventive jobs
( ) l. Analysis of test frame jobs
( ) m. Selective maint. programs
( ) n. Status of selective programs
( ) o. Equip. survey sample results
( ) p. Scheduled jobs-available force
( ) q. Current year deferred hrs._____

( ) r. Work evaluations preventive job
( ) s. Foremans report (SW-6498)
( ) t. Central office forecast (SW-6486)

5.02 Preventive Maintenance Comms

( ) a. ETL (work item list) complete & current
( ) b. Local job on schedule
( ) c. Monthly work list & work orders
( ) d. Status of work orders
( ) e. Analysis of test frame jobs
( ) f. Selective maint. programs
( ) g. Status of selective programs
( ) h. Equip. survey sample results
( ) i. Scheduled jobs-available force
( ) j. Monthly administrative reports
( ) k. Current year deferred hrs._____
( ) l. Work evaluations preventive job
( ) m. Foremans report (SW-6498)
( ) n. Central office forecast (SW-6486)

5.03 Traffic Switchboard Operation

( ) a. Switchboard appearance
( ) b. Operator tel. circuit
( ) c. Operator tel. set
( ) d. Switchboard cords & plugs
( ) e. Lamps & indicating signals
( ) f. Applicable test & inspection assigned job numbers
( ) g. Report close & clearing time - tickets

5.04 Effectiveness of Controlled Maintenance Plan(s)

( ) a. Satisfactory
( ) b. Retention of CM plan records

6. POWER EQUIPMENT

6.02 Power Plant Maintenance

( ) a. ETL file - complete, current
( ) b. Preventive job schedule
( ) c. Preventive job status
( ) d. Work evaluations - quality
( ) e. Maint. files (BSP's CD's, etc.)
( ) f. Plant(s) operation training

6.03 Batteries

( ) a. Float voltage
( ) b. Water level
( ) c. Connections
( ) d. Appearance
( ) e. Records
( ) f. Cemf. cell voltage
( ) g. Age/capacity
( ) h. Water analysis records

6.04 Ringing Plant Equipment

( ) a. Appearance
( ) b. Commutator & brushes
( ) c. Interruptor contacts
( ) d. Voltage output
( ) e. Dial tone output
( ) f. Transfer feature
( ) g. Trip supply
( ) h. Superimposed supply
( ) i. Coin control supply
( ) j. Available for service
( ) k. Converters
( ) l. Gears
( ) m. T.T. dial tone supply

6.05 Emergency AC Plant Equipment

( ) a. Appearance
( ) b. Start batteries

( ) c. Fuel supply & oil system
( ) d. Ventilation, exhaust & cooling systems
( ) e. Operating instructions
( ) f. Operation log - E-5697
( ) g. Load test results S-6956
( ) h. Emergency shut down
( ) i. Voltage & frequency
( ) j. Capacity
( ) k. Engine room emergn. lighting
( ) l. Power failure records S-6130
( ) m. Training records
( ) n. Work evaluations
( ) o. Oil analysis records
( ) p. SW-6437 applied if portable available
( ) q. SW-6438 in office/no fixed equip.
( ) r. Emergency procedures posted
( ) s. Engine operation

6.06 Charge Equipment - All Plants

( ) a. Commutators & brushes
( ) b. Appearance
( ) c. Available for service
( ) d. Voltage output
( ) e. Current output
( ) f. Capacity & reserve
( ) g. End cell rectifiers

6.07 Alarms, Panels & Miscellaneous

( ) a. Power plant alarms
( ) b. Automatic operation
( ) c. Fuse & fuse panels
( ) d. Spare fuses available
( ) e. Meters (calibration)
( ) f. Tools & materials
( ) g. Safety equipment
( ) h. End cell switching
( ) i. Power drain study - SW-6623
( ) j. Contactors & switches
( ) k. Rotating machinery E-6505

6.08 Supplementary Information

a. Ringing Plant Code:_____
b. 48V Plant Code:_____
c. 24v Plant Code:_____
d. +130V Plant Code:_____
e. -130V Plant Code:_____
f. Emergency AC Plants_____
_____
_____
_____

7. FRAME ADMINISTRATION

7.01 Distributing Frames and Other Wiring

( ) a. General Condition
( ) b. Current work quality
( ) c. SSM/SSP verification
( ) d. Turn up testing
( ) e. Tools (condition usage)
( ) f. Safety
( ) g. Housekeeping
( ) h. Supplies & materials
( ) i. Short jumper administration
( ) j. Frame control records
( ) k. Activity logs
( ) l. Work unit tally
( ) m. Daily work completed on time
( ) n. Security control
( ) o. Terminal location guides
( ) p. Effectiveness of FFMP

8. SAFETY - SECURITY - BUILDING

8.01 Safety - Security - Housekeeping

( ) a. Safety equipment
( ) b. Safety program
( ) c. Accident Prevention Plan
( ) d. Fire equipment
( ) e. Tool inspection records
( ) f. Storage of materials
( ) g. Building equipment
( ) h. Building equipment records
( ) i. Building condition

( ) j. Controlled access
( ) k. Admission procedures
( ) l. Other work force activities
( ) m. Dust control
( ) n. Clean orderly
( ) o. House service work schedules
( ) p. Equipment room positive air
( ) q. Central office ground
( ) r. Cable bonding C.O. vault

8.02 Cable Pressurization Equipment

( ) a. Standby supply
( ) b. Usage
( ) c. Alarms - test results
( ) d. ETL job schedule
( ) e. ETL job status
( ) f. Cable contactor handling
( ) g. Compresser equipment

_____

_____

_____

_____

9. AMA BILLING

9.01 Automatic Message Accounting

( ) a. Master timer or system clock
( ) b. Straddle & study analysis
( ) c. E-4104 review

9.02 Automatic Number Identification

( ) a. ANI failure control
( ) b. ANI failure register data recorded
( ) c. ANI equipment
( ) d. ANI preventive job schedule
( ) e. ANI preventive job status

10. W. E. COMPANY ACTIVITY

10.01 Western Electric Company Activity

( ) a. Job coordination meetings
( ) b. Equipment outage control
( ) c. MOP (establish & adherence)
( ) d. Work error control
( ) e. Housekeeping
( ) f. Job acceptance procedures
( ) g. Safety precautions
( ) h. Proper authorization of MOPs

11. CENTRAL OFFICE COIN EQUIPMENT

11.01 C.O. Coin Equipment

( ) a. Single slot coin test phone
( ) b. Proper resistance in test line for max. ext. loop
( ) c. Coin Crafts Manual
( ) d. ETL per P20.002 6/17/77
( ) e. Preventive job status
( ) f. Coin equipment made busy
( ) g. Customer report rate - coin service
( ) h. Coin Equipment

APPENDIX 1

CENTRAL OFFICE REVIEW

S X S

Division _____ District _____

Office _____ City/Town _____

Type Equipment _____ Lines _____ Numbers _____

Total Working Stations _____ Review Date _____

Last Review Date _____ Q&P Supv. _____

Review of Findings with: (Name, Title, Date)

_____

_____

_____

_____

SXS Network Switching Performance Measurements Measured Components: E-6424A				Latest 6 Months		
Dial Tone Speed						
Equip. Irregs.						
% R.O./N.C.						
ANI OPF/SAMA TV						
ANI OSF/SAMA REC						
ANI 2TF/SAMA SS + ID						
Equip. Code 5 + 8						
Frame Code 5						
Total Index						
Performance Indicators (Soft Spot)	___of___	___of___	___of___	___of___	___of___	___of___

Other Data:

Termination Capacity: (Lines) _____ Working Lines: _____

(Terminals) _____ Working Numbers: _____

(Numbers) _____ Engineered: _____ Present: _____

Description of other activity (equipment or building) presently in progress: _____

_____

_____

_____

CENTRAL OFFICE REVIEW

No. 1XB

Division _____ District _____

Office _____ City/Town _____

Type Equipment _____ Lines _____ Numbers _____

Total Working Stations _____ Review Date _____

Last Review Date _____ Q&P Supv. _____

Review of Findings with: (Name, Title, Date)

_____

_____

No. 1XB Network Switching
Performance Measurements
Measured Components: E-6423A

	Latest 6 Months					
Dial Tone Speed						
Stuck Sender						
OM 2TP/DTR						
TM 2TF/MTR						
Transv. 2TF						
% Orig. Ovfl.						
IML						
Equip. Irregs.						
AMA Recorder						
ANI Ident. 2TF						
ANI OPF						
Equip. Code 5 + 8						
Frame Code 5						
Total Index						
Performance Indicators (Soft Spots)	___of___	___of___	___of___	___of___	___of___	___of___

Other Date:

Termination Capacity: (Lines) _____ Working Lines: _____
(Terminals) _____ Working Numbers: _____
(Numbers) _____ Engineered: _____ Present: _____

Description of other activity (equipment or building) presently in progress: _____

_____

_____

_____

CENTRAL OFFICE REVIEW

No. 5 X-BAR

Division_____ District_____

Office_____ City/Town_____

Type Equipment_____ Lines_____ Numbers_____

Total Working Stations_____ Review Date_____

Last Review Date_____ Q&P Supv._____

Review of Findings with: (Name, Title, Date)

_____

_____

_____

_____

No. 5 X-Bar Network Switching Performance Measurements Measured Components: E6420A	Latest 6 Months					
Dial Tone Speed						
Stuck Sender						
Marker 2TF						
Transv. 2TF						
Office Overflow						
Link Release						
Incoming Matching Loss						
Equipment Irregularities						
AMA Recorder						
Equipment Code 5 + 8						
Frame Code 5						
Total Index						
Performance Indicators (Soft Spot)	___of___	___of___	___of___	___of___	___of___	___of___

Other Data:

Termination Capacity: (Lines) _____ Working Lines:_____
(Terminals) _____ Working Numbers:_____
(Numbers) _____ Engineered:_____ Present:_____

Description of other activity (equipment or building) presently in progress:_____

_____

CENTRAL OFFICE REVIEW

CROSSBAR TANDEM

Division_____ District_____

Office_____ City_____

Type Equipment_____ Office Link Frames_____

Last Review Date_____ Trunk Link Frames_____

Review Date_____ Q&P Supervisor_____

Review of Findings With: (Name, Title, Date)

_____

_____

_____

_____

Performance Indicators: Latest 6 Months:

		Components	Failures					
1	Incoming	Register Link						
2		Reg. RO (NSA-SR)						
3		3D Reg. RO (PD)						
4		IOD Reg. RO (PD)						
5		Sender RO						
6		Total						
7		W.E. Co. Test						
8		Net Total						
9	Connecting	Sender No. Mkr. Info.						
10		Matching Loss 2TR						
11		Marker TBL 2TR						
12		Unidentified RO						
13		Total						
14		W.E. Co. Test						
15		Net Total						
16	Outgoing	Stuck Sender						
17		Sender Overload						
18		Total						
19		W.E. Co. Test						
20		Net Total						
21	Ckt.	Intertoll						
22		Toll Completing						
23		Local						
24		Rev. Sdr. N.C. RPRO						
25	No.	Total Switching Failures						

	Incoming	
	Connecting	
	Outgoing	
	Total Switching Service	
	Call Fail Inc. Bill	
	Cust. Ann. or Opr. LD	
	TOTAL INDEX	

CENTRAL OFFICE REVIEW
ATTENDED OFFICE
4A MACHINE

Division _____ District _____

Office _____ City/Town _____

Type Equipment _____ Review Date _____

Last Review _____ Q&P Supervisor _____

Review of Findings with: (Name, Title, Date)

_____

_____

_____

_____

Performance Indicators: Latest 6 Months

	Components	Failures						
1	Register Links (CAMA)							
2	Register Recorder							
3	Stuck Registers							
4	Sender Recorder							
5	Total							
6	W.E. Test							
7	Net Total							
8	Dec./Dch. Tr2							
9	ETS Lost Calls							
10	Matching Lost Calls							
11	Marker TR2							
12	Total							
13	W.E. Co. Test							
14	Net Total							
15	FATR							
16	Stuck Senders							
17	Total							
18	W.E. Co. Test							
19	Net Total							

	Billing Service Component	Failures						
20	Transverters TR2							
21	Recorder							
22	CAMA Sdr. (CAO)							
23	Total							
24	W.E. Co. Test							
25	Net Total							
26	IF							
27	ANF							
28	Total							
29	W.E. Co. Test							
30	Net Total							
	Incoming							
	Connecting							
	Outgoing							
	Total Switching							
	Call Fail Inc. Billing							
	Cust. Ann. or Opr. Ld.							
	TOTAL INDEX							

CENTRAL OFFICE REVIEW

No. 1 ESS

Division _____ District _____

Office _____ City/Town _____

Type Equipment _____ Lines _____ Numbers _____

Total Working Stations _____ Review Date _____

Last Review Date _____ Q&P Supervisor _____

Review of Findings with: (Name, Title, Date)

_____

_____

_____

_____

No. 1 ESS Network Switching Performance Measurements Measured Components: E-6421A				Latest 6 Months		
Dial Tone Speed						
Receiver Overflow						
Restore Verify Failures						
Transmitter Time-Outs						
Office Overflow						
FCG & Supv. Failures						
Receiver Time-Outs						
Equipment Irregularities						
Non-Salvageable Entries						
Code 5 & 8 Equipment						
Code 5 Frame						
Total Index						
Performance Indicators (Soft Spot)	___of___	___of___	___of___	___of___	___of___	___of___

Other Data:

Termination Capacity: (lines) _____ Working Lines: _____

(Terminals) _____ Working Numbers: _____

(Numbers) _____ Engineered: _____ Present: _____

Description of other activity (equipment or building) presently in progress: _____

_____

_____

_____

FRAME FORCE MANAGEMENT PLAN

REVIEW

Division _____ District _____

Office _____ City/Town _____

Stations _____ Last Review Date _____

Review of Findings with: (Name, Title, Date)

_____

_____

1. Latest E-6624 Totals
   - % Zero Due Date Orders _____
   - % After 5PM Orders _____
   - % Efficiency (actual) _____
   - % Efficiency (objective) _____
   - % Non Order Hours _____

1.01 Frame Information
   - No. of Frameman _____
   - No. of MDF Verticals _____
   - Type Frame _____
   - Dedicated Supervisor - Yes _____ No _____

2. Frame Administration

2.01 FFMP Records Category 4
( ) a. E-6622 Daily C.O. Activity Log
( ) b. E-5491 O.J. Training Records
( ) c. E-5492 Work Evaluations Records

2.02 FFMP Records Category 3
( ) a. E-6622 Daily C.O. Activity Log
( ) b. E-5491 O.J. Training Records
( ) c. E-5492 Work Evaluations Records
( ) d. E-5497 Frame Control Records
( ) e. E-5847 Work Inventory Record

2.03 FFMP Records Category 2
( ) a. E-6622 Daily C. O. Activity Log
( ) b. E-5491 O. J. Training Records
( ) c. E-5492 Work Evaluation Records
( ) d. E-5497 Frame Control Records
( ) e. E-5848 Work Assignment List
( ) f. E-5847 Work Inventory Records
( ) g. E-6619 Daily Forecast
( ) h. E-6625 Speaker Activity Log (Optional)

2.04 FFMP Records Category 1
( ) a. E-6622 Daily C.O. Activity Log
( ) b. E-5491 O. J. Training Records
( ) c. E-5492 Work Evaluation Records
( ) d. E-5497 Frame Control Records
( ) e. E-5848 Work Assignment List
( ) f. E-5847 Work Inventory Records
( ) g. E-6619 Daily Forecast
( ) h. E-6620 Loading Sheet
( ) i. E-6621 Daily Time & Work Log
( ) j. E-6621A Supplemental Time Log
( ) k. E-6624 C.O. Monthly Control Log
( ) l. E-6625 SSO & Trunk Order "M" Log
( ) m. E-XXXX Speaker Activity Log (Optional)
( ) n. Order Bin Arrangement

3. Effectiveness of FFMP
( ) a. Satisfactory
( ) b. Unsatisfactory

Remarks: _____

_____

_____

_____

_____

_____

_____

_____

CENTRAL OFFICE QUALITY

CONTROL PLAN

EVALUATION SUMMARY REPORT INDIVIDUAL OFFICE

Office _____ District _____ Division _____

Area _____ Evaluator _____ Date of Review _____

Category	Band				Comments
	A	B	C	D	
Office Administration	_____	_____	_____	_____	_____
Corrective Maintenance	_____	_____	_____	_____	_____
Preventive Maintenance	_____	_____	_____	_____	_____
Power Equipment	_____	_____	_____	_____	_____
Frame Administration	_____	_____	_____	_____	_____
Safety-Security-Bldg.	_____	_____	_____	_____	_____
AMA Billing	_____	_____	_____	_____	_____
W.E. Co. Activity	_____	_____	_____	_____	_____
C.O. Coin Equipment	_____	_____	_____	_____	_____

BAND CATEGORIES

Band A - No Specific action needed at this time.

Band B - Certain actions are indicated and should be corrected with no futher evaluation.

Band C - Immediate follow-up is needed (established programs to correct items).

Band D - Immediate action is required.

CENTRAL OFFICE QUALITY

CONTROL PLAN

EVALUATION SUMMARY REPORT - MULTI-OFFICE

District _____ Division _____ Area _____

Evaluator _____ Report Period _____

Category	Total Offices Evaluated	Band			
		-A	B	C	D-
Office Administration	_____	_____	_____	_____	_____
Corrective Maintenance	_____	_____	_____	_____	_____
Preventive Maintenance	_____	_____	_____	_____	_____
Power Equipment	_____	_____	_____	_____	_____
Frame Administration	_____	_____	_____	_____	_____
Safety-Security-Bldg.	_____	_____	_____	_____	_____
AMA Billing	_____	_____	_____	_____	_____
W.E. Co. Activity	_____	_____	_____	_____	_____
C.O. Coin Improvement	_____	_____	_____	_____	_____

Band Categories

Band A - No specific action needed at this time.

Band B - Certain actions are indicated and should be corrected with no further evaluation.

Band C - Immediate follow-up is needed (establish programs to correct items).

Band D - Immediate action is required.