

CENTRAL OFFICE QUALITY CONTROL
WORK EVALUATION RECORD
FORM E-5492

1. GENERAL

1.01 This Section provides a method for determining the quality of work performed in a Central Office.

1.02 This Section is issued to replace Section V63.102 and to update information and exhibits contained in that Section.

1.03 The supervisor's responsibility for obtaining high quality work is directly related to their responsibility for service and cost. Errors usually harm customer service. Investigations and corrections resulting from work errors increase costs. This Section discusses the need for controlling quality in the central office. It illustrates practical applications and a typical program for use by supervisors.

A. THE NEED FOR A QUALITY CONTROL PROGRAM

1.04 The quality of service the customer receives generally depends on equipment reliability and human performance. Equipment reliability is affected by design and manufacturing controls and is usually very high. However, this same equipment is installed, connected, transferred, operated and maintained by people. This chain of work operations presents many opportunities for work errors.

1.05 Equipment reliability cannot be ignored by the supervisors. They must always be alert for maintenance conditions and service interruptions which may be caused by poor design or by manufacturing weakness as well as by other conditions such as deterioration and wear.

1.06 However, equipment failures usually are outnumbered by errors in records, improper procedures, lack of knowledge and carelessness. An example of the latter is the frequent service interruptions caused by activity on circuits not properly turned down.

1.07 The supervisor's activities aimed at reducing work errors to a minimum and then holding them at a low level must be coordinated into a quality control program. This program should supply them with overall knowledge of the central office work quality and should point out the causes of work errors by the work force.

B. INGREDIENTS OF A QUALITY CONTROL PROGRAM

1.08 The supervisor has an obligation to check an adequate sample of each employee's work so as to know the quality of the entire job. Furthermore, supervisors must take the indicated action required to correct work which is below standards. This idea implies that quality standards for various kinds of work be known by the supervisor and the employee. Mainly, these standards are defined in Bell System Practices as performance requirements. It becomes important, therefore, that the supervisor know these standards in order to evaluate work quality and take the necessary corrective action.

1.09 In the central office there are frequent opportunities to check samples of work before customer service can be affected by poor performance. For example, service orders, circuit orders, trunk orders and traffic transfers are usually received before the due date. This lead time allows for running the necessary connections, as well as time for the supervisor to make quality checks before the customer receives the service.

1.10 In other cases such as trouble clearing and equipment testing, it generally is not practical to hold equipment out of service in order for the supervisor to make quality checks. Quality checks of this kind of work therefore must be made after the fact.

1.11 The very existence of a quality control program can be effective because the employees know that quality is a requirement of the job. When they know that their work will be checked or observed, they will tend to perform a higher quality work operation.

1.12 It is very important that all kinds of work performed by all members of the force be checked for quality. The amount of work items checked for each employee for the total force may vary according to need. Mainly, the need is determined by the quality of the overall job being done as noted in past evaluations. For instance, in an office where samples of all kinds of work consistently meet high standards, the number of quality evaluations may be justifiably lower than in another office where a large portion of the work fails to meet requirements.

1.13 The sample sizes of the different kinds of work should also be geared to the relative volume of the total work performed in the office. In periods of heavy service or circuit order work or facility rearrangement, samples of this type of work should be increased accordingly and continued until the work load drops to normal, assuming that quality is satisfactory.

1.14 Where practicable, supervisors should make quality inspections of work promptly after work is completed.

1.15 Results of work evaluations should be recorded on Form E-5492, Work Evaluation Record (Exhibit 1). This form is punched for filing in standard ring binders. It is printed on both sides.

1.16 There should be a Form E-5492 for each employee. When forms are completely filled, they should be retained for at least a year in the supervisor's private files. The supervisor should discuss results of evaluations only with those directly concerned such as the employee or the supervisor's superiors. When an employee is transferred from one group to another, except on loan or temporary transfer, the records of work evaluation should be sent as personal mail to the new supervisor.

2. WORK EVALUATIONS

2.01 The main purpose of evaluating work is to improve work performance. While some employees consistently perform at high levels, others do not. All employees need training for further development on the job or preparation for other assignments. The work of employees who are fully trained should be evaluated for continuing evidence that they are still meeting high standards.

2.02 Improved performance is usually recognized by higher quality, increased productivity, greater job knowledge, use of proper methods, job planning and safety. In most cases of substandard performance, the reason is found to be a need for training. This need for training may stem from an absence of technical knowledge, poor work habits, carelessness or a lack of knowledge of the supervisor's objectives.

2.03 Emphasis on training does not mean that supervisors are to lead employees by the hand thereby making them too dependent. Yet supervisors must not assume that all their employees know how to do all of the work operations correctly or that they know exactly what is expected of them. Work evaluations are a means which supervisors can use to find out who needs training.

2.04 Initially, most supervisors may find evaluating employees' work difficult due to not knowing what inspections to make and where the threshold should be for an inspection to be satisfactory or deficient. Also, there is a tendency for the supervisor to approach one of two extremes. At one extreme are the supervisors who see only those things people do wrong or, at least, that is all that is recorded. At the other extreme are the supervisors who make quality inspections only on what they have observed people doing right, but quality in their area of responsibility leaves much to be desired. Both extremes fail to accomplish the purpose of the evaluation. A good work evaluation should define areas where improvement is needed and recognize areas of good work.

2.05 The supervisor should schedule work evaluations so they become a part of the workday along with other duties. This schedule should reflect a sample of work in progress and work recently completed. It is recommended that a certain period be set aside each week for preparing the evaluation schedule for the following week.

2.06 In addition to the scheduled evaluations, the supervisor must be aware of situations requiring an immediate evaluation. When an employee's work error interrupts service, there is an immediate requirement for an evaluation to determine the reason for the error. Corrective action should be taken to prevent recurrence. It is suggested that this type of evaluation be specially noted on the Work Evaluation Record, Form E-5492.

3. WORK EVALUATION PROCESS

3.01 The work evaluation process consists of scheduling work evaluations, making each evaluation, taking appropriate action, recording results and following up. There are two kinds of work evaluations. Each has its own particular and most useful application. The supervisor should be careful to select the one which is best for accomplishing the intended results and should avoid reliance on one kind because of habit.

3.02 Work Inspections are used for evaluating a finished job. Jobs such as equipment adjustments and lineups, cross-connections run and soldered, record entries and switches lubricated are examples of work which can be evaluated accurately when the job is concluded. However, the examination of completed cross-connection work which is found faultless does not tell whether the employee worked efficiently and

safely and followed proper service protection procedures. In addition, supervisors must guard against trying to accomplish too much during one work inspection. If too many aspects of a large job are evaluated, the result, if several faults are discussed with the employee, may be overwhelming.

3.03 To evaluate completed work it is important that the supervisor apply exactly the same mechanical and electrical requirements as the employee was supposed to apply. Quick or partial checks will not suffice. Unless the required standards are applied, the supervisor will not know if jobs are done correctly and completely.

3.04 Work Observations are used to check that correct procedures, proper tools and prescribed methods are being used by an employee while working. In addition, such things as safety, service protection, trouble analysis, evidence of technical know-how, job planning and dexterity can also be observed while the work is being observed. Supervisors should keep in mind that while they are making observations, employees are aware that this is being done and may temporarily change their normal work habits.

3.05 Action taken by the supervisor following evaluations often requires interviews with employees. Interviews are also used for other purposes such as the explanation of a new procedure or for evaluating an employee's knowledge of a procedure. Interviews should be planned carefully so as to accomplish the intended purpose. Planned interviews can be used to assess an employee's knowledge by using the question-listen technique described below.

THE QUESTION-LISTEN TECHNIQUE

3.06 When a supervisor learns that an employee has made a work error, a determination must be made in order to decide what remedial action to take. There are at least four reasons for work errors: lack of knowledge, lack of care, forgetfulness and error by someone else (such as an assignment error on an order).

3.07 There could be a tendency for the supervisor to conclude that the employee should know better than to make the error. If a supervisor knows that the employee has been given training in the work operation which was done incorrectly, an assumption that lack of knowledge is not the cause. However, experience frequently shows that there is no record that the employee was trained. The supervisor assumes that the employee knows. It may also be possible that the training given was not effective. A supervisor may think that a discussion conveyed exactly what the problem was but the employee may not have understood and may have been reluctant to ask a question which would have disclosed lack of comprehension. In another case, the employee may have understood something different from that intended.

3.08 If it is assumed that a work error was due to carelessness or disregard of instruction, the supervisor commits a course of action which may trigger a defensive mechanism within the employee. If the supervisor confronts the employee with an accusation or question about the work error, the employee may feel unfairly criticized and become defensive in thought or by a verbal outburst. In either case, corrective action, which should be the supervisor's objective, is all but impossible. A receptive attitude, essential to learning, has been replaced by one of defense.

3.09 How, then, should a supervisor proceed?

The exact course depends on the conditions for each case. In general, a discussion with the employee guided by a few key questions planned in advance should be used to bring out answers to the following questions:

- Does the employee know what should be done and when it should be done?
- Does the employee know how to do it?

3.10 The discussion should lead directly to answers to these questions. In this way the supervisor builds a case, so to speak, where answers fall together like pieces in a jigsaw puzzle until the whole picture or the conclusion is obvious to both supervisor and employee. This is the essence of the question-listen technique. Questions should be of the open type - those that cannot be answered with "Yes" or "No". Open questions generally are the "Tell me how," "Describe the preferred method," or "When would you do" type. The supervisor should avoid the "Do you know how" or "Did you do" type of questions which usually results in a yes or no answer.

3.11 Work operations may be difficult for an employee to describe. A demonstration should be requested if practical. This has an added advantage in that if the employee has a bad work habit, it will probably be revealed in a demonstration.

3.12 The following example illustrates the question-listen technique:

The supervisor has evaluated the employee's work using the work inspection method. Employee was assigned to check the 71F milliwatt generator after installation of

distribution networks, test lines and test outlets. Employee's instructions read, "Check the 71F milliwatt job using Section 103-327-100 and schematic drawing notes".

Supervisor's inspection of the job revealed that several of the network level compensating straps did not provide for a balanced supply. He also noted two straps were unsoldered.

In the employee's training record there is nothing to indicate training on this item. However, the supervisor feels that the employee should have been able to do the job correctly using the BSP instructions and drawing. Nevertheless, the supervisor reflects for a few minutes on the question-listen approach and goes to where the employee is working. The supervisor asks the employee to stop long enough to answer a few questions.

Supervisor - Employee, what did you find on the 71F milliwatt job you checked yesterday?

Employee - Everything looked good.

Supervisor - What did you do to check the job?

Employee - I checked the levels and impedance for all the outlets and test lines and everything was OK.

Supervisor - Let's get the BSP Section and drawing and have another look at the distributing networks.

(Employee notices the unsoldered terminals.)

Supervisor - Do you see anything else wrong?

Employee - No.

Supervisor - The BSP Section and notes on the schematic drawing indicate that the level compensating straps should be the same for the tip and ring sides to provide a balanced supply.

Employee - I didn't notice that. I figures if the level and impedance were correct, the job was OK.

Supervisor - Do you still think the job is satisfactory?

Employee - I guess not.

Supervisor - OK, correct the network strapping and make the corrections in the milliwatt record book.

3.13 Supervisor should make a written record of the job evaluation, the interview and training, and follow-up work inspections on the Employee Work Evaluation Record.

3.14 If the employee makes the same work error again, the questioning at that time may proceed more rapidly. However, many conditions determine the exact path to be taken. Careful questioning is needed to bring out the facts. This may be just another in a long string of repeated work errors. This may be the time for warning

or, if this has been done, sterner action may be appropriate. In all situations, the facts should be clear and documented.

3.15 If the interview indicates a lack of knowledge, it is important that the supervisor teach the operation carefully and completely, even if the employee actually knows how to do it. This is a much better course than to make the mistake of falsely blaming the employee for something not known. Good records over a period of time will always accomplish the supervisor's purpose.

4. NEED FOR WORK EVALUATIONS

4.01 The need for a work evaluation will be apparent by one or more indicators. Generally, these indicators are: (1) weakspots, (2) follow-up, (3) strong spots, and (4) overall office evaluation.

A. WEAKSPOTS

4.02 New employees can mean those just hired or those transferred from other jobs or central offices. In any case, the supervisor needs to know the extent of the new employee's training and experience, and level of competence of the job.

4.03 Employees returning from Plant School should be assigned work requiring the use of their newly gained knowledge. This should be followed by evaluation covering methods, test gear and circuit knowledge, for determining the effectiveness of the training. Knowledge gaps and misunderstandings may be detected and corrected soon on the job. An important aspect of the supervisor's work evaluations made immediately following employee training is that they emphasize the importance he attaches to the employee's training, as well as the employee's responsibility for learning well.

4.04 New or changed procedures, policies, practices, etc, usually affect all employees. The supervisor should make evaluations for determining that the changes have been correctly received and are being applied. Also, that work evaluations made covering these items stress the importance the supervisor attaches to them.

4.05 The need for cross-training is likely to change with central office additions, added services or features, increases in work coverage, and changes in personnel. Mainly, these tend to be training requirements applying to most, or even all, of the work forces.

4.06 Evaluations are made to learn the cause of problems, such as poor quality which affects service or lack of knowledge which results in slower work operations and excessive cost.

B. FOLLOW-UP

4.07 When evaluations are made and departures from standards are found or observed, there is a need for correction and training. Each case should be followed by an evaluation to check that the job performed now meets standards.

C. STRONG SPOTS

4.08 Those employees who may be fully trained and who consistently perform at a high level of efficiency, produce top quality jobs, and follow approved procedures and practices require less of the supervisor's attention than others who have not developed as far. However, highly qualified people also need to have their work evaluated, so that the supervisor can collect information for supporting statements of their proficiency and readiness for advancement.

D. OVERALL OFFICE EVALUATIONS

4.09 The results of an office evaluation (such as that made by Headquarters Staff representative) may provide additional items to be added to the supervisor's evaluations schedule. Deficient items noted on past office evaluations should be reviewed by the supervisor to ensure that they do not get out of control again. The supervisor should be continually evaluating areas of responsibility, holding employees responsible for work items for which they are accountable.

5. ATTITUDES AND OBJECTIVES

5.01 The supervisor and employees must have a "quality attitude" to achieve the desired results of quality control. Development of these attitudes may initially place great demand on supervisory time. However, it will be worth all the effort required to establish this type of office environment.

5.02 The supervisor's objective in making quality inspections should be to correct areas where work is deficient and to give credit for quality work. The employee should want their work to be evaluated so they can receive credit for good quality and improve where needed. The employee should realize that constructive criticism offered by the supervisor is part of the learning process. When an employee's work does not meet the quality requirements, the supervisor should work with them in whatever way is necessary to overcome the problem. Almost without exception, if employees know that quality work is expected and will be recognized, this is the type of work they will produce.

5.03 Where applicable, the supervisor should use BSP requirements as a basis for judgement in making quality inspections. If the inspection covers items not covered by a BSP requirement, the supervisor should make it clear to the employee what standards are acceptable.

5.04 There are times when a scheduled work evaluation may be used to improve the supervisor-employee relationship toward evaluations. Assuming there is no specific item the supervisor wishes to evaluate, a random selection of several items may be made. The supervisor can then be very objective, and with this approach the employee usually feels that the evaluations are fair to all employees. This procedure can reveal a factual percentage of unsatisfactory evaluations without involving personalities.

5.05 It is mainly through the work evaluation process that the need for training, counsel, or criticism must follow. To be effective, the on-the-job training must be related to the specific needs of the individual as determined from the record of work evaluations made.

5.06 The need for doing work evaluations changes. It is not practicable to specify quotas which would apply to each employee. Also, the number of work evaluations required for an employee varies. As evaluations disclose improvement resulting from corrective action, the number of evaluations may be reduced. In all cases, the supervisor and the boss should agree on quantities of work evaluations.

6. REPORTING

6.01 Reports of "work evaluations" shall be submitted to the Equipment Chief or equivalent as designated by the Division Manager. Form SW-6498 "Central Office Foreman's Report" (Exhibit 2) is to be used for this purpose.

6.02 Include on the report the following information:

- (a) Total number of work evaluations.
- (b) Work evaluations with defects.
- (c) Total employees.
- (d) Number of employees whose work was evaluated.

EXHIBIT 2

FORM SW6498



**CENTRAL OFFICE
FOREMAN'S REPORT**

Form SW-6498
(Rev. 8-76)

FOREMAN _____ OFFICE _____ PERIOD _____

SERVICE	EST.	ACT.	COST	HOURS
"T" Tickets			"T" Ticket Hours	
"Memo" Tickets			"Memo" Ticket Hours	
Frame Codes			Selective Maintenance (Program) Hours	
Work Errors – Tele. Co.			Total Upkeep (R) C.O. Hours	
Intercept Errors			Preventive Maintenance Hours	
Work Evaluations			Corrective Maintenance Hours	
Number With Defects			Total "M" Hours	
Total Employees			Est. "M" (Unmeasured) Hours	
Employees Evaluated			KCO "M" (Unmeasured) Hours	
W.E. Co. Caused Troubles	X		Total "M" (Measured) Hours	
			Total Other Maintenance Hours	
			Testing Accounts	
			Cable Maintenance Accounts	
			All Other Accounts	
			Total "C" & "X" Account Hours	
			Total Training (-99) Hours	
			Total Undistributed Hours	
			Total Hours Expended	
			Overtime Hours	
			% Overtime	
			Frame "M" Hours (By Switchmen)	
			Preventive Maintenance Hours Deferred	X
			Hours Scheduled (Current Month)	
			Hours Deferred (Current Month)	
			Hours Deferred (Current Year)	
			Hours Required to be Current	
			Total Hours Scheduled (Current Year)	

EXPLANATION OF DEFERRED HOURS:

REMARKS: