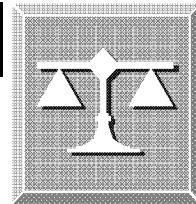


**TS-22 August 1975**

**General Schedule  
Position Classification Standards**



**WCPS-2 August 2002**

**POSITION CLASSIFICATION  
STANDARD  
FOR  
GENERAL FACILITIES AND  
EQUIPMENT SERIES,  
GS-1601**



**Workforce Compensation  
and Performance Service**



# General Facilities and Equipment Series

## GS-1601

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## SERIES DEFINITION

This series covers positions involving (1) a combination of work characteristic of two or more series in the Equipment, Facilities, and Services Group when no other series is appropriate for the paramount knowledges and abilities required for the position, or (2) other equipment, facilities, or services work properly classified in this group for which no other series has been established.

## COVERAGE OF GRADE LEVEL CRITERIA FOR CLASSIFICATION OF PRODUCTION AND MAINTENANCE MANAGER POSITIONS

This standard provides grade level criteria for production and maintenance shop manager positions. It was based on factfinding in the Department of the Navy and criteria were developed against Navy organization and operational patterns. It is, however, a Government-wide standard to aid (in combination with other standards) in the classification of similar positions in other agencies. This guidance should not be applied directly to other positions without full consideration of possible differences in environment. This is especially true of Factor II, Scope of Operations. The ranges shown under that factor are tailored to the Navy's specific management and program environment, and should be considered as only the most general guidance when applied to other situations. Other guidance may be found in standards for the [Civil Engineering Series, GS-0810](#); the [Engineering Technician Series, GS-0802](#); the [Supervisory Grade Evaluation Guide](#); [Cemetery Administration Series, GS-1630](#); [Facility Management Series, GS-1640](#); [Printing Management Series, GS-1654](#); and the [Laundry and Dry Cleaning Plant Management Series, GS-1658](#).

Often the most difficult decision concerning the use of this standard will be whether the position is covered by the General Schedule or the Federal Wage System. Many positions require, to some degree, both trade and managerial knowledges, skills, and abilities. In making such a decision, consider the material found in Section IV of the [Introduction to the Position Classification Standards](#).

## POSITIONS NOT COVERED BY THIS GUIDE

1. Positions involving supervising or directing production and maintenance work performed by a variety of trades and labor employees, and that have as their paramount requirement an intensive knowledge of one or more of the trades supervised. Such positions are evaluated under the provisions and standards of the [Federal Wage System](#).
2. Positions that have as the primary requirement professional engineering qualifications should be classified in the appropriate professional engineering series.
3. Positions that involve the management of public buildings or similar facilities that have as their primary requirement business management and administrative qualifications should be classified in the [Building Management Series, GS-1176](#).

4. Technical positions that require primarily application of a practical knowledge of (a) the methods and techniques of engineering or architecture and (b) the construction, application, properties, operation, and limitations of engineering systems, processes, structures, machinery, devices, and materials should be classified in the [Engineering Technician Series, GS-0802](#).
5. Positions which involve managing the operation and maintenance of buildings, grounds, and other facilities such as posts, camps, depots, power plants, parks, forests, and roadways should be classified in the [Facility Management Series, GS-1640](#).

## MANAGERIAL RESPONSIBILITIES

All of the positions covered by this standard consist of a complex network of duties and responsibilities. The standard discusses only those which distinguish one position from another by grade level. It does not discuss those elements which are present in virtually all of the covered positions (e.g., personnel management responsibilities including counseling employees, enforcing discipline, and evaluating the performance of individual subordinates). It assumes elements that are in every managerial job but are almost impossible to measure (e.g., servicing unusually aggressive or uncooperative customers). The standard also assumes that all positions have the full range of managerial responsibilities.

Managerial positions are those in which incumbents (1) direct the work of production or maintenance organizations (2) are held accountable for the success of specific line or staff programs, projects, functions, or activities, (3) monitor the progress of the organization toward goals and periodically evaluate and make appropriate adjustments, and (4) typically perform the following duties:

- a. Determine goals and develop plans for a production or maintenance organization independently of or jointly with higher management;
- b. Contribute significantly to the determination of resource needs and allocation of resources, and are held accountable for their effective use;
- c. Make or recommend organizational changes which have considerable impact, such as those involving basic structure, operating cost, and key positions;
- d. Consider a broad spectrum of factors when making decisions (or recommendations to higher-level management) including such matters as public relations, labor-management relations, and the effect on other organizations;
- e. Coordinate program efforts with other internal activities or with the activities of other agencies;
- f. Assess the impact of the organization's programs on other parts of the agency including those in other production or maintenance organizations in other Government entities, and in the private sector;

- g. Set policy for the organization in such areas as determining program emphases and operating guidelines; understand and communicate agency policies and priorities throughout the organization managed;
- h. Deal with general personnel management policy matters affecting the entire organization, with personnel actions affecting key employees, or other manpower actions having significant impacts;
- I. Delegate authority to subordinate supervisors and hold them responsible for the performance of their units.

## **TITLING**

No specific titles or fixed specializations are required by the standard. However, all titles should be constructed to show the type of organization managed by the incumbent, and all should end with the term "Manager" or "Superintendent" for example, Public Works Manager or Public Works Superintendent.

## **BACKGROUND INFORMATION**

Navy production and maintenance managers exercise a full range of managerial responsibilities over the work of organizations in a wide variety of Navy activities such as air rework facilities, shipyards, research centers, supply centers, ordnance stations, and missile ranges. The organizations are obviously very different from each other, but the positions of the managers tend to have many characteristics in common. For example:

--They typically manage a large work force, e.g., between 100 and 1500 employees, in a variety of trades, crafts, and laboring occupations.

--They all have considerable responsibilities in such areas as labor relations, position management, budget, personnel management, equal opportunity programs, planning, scheduling, and work coordination.

--They typically direct the work of their organization through two or more subordinate levels of supervision.

## APPLICATION OF THE STANDARD

This standard should be applied in three basic steps:

1. The position should be studied very carefully to ensure that it is an appropriate one for coverage by this standard.
2. A tentative grade should be determined based on the four factors described in the standard.
3. All elements of the work not adequately considered under the factors should be considered as part of a comprehensive evaluation of the position.

### *Factor 1 -- Planning and Coordinating Responsibilities*

A manager's job becomes more difficult as the need for planning and coordination increases, and the level of planning and coordination required depends upon the type of organization managed. When many different types of workers or organizations must interact to complete a final product, the manager is responsible for planning and coordinating that interaction. When an individual worker can produce a product alone, or when the sequence of operations is relatively simple, the management problems are reduced. For example, it is easier to plan and coordinate an assembly line operation with a relatively steady workload than it is to plan and coordinate an organization with varied operations, each with separately and frequently changing workloads and resources requirements. The proportion of the organization's operations requiring reshuffling and the complexity of that reshuffling should also be considered. Few organizations go for long without at least some minor changes.

Most positions will include work described at more than one level of this factor. Select the level that best characterizes the position. Do not credit point levels between those shown at the various levels of this or any other of the factors in setting the tentative grade. Strengths not fully reflected in the tentative grade should be considered as part of the comprehensive evaluation.

### *Level C (20 points)*

Typically, work assigned to the organization requires relatively little coordination among work groups, whether within or outside of the organization. The workload and manpower requirements are steady and therefore relatively predictable. Training is normally required only to bring employees to the full performance level of their trade.

Operations normally falling under Level C include:

- Vehicle maintenance and repair when this includes a few types of equipment (e.g., passenger cars and pickup trucks);
- Moving furniture;
- Dispatching;



- Utility operations requiring primarily routine operations and scheduled maintenance;
- Building maintenance and repair when this includes primarily scheduled maintenance.

### *Level B (40 points)*

Typically, projects assigned to the organization include several operations and require careful planning and coordination. At the working level, many of these projects require substantial interaction between work groups in various trades or organizational units, with no trade or organization able to complete the project alone. The workload and manpower requirements often change significantly from year to year. The organization may have many individual projects going on at once, and new projects may be approved throughout the year, but significant, unexpected changes in the type and quantity of manpower required during the year are unusual. The manager must constantly train and retrain employees, but there is typically infrequent need for the sudden development of one-of-a-kind courses to accommodate new procedures, new equipment, or changes in the makeup of the work-load.

Much of the organization's work is subject to frequently changing work situations in which several of the following conditions are met:

- The approximate date of these changes cannot be accurately predicted;
- The changing work situations require frequent and substantial rescheduling or reassignment of work, or both;
- The manager makes, or participates in making many decisions concerning the shifting of resources to meet sudden changes;
- The changes require almost constant attention to work progress, and to adjustments in plans and schedules;
- The work situations are such that they demand of the manager qualities such as exceptional adaptability, special skills in planning, ability to act quickly, and ability to withstand considerable and continuing pressure.

Operations normally falling under Level B include:

- Vehicle repair when this includes a large amount and variety of equipment;
- Operation and maintenance of utilities when those functions require the meeting of rapidly changing and relatively unpredictable demands for service and frequent need for unscheduled maintenance due to worn or constantly overtaxed facilities;
- Building maintenance and repair when this includes frequent modification of space to meet needs for changing space requirements, or frequent unscheduled maintenance due to facilities which are worn or overtaxed;

--Assembly line operations which require unusual safety or quality controls, or which require frequent modification to accommodate product changes or the scheduling of several different products;

--Complex assignments associated with major modification or repair of aircraft, ships, and submarines when the work is normally performed at the beginning or end of the modification or repair with little other involvement throughout the process;

--Complex assignments associated with major modification or repair of aircraft when these can be carried out through manufacture without significant involvement throughout the actual modification or repair process.

### *Level A (60 points)*

The organization's work requires constant and highly complex coordination between work groups either within or outside the organization. Work assigned to the organization includes a substantial number of complex, one-of-a-kind or few-of-a-kind projects, each of which includes several operations and, therefore requires considerable planning and coordination. At the working level, these projects require substantial interaction among work groups in various trades or organizational units, with no one trade or organizational unit able to complete the project alone. Planning and coordination are complicated by the need to bring many resources together in a specific sequence and at a specific time. The workload is subject to frequent, substantial, and unexpected changes within a few months. For example, major equipment changes or modifications for several ships may be added unexpectedly to previously planned work.

The mission of the organization requires frequent reframing of workers because of new techniques to be applied; new equipment to be installed, repaired, or modified; significant changes in the makeup of the organization's workload; or requirements for frequent recertification of workers for various operations.

Over half of the organization's work is subject to frequently changing work situations in which all of the following conditions are met:

--The approximate date of these changes cannot be accurately predicted;

--The changes substantially affect resources needed, and those resources are difficult to estimate;

--The changing work situations require frequent and substantial reprogramming, rescheduling, or reassignment of work, or all of these actions;

--The manager makes, or participates in making many decisions concerning the shifting of resources to meet sudden changes;



-- The changes require almost constant attention to work progress, and to adjustments in plans and schedules; and

--The work situations are such that they demand of the manager qualities such as exceptional adaptability, special skills in planning, ability to act quickly, and ability to withstand considerable and continuing pressure.

Examples of operations normally falling under Level A are:

-- Major modification and repair of ships, submarines, and aircraft requiring significant involvement on the part of the manager throughout the modification and repair process.

-- Fabrication of complex, one-of-a-kind devices such as those developed for research and development purposes when this requires significant consultation between workers and those responsible for designing or using the devices.

### *Factor 2 -- Product Complexity*

This factor reflects the general level of technical complexity inherent in the work of the manager. The complexity of the service or end product provided, the nature and diversity of production problems to be faced, and the technological state-of-the-art should all be considered in selecting the level of this factor which is most applicable to the position. Many positions will contain some features of several levels. Select the level that best characterizes the position.

#### *Level C (20 points)*

The organization produces a limited number of standard services or end products. Most projects are small (e.g., can be completed within one or two weeks) or consist of routine on-going housekeeping exercises. The methods of producing the end products are standardized and readily understood. Specifications are usually clear, and are often simple enough to be passed on as spoken rather than written instructions. Problems rarely involve the technical acceptability of the work. Production problems are standard, and direct precedent is usually available for their solution. There is little need for developing new methods and procedures for work accomplishment.

#### *Level B (40 points)*

The organization produces services or end products, which are complicated by the size and complexity of the facilities required to provide the service or product, or the size and complexity of the product, or the variety and critical sequence of operations required. to produce the product or service. The methods of producing the end products are relatively standard, but the specifications are often complicated by the size of the project. Problems do not normally involve the technical acceptability of the work, but the timely and thorough completion of the work is often critical for safety reasons. Production problems are standard, and direct precedent is usually available for their solution. There is limited need for developing new methods and procedures for work accomplishment.

*Level A (60 points)*

The organization produces services or end products which are highly complex and which must meet extremely high standards of quality. New production problems are continually arising for which there is no precedent, and therefore great effort is expended in devising new production procedures. Inspections of the final product are very rigorous, often requiring sophisticated testing methods and equipment.

*Factor 3 -- Complexity and Rigidity of Requirements*

This factor identifies organizations at three levels of complexity based on the types of problems they present to the manager. It recognizes that when tight deadlines, restricted approaches to completing work, and specified paperwork controls are imposed on a manager, they tend to make his work more difficult, not less difficult.

Generally these restrictions are really another form of specification to be met in producing a final product. The manager is left with a new set of problems such as how to schedule extra man-hours required, how to train employees in the required procedures in time to meet the deadline, how to ensure that required inspections are made, how and when to consult with unions concerning changes in working conditions, and so on through a maze of management problems. The increased restrictions generally leave the manager with his responsibilities and problems while limiting the number of his solutions.

*Level C (20 points)*

The organization's customers establish requirements concerning the final product, but the manager is relatively free to determine the deadlines, approaches to completing the work, and management controls to be used. Scheduling is usually accomplished without significant reference to other production organizations, and priorities are based primarily on the capabilities of the immediate organization.

*Level B (40 points)*

The organization's customers establish requirements concerning the final product and the deadlines to be met, but the manager is relatively free to determine the approaches and management controls to be used in completing the work. Scheduling is accomplished by agreements between the customer and the producer. Determination of priorities requires coordination with outside production organizations.

*Level A (60 points)*

The organization's customers have the authority to establish very rigid requirements concerning how and when the work will be done. Although the manager plays an important role in estimating the time and resources required to complete work, and has considerable freedom to reshuffle resources to perform that work, he is normally unable to change completion dates on

his own authority. Priorities are largely determined by circumstances beyond the manager's control. Scheduling is extremely difficult because of stringent tuning limitations and the need to coordinate the organization's work with other organizations committed- to the same production requirement.

#### *Factor 4 -- Scope of Operations*

This factor measures the extent to which the size of the organization managed contributes additional grade weight to the manager's position. The factor recognizes that (other things being equal) the larger the organization, the more difficult and responsible the managerial position. (In the case of this standard, the "other things" are held equal by the coverage of the standard which limits coverage to positions having considerable management responsibilities, and by Factors 1, 2, and 3.) The size of the organization is therefore one factor, of several, in the evaluation of managerial positions. When applied with proper judgment, it is a good indicator of the scope of operation and the management problems resulting from the scope of operations. The relationship between the scope of operations and the grade of a position is not mechanical or rigid. The addition of one or a few more employees should not be used to move a position from one grade to another. The standard therefore considers the numbers of employees in the work force in three broad ranges separated by large gaps between the ranges to leave areas for judgment during the application of the comprehensive evaluation. The ranges are:

- 100-500 -- Level C -- (20 points)
- 800-1200 -- Level B -- (60 points)
- 1500-above -- Level A -- (100 points)

To select a level for setting the tentative grade, identify the range closest to the size of the work force directed by the manager (e.g., if the work force includes 590 employees, place the position in the lowest range, if 710, place in the middle range).

Some organizations have marked increases and decreases in workload and size over relatively short periods of time. To select a level under this factor, consider the midpoint of the size of the organization's work force during the past year. Never base the level selected on a temporary increase in an organization's work forced Remember that frequent and substantial fluctuations in the work force may themselves be a strengthening element in setting the grade.

*Tentative Grade*

The following table should be used in arriving at the tentative grade of the position. The total points result from the application of Factor 1, 2, 3, and 4.

Total Points	Grade
80-100	11
120-160	12
160-200	13
220-260	14
280	15

**COMPREHENSIVE EVALUATION**

After the tentative grade has been established, the position should be further evaluated to determine whether the final grade should be adjusted either upward or downward from the tentative grade. Such adjustments should not exceed one grade upward or downward and should normally be considered only when at least one of the following situations applies:

- The position falls between the ranges of Factor 4 -- scope or operations;
- The position is on the borderline between levels for all or the first three factors; or
- When point number 2 below applies.

When you have determined that the comprehensive evaluation should apply, it should consider the whole position including all factors affecting the work even though they are not specifically discussed in this standard. To be adequate, the evaluation should consider at least the following points:

1. Many managers receive support from staff level planning, scheduling, or engineering units reporting to higher echelons. This should not be considered a weakening factor if the manager takes an active part in the development and modification of the plans and schedules provided by those staff groups.
2. Normally a position covered by this standard should be evaluated at least one grade above the highest General Schedule grade applied to two or more subordinate positions. Deputy positions and positions supervised only for administrative purposes may not be used to support the grade of another position under this provision.
3. The relationship of the grade of the position to the grades of other properly classified positions with comparable, higher, or lower management responsibilities in the same organization.

4. Strengthening elements such as unusual planning or coordination responsibilities not adequately considered under Factor 1. Many things such as the number of trades supervised and the dispersion of the work force can be used as clues to the level of planning and coordinating responsibilities of the manager, although none can be converted automatically into any particular level of this factor. For example:

--Other things being equal, a manager directing the work of fifteen distinct trade operations represented by four separate labor organizations will have more complex planning and coordination responsibilities than a manager with a similar number of employees in only one trade represented by a single union. But, a manager supervising only one trade can have high level planning and coordinating responsibilities if the workers under his direction work on projects requiring coordination with workers from other organizations and other trades.

--Physical dispersion of the work force can add to a manager's planning and coordination problems, but again, no degree of dispersion can be placed automatically at any particular level of Factor 1. Twenty workers stationed 100 miles down the road who work on a single project and require very little guidance or review while at the work site do not add as much to the manager's problems as twenty workers in teams of two who report to ten different work sites and require frequent guidance and review. In trying to evaluate the impact of dispersion of the work force on the manager's planning and coordinating responsibilities, consider:

--The number of employees working at scattered work locations;

--The independence of their operations (i.e., do they work on their own most of the time, or does the manager have to spend significant amounts of time guiding and checking the work?);

--The number of different locations involved;

--Regardless of the number of locations involved, do all of the workers report to the same place each morning?

--The difficulty of communicating with the different work sites (keep in mind that this difficulty in communicating matters very little if almost no communication is required, or is required only at regular intervals).

5. Weakening elements such as extensive review and highly centralized controls over the position.
6. Positions which supervise fewer than 100 employees and have fewer than two subordinate levels of supervision should be reviewed with extreme care to ensure that they are essentially managerial positions. Positions which have a small volume of operations or which are very close to the working level in echelon tend to be more concerned with day-to-day operations than they are with strictly managerial problems, whatever may have been the original intention when the position was first established.

7. Positions which require a comprehensive knowledge of a specific trade should be reviewed to ensure that managerial and not technical knowledges are their paramount requirement.
8. One strengthening situation warranting careful consideration is that of managers in shipyards having nuclear capability. This is not to say that the actual technical work is necessarily more difficult. Technically, painting a bulkhead on a nuclear submarine is a little different from the same task on a conventional submarine. This is also not a credit given for hazardous work. But, because of the possible hazards involved, and because of the public's concern over these possible hazards, nuclear work is subject to very stringent controls and safeguards which greatly complicate a manager's work. For example, employees are limited in the numbers of hours they can be exposed to nuclear work; employees performing nuclear work must have both orientation to nuclear work in general, and specific training for each type of operation to be performed; additional documentation is required for each job, and reporting requirements are multiplied; errors and safety violations require detailed investigations and counter measures not required for conventional work. The manager is given strict guidelines, but they are the type which place added demands on his managerial skills rather than reduce his need for them. The impact of nuclear work is not the same for every manager associated with it. Although typically the greater the amount of nuclear work in proportion to the total work load of the manager, the greater the impact, no precise formula can be given for crediting this work situation toward a grade. It can be said, however, that otherwise borderline positions with substantial involvement in nuclear work should be placed in the higher grade.

*It should be added that this is only one example of a strengthening situation. There may well be others, but they must be similarly strengthening.*

9. This standard assumes the active involvement of the manager in an industrial fund operation. Such operations are financed from working capital funds using business-type accrual accounting systems and cost based budgets. There is an especially heavy emphasis on cost analysis and control. The lack of an industrial fund operation should be considered a weakening factor in the classification of positions covered by the standard.
10. One aspect of the work that should not be considered in setting the grade of the position is the degree to which the work is essential. All of the positions covered by the standard are performing work which is essential to someone, and some of the most essential assignments can be relatively simple to carry out.
11. Some managers have responsibility for leading or coordinating the work of steering committees responsible for agency programs carried out by several shipyards, facilities, centers, or other organizations across the country. The manager's work with these committees may range from minor record keeping to a considerable commitment of time and expertise.

/1/ The Job Grading Standard for Supervisors (WS) is currently being revised to eliminate reference to superintendent level positions. It will be issued in the very near future.