

Department of Defense (DoD)
Civilian Personnel Management Service (CPMS)
Field Advisory Services - *FAS*
Classification Appeal Decision

DoD Decision:	Boiler Plant Operator (Electric Power Controller), WG-5402-10
Initial classification:	Electric Power Controller, WG-5407-11
Organization:	Army Fort Operations and Maintenance Division Utilities Plant Branch
Date:	August 25, 1994

POSITION INFORMATION

The appellants' duties and responsibilities are described in Job Number 91318, Electric Power Controller, WG-5407-11, Utilities Plant Branch, Operations and Maintenance Division, Fort Xxxxx. The position was classified by the activity by application of the Electric Power Controller standard published by the U. S. Office of Personnel Management in July 1993, and downgraded from WG-12 to WG-11. The incumbents assigned to this job number are appealing that action.

In brief, the appellants operate and monitor various plant equipment to generate and distribute electrical power and heat to the post. They work on a rotating shift basis, providing coverage 24 hours per day, 7 days per week, and serve as the sole operator on the second, third, weekend, and holiday shifts. They control the distribution of electrical power at Fort that is provided to the Fort by the Fort power plant and the Electric Association over Electric Association power lines. They also control the generation of power that supplements the power from these sources during peak demand periods to reduce operating costs, or that fully replaces the power from these sources in emergencies. They operate boilers and monitor the post water system and sewage lift station. The work consists of starting, regulating, and stopping the equipment and performing routine operator maintenance. The appellants regularly make rounds of the areas where the machinery and equipment are located, reading gauges and meters, making needed adjustments, taking and recording readings, and performing

other related duties such as conducting chemical tests and adding chemicals and lubricants. They receive telephone requests for facilities maintenance service, determine the nature and urgency of the request, and locate maintenance personnel to respond to emergencies. They work under the general supervision of the Utilities Plant Operations Supervisor, who reports to the Utilities Plant Supervisor. The appellants have certified the accuracy of the official job description.

There are several references in the appeal file to the classification of similar positions at other posts, other positions on base, and to previous grade level classifications of this position. All positions subject to the Classification Law contained in Title 5, United States Code, must be classified in conformance with published position classification standards of the Office of Personnel Management. Hence, other methods of evaluation, such as comparison to other Electric Power Controller positions in the Army or other Government agencies, are not authorized. This type of comparison is flawed because it assumes that the other positions used for comparison have been correctly classified. Positions in other occupational series are classified by application of different classification standards which have different grading criteria. Agencies have the primary responsibility under the law, however, for ensuring classification consistency and are required to apply the classification rationale of an appeal decision to all identical, similar, and related positions.

The classification appeal process is a de novo review which includes an official determination as to the duties and responsibilities currently assigned to the position and performed by the appellant(s). It constitutes the proper application of the classification standards to those duties and responsibilities. Thus, any previous actions taken by the agency regarding the position are not germane to our de novo review. Our decision is based on the written information provided about the job, the information given in our telephone interviews with two of the appellants and their supervisors, and our independent review and analysis of the entire appeal record.

SERIES AND TITLE DETERMINATION

The appellants indicate they do more than electric power controlling work and believe they are not being given credit for all the duties assigned to them. They noted they perform preventive maintenance and make repairs on plant equipment; start, operate, and monitor boilers; operate and test auxiliary water systems; and accept facilities maintenance trouble calls. They told us they work on manually controlled, 1953 vintage equipment that does not operate properly, causing them to be constantly busy making equipment adjustments. They indicated there should be two people on each shift because of the workload. Our evaluation addresses the grade level of these responsibilities; however, it is beyond the scope of the appellate process to determine how many employees should be assigned to any given function.

The appellants also feel the job-grading standard for Electric Power Controller work fails to adequately cover the work they perform. They believe the standard unduly

credits routing power by monitoring a centralized automated control panel, which they see as less complex than the work they are required to perform in manipulating numerous, separate manual controls to keep the power system operating. The appellants also stressed the consequences of failing to maintain heat in the facilities due to the severe winter weather conditions. Guidance in the Boiler Plant Operator standard addresses concerns of this nature which are not uncommon in public works and facilities maintenance operations. The guidance cautions not to determine grade levels by evaluation of the complexity (or simplicity) of computerized control systems or the criticality of the function or mission being serviced. Grade levels can only be determined through evaluating the work performed and the required skills and knowledge to perform that work.

The appellants also emphasized the decision-making requirements placed on them during the second and third shifts when they are the sole operators in the plant. The classification standards applicable to the appellants' position provide very specific criteria to evaluate work performed under special circumstances, such as shift operations, and our evaluation discusses this aspect of their responsibility in detail.

The appellants' supervisor also noted the multi-skilled nature of the position as an element that should merit higher grade-level credit than a job performing work in one trades occupation.

It is not uncommon, however, for jobs in the Federal Wage System to require the application of two or more trade practices, and the job-grading system provides guidance on how to classify those duties. No extra credit may be given, however, for performing a variety of duties. The system requires jobs to be graded at the level of the highest skilled duties that are a regular and recurring part of the job.

The appellants perform some duties that are properly classified in the Electric Power Controller, WG-5407, series which covers non supervisory work involved in controlling the generation or distribution of electric power. The standard covers the operation of both remote and manually controlled equipment and the service, adjustment, and minor repair of that equipment which are responsibilities of the appellants. The work the appellants perform that involves operating high-pressure boilers and auxiliary equipment is classified in the Boiler Plant Operating occupational series, WG-5402, which covers the operation and operational maintenance of single and multiple fuel water or fire tube boilers and associated auxiliary and pollution control equipment. The tasks involved in monitoring the post water system equipment and sewage lift facility are addressed in the WG-5409, Water Treatment Plant Operator and the WG-5408, Sewage Disposal Plant Operator series.

Based on the combination of work assignments in two or more occupational series, the appealed position is a "mixed" series job. Explanatory guidance provided in the Introduction to the Job Grading System for Trades and Labor Occupations states that "mixed" jobs are typically titled and graded in keeping with the duties that (1) involve

the highest skill and qualification requirements of the job, and (2) are a regular and recurring part of the job. Parenthetical titles may be added to acknowledge occupational skills that are necessary for the performance of the primary function. As described in the grade level determination below, the Boiler Plant Operating occupational series, WG-5402, represents the highest skill level requirements and the power controlling duties require occupational skills necessary to perform the job. Therefore, the proper title and series for the job are Boiler Plant Operator (Electric Power Controller), WG-5702.

GRADE LEVEL DETERMINATION

ELECTRIC POWER CONTROLLER

The WG-5407 job-grading standard describes two grade levels, grades 8 and 10, in terms of four factors: skill and knowledge required, responsibility, physical effort, and work conditions. The standard does not describe all possible grades at which jobs might be established. If jobs differ substantially from the skill and knowledge and other work requirements described for the grade levels of the jobs in the standard, they may be graded above or below the levels described based upon sound job grading methods. The standard also provides very specific criteria to evaluate work performed under special circumstances.

Skill and Knowledge:

This factor covers the nature and level of skill, knowledge, and mental application required in performing assigned duties and responsibilities.

Grade 10 electric power controllers know how to operate power distribution systems characterized by a wide variety of users, including many industrial or testing operations that often cause wide fluctuations in load demand. These operations have large load changes, reactive loads which require control of the power factor, and some peak loads which require setting up to operate control boards, generators, remote and manually controlled transformers, switches, and circuit breakers. The controllers plan and control power distribution and can operate control boards, remote and manually controlled transformers, switches, and circuit breakers. They analyze a variety of interrelated meter indications to detect abnormal conditions such as circuit overloads, improper line voltages, and equipment temperature. They also determine the causes and make necessary corrections such as adjusting controls, balancing loads by adjusting phase relationships to improve the power factor, changing transformer taps to regulate feeder voltage, switching to other equipment, or isolating the affected circuit and dispatching repair crews.

Although the specific tasks performed by the appellants are similar to those described at the grade 10 level, e.g., operating manually controlled equipment, detecting and correcting abnormalities by adjusting controls and switching equipment, the users

served by the appellants do not meet the characteristics described at grade 10. The post supports one equipment testing facility and one training center that do not cause the wide fluctuations in load demand typical of the grade 10 work situation . The post does not support a variety of industrial activities with large load changes.

The load demand at the post is fairly stable and predictable. According to the appellants, demand picks up early in the morning as people housed on base rise and employees report to offices and maintenance shops and increases again as the mess halls prepare for lunch. The late afternoon-early evening demand is balanced by offices closing down and messhalls beginning dinner operations and base residents returning home. Overall demand increases during scheduled training exercises when there are additional troops on base and in the wintertime or other times when the temperature drops. The appellants generate power to meet peak power demands during these periods to keep the commercially supplied power costs low. The appellants' position does not require application of the skills and knowledge characteristic of the grade 10 level in the standard.

Rather, the skills and knowledge required of the appellants is fully comparable to that described at the grade 8 level where electric power controllers monitor the distribution of electric power to various consumer points. Grade 8 controllers operate switchboard controls to adjust remotely controlled circuit breakers, transformers, and switches to regulate and maintain proper voltage on the distribution lines. They report abnormal operating conditions and reroute power through alternate feeders to user areas in case of emergency cutouts or extensive scheduled repair. They also notify repair crews of the location of failure and assure that circuits are open and tagged before work is started.

In addition, grade 8 controllers may operate switchboard controls to start, stop, cut in and out, and synchronize diesel-electric generators to provide emergency power or meet peak power demands similar to the appellants' tasks in generating supplemental power in emergency situations and to contain commercial costs . Similar to the appellants' record-keeping duties, grade 8 controllers keep an hourly log of meter readings and they record shutdowns, connection and disconnection of circuits, and similar occurrences. Grade 8 electric power controllers must know fundamental alternating current circuit theory, e.g., how generators and transformers function, and the inductive and capacitive reactance of power distribution lines, in order to understand the effects of changes of voltage or current on the power system. They use algebra to compute the measurement of such items as total impedances, current flow, and voltage of AC circuits with inductive and capacitive branches in order to determine whether bypass routings around outages will be able to carry the load. Controllers at this level interpret and apply oral and written operating instructions and electrical diagrams and drawings that apply directly to the electric power distribution system. For example, they interpret operating instructions and distribution equipment operating criteria to determine when to adjust the taps on a transformer in order to maintain voltage on the feeder, when the probable alternative operating conditions and appropriate actions have been specified.

Because the skill and knowledge required by the appellants' position is comparable to, but does not exceed the grade 8 level, this factor is evaluated at grade 8.

Responsibility:

This factor covers the nature and degree of responsibility involved in performing the work.

The appellants' position is comparable to the grade 8 level, where electric power controllers receive detailed oral and written instructions from their shift supervisors. Decisions made are covered by specific, well-established work methods and procedures. In the event problems arise, controllers at this level take corrective action in accordance with instructions or notify their supervisor. Written guidelines include power generation standards, and load and shedding priorities.

In contrast, Grade 10 electric power controllers receive less detailed oral or written work assignments. Specific instructions and work procedures do not cover their work situation. Rather, they use judgment in interpreting guidelines such as operating criteria of equipment, schematics and wiring diagrams and determining load priority of various industrial facilities in order to set the automatic load shedding equipment. Normally, the controllers at this level determine what problems to refer to the supervisor, e.g., refusing to pick up load request when the additional load would be within the capacity of the system but anticipated weather conditions could put the system over the maximum capacity limit. However, all special occurrences such as emergency outages and corrective actions taken to maintain service must be reported to the supervisor. Grade 10 electric power controllers are expected to anticipate unscheduled load changes and detect early evidences of equipment malfunction in order to maintain continuous service.

Load and shedding priorities at the post are established in written instructions and do not involve making determinations for the variety of industrial facilities characteristic of the grade 10 level. The appellants responsibility therefore does not meet the grade 10 criteria. This factor is evaluated at grade 8.

Physical Effort and Working Conditions:

These factors cover the physical effort exerted in performing the assigned work and the hazards, physical hardships, and working conditions to which workers are exposed in performing assigned work.

The last two factors, Physical Effort and Working Conditions, are the same at grade level 10 as grade level 8. Controllers experience prolonged sitting as well as periods of walking, standing, and stooping, and lifting items weighing up to 23 kilograms (50 pounds). They primarily work inside in well-lighted, and comfortable work spaces.

They may work outdoors for short periods and occasionally work in proximity to high voltages and currents. They are subject to electrical burns and shocks. The appellants' position is fully comparable to these criteria. They must walk about the entire plant and carry replacement parts and may crawl under the machinery to install and repair parts.

The work the appellants perform that is covered by the WG-5407 standard is graded at the grade 8 level.

BOILER PLANT OPERATOR

The Boiler Plant Operator, WG-5402 standard, uses four factors for grade level determination.

Skill and Knowledge:

A WG-08 Boiler Plant Worker utilizes a working knowledge of the structure and operating characteristics of boilers and associated auxiliary equipment to assist in the operation and operational maintenance of gas, refuse derived fuel (RDF), wood, oil, and coal fired power boilers. Although usually under the direction of a Boiler Plant Operator, a WG-08 worker maintains a knowledge of the basic operations necessary in start-up, shutdown, and restart procedures and skill in adjusting various operations such as air temperature, draft, and other furnace conditions. A WG-08 worker also has the skill to perform routine preventive maintenance and minor operational repairs such as oiling, greasing, cleaning, and replacing various boiler and auxiliary parts.

The appellants' job exceeds the grade 8 level. The appellants apply more than the basic working knowledge described at the grade 8 level. They must demonstrate skill and knowledge sufficient to operate and maintain all the equipment in the boiler plant. Their role is not that of an assistant to other operators, but of sole operator. The grade 8 skill and knowledge level is founded on the presence of a supervisor or higher graded employee to provide technical direction. The appellants' position exceeds the grade 8 level.

In contrast to the grade 8 level criteria, a WG-10 Boiler Plant Operator applies a comprehensive knowledge of all operational phases of power boiler plant operations to start, operate, adjust, stop, maintain, and perform various operational repairs on single or multiple fuel power boilers and associated auxiliary and pollution control equipment. A WG-10 operator applies a thorough knowledge of the structural and operating characteristics of power boilers that are fired by coal, oil, RDF, wood or a combination of these fuels to produce steam or high temperature hot water. This knowledge is required because, at the WG-10 level, power boilers require constant attention in order to maintain efficient combustion levels and to control the formulation of pollutants. A WG-10 operator must also apply a thorough knowledge of boiler plant auxiliary and pollution control equipment to ensure compliance with air pollution laws and regulations.

Although the level of knowledge required of the appellants is comparable to that described at the grade 10 level in several aspects, the appellants' operational situation is substantially less complex. Crediting of level 10 requires the operation of boilers and related pollution control equipment. The boiler plant does not have installed pollution control equipment such as electrostatic precipitators, flue gas desulfurization systems, or lime slurry systems characteristic of grade 10 work. The operation of oil powered boilers does not in itself meet the grade 10 level in the absence of the pollution control equipment described at the grade 10 level. The appellants' work situation does not require the constant attention characteristic of grade 10 work, to stay in compliance with emission standards, to control the formulation of pollutants resulting from varying qualities of the different fuels used. There are no air pollution monitoring or reporting requirements for the plant under the Clean Air Act or State air regulations. The plant uses a constant quality of diesel fuel, called #1 fuel, which is a relatively clean burning fuel in comparison to those discussed at the grade 10 level. The standard elaborates, in the note to users section, on the grade 10 skills demonstrated in jobs that require burning fuels that produce relatively heavy concentrations of pollutants that exceed EPA and respective State pollution standards/thresholds. Examples of such fuels are the heavier grades of fuel oil (e.g., #6 fuel oil), coal, and refuse-derived fuel. Under these conditions, the operator must operate and maintain specific additional pollution control equipment to bring the power plant into compliance with stringent pollution emission standards.

Because the grade 8 level is exceeded, but the grade 10 level is not met, this factor is evaluated at grade 9.

Responsibility:

The appellants' responsibility exceeds that described for the grade 8 level boiler plant worker who normally receives work assignments from a supervisor or a higher grade worker. These instructions outline the work to be performed and the methods and materials to be used. During the assigned shift, any problems or deviation from the instructions are reported to a higher grade worker or supervisor who is available for advice and assistance and who also checks to see that assignments are completed according to instructions and established practices.

At the WG-10 level, boiler plant operators receive work assignments from a supervisor or a higher graded operator who is in charge of the facility or the shift in the form of general written or oral instructions. They are familiar with the total plant layout and independently make decisions on plant operations such as combustion and fuel adjustments, troubleshooting, and maintenance and repair procedures. They have primary responsibility for checking boilers and auxiliary and pollution control equipment to insure the operational efficiency of equipment and safety of personnel. At this level, they also take immediate action to prevent interruptions to plant operations. The supervisor or operator-in-charge checks work through occasional observation of

operational efficiency, production reports, and adherence to established operating techniques and procedures.

This grade 10 level description matches the independence with which the appellants perform their duties within the operating conditions of the Fort plant. The appellants do continually monitor and manually adjust the equipment gauges and controls, perform troubleshooting and maintenance, and determine the repairs they will make with the time and tools available to them. However, the operating conditions of the plant fall short of the environment described in the standard at the grade 10 level. The nature of the relatively low-level pollution producing fuel burned negates the need described at the grade 10 level to constantly monitor and adjust special pollution control devices to meet EPA and State requirements. There are no special pollution control devices in the plant.

Because the appellants' position exceeds the grade 8 level, but does not fully meet the grade 10 level, this factor is credited at the grade 9 level.

Physical Effort:

WG-08 Boiler Plant Workers frequently work in confined areas in and around boilers and support equipment. The work requires moderate to strenuous effort and long periods of walking, standing, climbing, bending, and crouching. WG-08 workers frequently lift and carry boiler parts and other items weighing over 40 pounds with assistance of other workers or weight handling equipment. The Physical Effort required at the WG-10 is the same as that described above for the WG-08 level. The appellants' position compares to these criteria which do not impact on the final grade level determination on the position.

Working Conditions:

Boiler Plant Workers at the WG-08 level normally work indoors and are subject to high temperatures, constant noise, rotating machinery, soot, dirt, grease, chemicals, oil, and fumes in the work area. At this level, they are also subject to cuts and abrasions from the use and tools and equipment, and burns from acids, caustics, hot water, steam, and contact with piping and boilers. Working conditions at the WG-10 level are the same as those described at the WG-08 level. The appellants' working conditions are comparable to the criteria described in the standard which do not impact the final grade level determination on the position.

Under the grade determining factors of the WG-5402 standard, the appellants' position is evaluated at the grade 9 level.

The preventive maintenance and repair work performed by the appellants, as indicated above, is part of boiler plant operating work and adequately addressed in the standard. The appellants' position does not include responsibility for performing major overhauls

of the entire system including the repair, replacement and installation of boiler tubes, refractory linings, electronic and electrical controls, and associated components. Their emergency repairs are based on whether other equipment is operational, availability of parts, as the shops are locked at night, and the amount of time they can spare from their operational responsibilities. Because they are not responsible for the major repair and overall overhaul functions, application of the Heating and Boiler Plant Equipment Mechanic standard to their position is not required.

The work the appellants perform in monitoring the post water system, e.g., reading gauges and meters and testing pumping rates, does not meet the grade 9 level since they are not conducting the wide variety of tests and mixing and introducing the wide variety of chemicals into the system characteristic of the grade 9 water treatment plant operator. The appellants also monitor the main post sewage facility alarms, which requires sufficient knowledge to diagnose and troubleshoot the reason for the alarm, but not the knowledge of chemical testing covered at the grade 8 and 9 levels by the Sewage Disposal Plant Operator series. The appellants also receive after hours facilities maintenance calls and follow established procedures to call maintenance personnel for emergencies. The work does not require specific, higher-level trades and crafts knowledge in those occupations.

The highest level of work performed by the appellants is graded under the criteria in the WG-5407, Electric Power Controller standard at the grade 8 level and at the grade 9 level under the criteria in the WG-5402, Boiler Plant Operator standard. Therefore, the proper grade of their position that reflects the highest skill level requirements is grade 9.

Special Additional Responsibilities

Both the Electric Power Controller and the Boiler Plant Operator standards describe operating situations in which employees work under special circumstances. When positions clearly meet the criteria described below, one additional grade may be credited to controller or operator positions at the full performance level whether they work alone or with a small group of employees. It is the intent of this provision that only one operator on each shift be credited with an additional grade for shift-level responsibility.

Additional grade credit will be added only to plant operators at the full performance level who are assigned shift responsibility on a regular and recurring basis. Credit will not be given to plant operators who regularly work when a shift supervisor is present or at a nearby facility.

Most electric power control rooms and boiler plants run on a 7-day, 3-shift plan. Operators may be assigned to a specific shift or alternate working on all three shifts, including weekends. On second and third shifts and on weekends, one operator is typically designated as the "operator in charge" of the complete plant, including ancillary and stand-alone electric power controlling facilities which may be

geographically dispersed, and he or she is responsible for following instructions which are typically supplied in writing from a supervisor or by the "operator in charge" on the previous shift. The "operator in charge" typically performs additional duties which are more responsible and require a slightly higher level of skill and knowledge than full performance level operators who are on duty where a supervisor is available to provide specific guidance and assistance.

The "operator in charge" must have a thorough knowledge of the entire system of cogeneration, steam, and hot water, as well as the customer's priorities and schedules in order to locate problems and initiate immediate corrective action to maintain adequate operations. He or she, in the absence of written contingency procedures, must have the responsibility to decide whether to shut down the operation or attempt to bypass the trouble until corrective action has been completed if the equipment still in operation can handle the load. Typically, the "operator in charge" has responsibility to determine what work must be done and has the authority to approve overtime or to call in necessary maintenance personnel. The operator is responsible for relaying instructions to the next shift operator including problems encountered and action taken.

While these and other similar situations do not describe supervisory responsibilities, they represent situations which indicate that individuals designated as "operator in charge" have more responsibility and a higher level of skill and knowledge than operators who have a supervisor who is available for technical advice and guidance. When an operator is clearly assigned these additional responsibilities, one additional grade may be credited to operator positions at the full performance level.

The appellants responsibilities are comparable to the additional responsibilities described in the standard. They alternate working on all three shifts, including weekends and holidays. On second and third shifts and on weekends, they are the sole operator and clearly the "operator in charge" of the complete plant. During emergency operational conditions, they initiate immediate corrective action to ensure that power and steam are maintained. They determine what work must be done to keep the system operating and call in necessary maintenance personnel. They relay instructions to the next shift operator including problems encountered and action taken.

One additional grade is therefore credited over the grade 9 level of the appellants' position for their shift responsibilities. The appellants' position is properly graded at the grade 10 level.

SUMMARY

The appellants perform some duties that are properly classified in the Electric Power Controller, WG-5407, series at the grade 8 level and also perform work that is classified in the Boiler Plant Operating , WG-5402, series at the grade 9 level. They also serve as the "operator in charge" on shifts, performing additional duties which are more responsible and require a slightly higher level of skill and knowledge than full

performance level operators who are on duty where a supervisor is available to provide specific guidance and assistance. Their position therefore meets the criteria for crediting one additional grade for their shift responsibilities over the grade 9 level of the appellants' position.

DECISION

The appellants' position is properly graded at the grade 10 level. Following the criteria for evaluating mixed-series positions, the appellants' position is classified as Boiler Plant Operator (Electric Power Controller), WG-5402-10. This decision constitutes a classification certificate that is binding on all administrative, certifying, payroll, disbursing, and accounting offices within the Department of Defense.