Job Grading Appeal Decision
Under Section 5346 of Title 5, United States Code

Appellant: [appellants].

Agency classification: Air Conditioning Equipment Operator
WG-5415-10

Organization: [activity]
Engineering Service
Administrative Services
[name of Medical Center]
Department of Veterans Affairs
[city, state]

OPM decision: Air Conditioning Equipment Operator
WG-5415-10

OPM decision number: C-5415-10-02

/s/ Bonnie J. Brandon
Bonnie J. Brandon
Classification Appeals Officer

7/21/99
Date
As provided in section S7-8 of the Operating Manual, Federal Wage System, this decision constitutes a certificate that is mandatory and binding on all administrative, certifying, payroll, disbursing, and accounting officials of the government. There is no right of further appeal. This decision is subject to discretionary review only under conditions specified in section 532.705(f) of title 5, Code of Federal Regulations (address provided in the Introduction to the Position Classification Standards, appendix 4, section H).

**Decision sent to:**

[apellants' names and address]  
Assistant Administrator  
Human Resources Management Department  
[location of servicing personnel office]  

Deputy Assistant Secretary for Human Resources Management  
Department of Veterans Affairs  
Washington, DC 20420
Introduction

On March 26, 1999, the Dallas Oversight Division of the United States Office of Personnel Management (OPM) accepted a job grading appeal from [the appellants]. Their jobs are currently graded as Air Conditioning Equipment Operator, WG-5415-10. However, they believe their jobs should be evaluated at a higher grade. The appealed jobs are assigned to the [activity at a Veterans Affairs Medical Center], [city, state]. We have accepted and decided this appeal under section 5346 of title 5, United States Code.

To help decide this appeal, an Oversight Division representative conducted a telephone audit of the appellants’ jobs. The audit included interviews with the appellants, their immediate supervisor, and the assistant administrator (chief engineer). In reaching our classification decision, we reviewed the audit findings and the information of record furnished by the appellants and their agency, including their official job description, number [number]. All of the appellants are assigned to this job description. Although the appellants and their immediate supervisor agree that their official job description is an accurate statement of the major duties and responsibilities required by the job, the appellants believe they have not been given appropriate credit for performing additional shift responsibilities. Our review found that the job description contains the major duties and responsibilities assigned by management and performed by the appellants and is adequate for classification purposes. However, the following statement should be removed from the job description: “As there are no written procedures, they must use their own judgment, skill, knowledge and oral instructions to maintain proper plant operation.” That statement is misleading because written contingency procedures do exist.

The appellants believe that their jobs were downgraded improperly from WG-11 by the Department of Veterans Affairs (VA) as the result of a consistency review directed by OPM in 1994. The consistency review included the following jobs: 5402 Boiler Plant Operator, 5415 Air Conditioning Equipment Operator, 5046 Utility Systems Operator, and 4742 Utility Systems Operator Repairer. As a result of the consistency review, the appellants’ jobs were downgraded from Utility Systems Operator, WG-5406-11, to Utility Systems Operator, WG-5406-10. The appellants subsequently appealed this decision to the VA central office which changed the classification to Air Conditioning Equipment Operator, WG-5415-10.

Job information

The Engineering Service is responsible for the efficient operation of the utility plant; the maintenance of buildings, grounds, and equipment; the design and supervision of projects; and the conduct of the Medical Center’s safety and fire protection program. The appellants are primarily responsible for the efficient and continuous operation of all utility systems to provide an acceptable and safe hospital environment. The appellants operate a centralized multizoned centrifugal air conditioning plant, high pressure multifuel power boilers, graphics control center, emergency generators, and auxiliary equipment. They monitor water and steam levels, assure adequate pollution control, and make minor and major adjustments to equipment as needed. The boilers operate at various pressures and temperatures to produce hot steam or high temperature hot water. The steam produced is used for heating, the laundry plant, and food preparation and in heat ventilation and air conditioning systems/chillers for humidity control. The appellants
maintain shift records, recognize changes in operations which can lead to impending difficulties, and determine what needs to be done in emergency situations.

The appellants inspect, adjust, and maintain boiler, air conditioning, and associated equipment. The equipment includes two 800-ton chillers, two 500-ton chillers, one 500-ton heat exchanger, a separate 2,400-ton cooling tower that is used in the hotter months for the laboratory/surgical unit, two 12,000-gallon fuel oil tanks, and one 10,000-gallon fuel oil tank. The appellants also man the graphics control center that affects air handling, emergency management systems, critical alarms, and pumps throughout the Medical Center. The appellants log and monitor pertinent information from gauges and other technical devices and use the information to diagnose and correct malfunctions. The appellants are also involved with combustion control via use of pollution control apparatus (e.g., oxygen meters and sensors).

The air conditioning/boiler plant is manned by the appellants in three shifts, 24 hours per day, seven days a week. There is generally only one operator on duty on an assigned shift.

**Occupation, title, and standards determination**

The appellants’ jobs are mixed jobs, entailing shift responsibility for the operation and maintenance of the air conditioning and boiler plants. Such jobs are graded in keeping with the duties that involve the highest skill and qualifications requirements of the job and are a regular and recurring part of the job.

The WG-5406 Job Grading Standard (JGS) for Utility Systems Operator covers nonsupervisory work concerned primarily with operating two or more utility systems such as boiler plants, air conditioning, wastewater treatment, water treatment, and natural gas distribution for large buildings or small complexes, on a continuing basis. Operators must be familiar with and have the ability to adjust and regulate a variety of automatic or manually controlled auxiliary equipment to ensure maximum operating efficiency of the systems. This standard covers those jobs that entail operation of two or more utility systems, evaluated at the same grade level, when no single skill or knowledge of a single utility is predominant for recruitment, promotion, reduction in force, pay setting, and other personnel processes. This JGS states that the job should be titled, coded, and graded according to the JGS for the single occupation that represents the highest skill and qualification requirements of the predominant line of work if the highest level of work represents a single occupation. The appellants’ work is evaluated by application of the JGS’s for Boiler Plant Operator, WG-5402, and Air Conditioning Equipment Operator, WG-5415, to determine if the highest level of work represents a single occupation or if the work meets the criteria for assignment as Utility Systems Operator, WG-5406.

The appellants’ operator duties for the boiler plant are covered fully by the JGS for Boiler Plant Operator, WG-5402. This JGS covers positions concerned primarily with the operation and operational maintenance of single and multiple fuel water or fire tube boilers and associated auxiliary and pollution control equipment. These boilers operate at various pressures and temperatures in automatic or manual modes to produce steam or high temperature hot water to
provide heat for buildings, to operate industrial and institutional facilities and equipment, and to generate electricity. The WG-5402 JGS recognizes that technological advancement in the areas of electronic industrial controls and computerization of boiler facilities affect work within this occupation and, at the full performance level, may require familiarity or a basic knowledge of electronic control equipment.

The WG-5415 JGS is used to evaluate the appellants’ air conditioning system operation work. This JGS covers work concerned primarily with operating air conditioning systems for large buildings or complexes of buildings. The work requires the ability to adjust equipment to maintain desired temperatures and humidity; start, operate, and stop the air handling equipment and centrifugal compressors or absorbers; and detect and diagnose malfunctions in equipment. Operators must know the purposes and locations of all equipment in the systems and the auxiliary equipment such as cooling towers, water pumps, air compressors, liquid circulating pumps, and fans. The appellants’ responsibilities for operator functions of the Medical Center’s air conditioning system are fully covered by the grading criteria of the JGS for Air Conditioning Equipment Operator, WG-5415.

Based on the grade level determination that follows, the appellants’ jobs are titled and coded as Air Conditioning Equipment Operator, WG-5415.

Grade determination

Having determined that the appellants’ jobs contain regular and recurring duties of two different occupations, the grade is determined by evaluating the work against the criteria in the WG-5402 and WG-5415 JGS’s to arrive at the proper grade for the jobs.

Evaluation using the WG-5402 JGS

The WG-5402 JGS uses four factors for grade determination: Skill and knowledge, Responsibility, Physical effort, and Working conditions. These factors serve to provide both the framework within which the occupation is structured and specifically applicable criteria for the appraisal of levels of work. Typical of many trades and crafts jobs at higher grade levels in the Federal Wage System (FWS), physical effort and working Conditions are the same at all levels defined in the JGS. These two factors have grade level significance only in lower graded jobs. Because these two factors are not grade determining for the appellants’ jobs, they will not be addressed in detail.

Skill and knowledge

At the WG-8 level, boiler plant workers require a working knowledge of the structure and operating characteristics of boilers and associated auxiliary equipment. They know the location and function of numerous pumps, valves, regulators, gauges, recording instruments, controls, power operated dampers, conveyors, and other equipment associated with clean, safe, and efficient boiler operation. They have knowledge of fuel handling and distribution equipment and
systems, fuel firing mechanisms, feedwater treatment systems, electrostatic precipitators, flue gas scrubbers, and lime slurry systems. They have a basic knowledge of the chemical and physical characteristics of fuels and principles of combustion, steam generation, and heat transfer. They have a working knowledge of water tending, analysis, and basic chemical treatments, and they have a general understanding of the individual and combined effects of chemical additives. They are knowledgeable of basic operations necessary in start-up, shutdown, and restart procedures and in casualty control. They have skill in adjusting various conditions, such as air temperature, draft, and other furnace conditions, and in interpretation of meter and gauge readings. They are able to recognize malfunctioning equipment and systems. They have skill in the use of hand tools, electric and pneumatic power tools, and specialized tools of the trade. They have skill in applying preventive maintenance procedures and performing limited operational repairs.

At the WG-10 level, boiler plant operators start, operate, adjust, stop, maintain, and perform various operational repairs on single or multiple fuel power boilers and associated auxiliary and pollution control equipment. Boilers operated at this level require constant attention to maintain efficiency and control the formation of pollutants. Grade 10 operators apply a comprehensive knowledge of all operational phases of power boiler plant operations, such as water treatment, fuel systems, steam generation, and pollution control, and their interrelationships for efficient and economical generation of steam or high temperature water. They apply knowledge of the principles and theories pertaining to combustion, heat transfer, and steam generation in the operation of power boilers and associated auxiliary and pollution control equipment or systems. They have a thorough knowledge of water treatment equipment and systems. They have a thorough knowledge of chemical and physical aspects of sulfur-containing fuels, (e.g., oil, coal, and lignite), the chemical reactions involved in combustion, and the relationship between fuel quality and combustion efficiency. WG-10 boiler plant operators have a practical knowledge of environmental law and a thorough knowledge of procedures or adjustments during combustion to control pollutants in flue emissions, such as control combustion time, stack temperature, and excess air flow.

The appealed position exceeds the WG-8 level, where employees possess a working knowledge of the structure and operating characteristics of boilers and auxiliary equipment and function of pumps, valves, regulators, gauges, recording instruments, controls and other equipment. The appellants are expected to have more than the basic working knowledge of the chemical and physical characteristics of fuels and principles of combustion, steam generation, and heat transfer. The appellants must possess sufficient knowledge to operate, maintain, and repair all the equipment in the boiler plant. The WG-8 employee typically works in the presence of a higher-graded supervisor to provide technical direction, while the appellants are sole operators in the boiler plant.

The knowledge requirement for the appellants’ jobs does not fully meet the characteristics described at the WG-10 level. The appellants apply skill and knowledge to operate and repair multifuel boilers and pollution control equipment. The work requires skill and knowledge to use combustion control equipment, such as oxygen meters and sensors, take daily readings of chemicals and uses additives to keep boilers clean and prevent scales from building up on cooler
towers, and chemically treat boiler water before and after it is turned into steam. Boilers used by
the appellants are normally operated on natural gas, which has lower environmental impact than
sulfur-containing fuels (e.g., oil, coal, and lignite). The skill level required by the appealed job
is affected by use of natural gas as the primary fuel and the limited pollution control measures
required.

Our fact-finding revealed that the fuels used at the Medical Center (i.e., natural gas and #2 fuel
oil) do not entail operating the complex pollution control equipment described at the WG-10 level
in the JGS. Further, the appellants’ jobs do not require the full range of skill and knowledge to
deal with demanding pollution control requirements found at the WG-10 level. Because this factor
does not fully meet the WG-10 level, but substantially exceeds the WG-8 level, it is credited
properly at the WG-9 grade level.

Responsibility

At the WG-8 level, plant workers receive work assignments from a supervisor or a higher grade
worker in the form of written or oral instructions. Workers at this level are responsible for
observing meters and gauges to ensure proper combustion and prescribed temperatures, pressures,
and emissions and for performing routine operator maintenance of equipment. They are
responsible for understanding and responding to a variety of conditions indicated by meters and
gauges. Problems are reported to a higher grade worker or supervisor. Work at this level is
checked through observation of work methods and procedures. A higher grade worker or
supervisor is available for advice and assistance on any work problem encountered.

Grade 10 boiler plant operators receive work assignments from a supervisor or a higher grade
operator who is in charge of the facility or work shift. They are familiar with the total plant
layout including drawings and circuit diagrams of the boilers and auxiliary and pollution control
equipment. Boiler plant operators at this grade make independent decisions and judgments
regarding boiler plant operations, such as combustion and pollution control adjustments,
troubleshooting techniques, and equipment maintenance and repair procedures. The supervisor
or a higher grade operator with shift level responsibility is usually available to provide technical
assistance on difficult or unusual problems. Work is checked through occasional observation of
operational efficiency, production reports, and adherence to established operating techniques and
procedures.

The appellants do not receive technical direction as stated at the WG-8 level. The supervisor posts
preventive maintenance inspections (PMI’s) at the beginning of the month. The appellants will
assist air conditioning equipment mechanics in completing the PMI’s and other projects that the
supervisor assigns. The majority of the appellants’ assignments are generated regularly as a result
of plant operation requirements, system problems, and failures. Generally, the appellants only
contact their supervisor after a significant decision has been made to solve potentially hazardous
problems. They work independently with a higher level of responsibility than that described at
the WG-8 level. The appellants have authority to initiate and approve overtime when needed to
call in other operators or contractors to assist in peak or emergency situations. The appellants’
work is checked through occasional observation of operational efficiency, production reports and oral reports of project completion. While the appellants are responsible for monitoring and dealing with complete boiler operations as depicted at the WG-10 level, the system they operate does not have the pollution control equipment and the attendant decision-making requirements intended at the WG-10 grade level. Therefore, since the position substantially exceeds the WG-8 grade level, but does not fully meet the WG-10 level, this factor is properly credited at the WG-9 level.

Physical effort

This factor has no effect on the grading of the appellants’ jobs as there are no differences in physical effort required at grades 8 and 10. The work requires moderate to strenuous effort to lift and carry boiler parts and chemical supplies.

Working conditions

There are no differences in the working conditions described at grades 8 and 10. Workers work indoors and occasionally work outside for short periods where they are subject to prevailing weather conditions. Workers are subject to high temperatures, constant noise, rotating machinery, wood, dirt, grease, chemicals, oil, and fumes.

Special additional responsibilities

The WG-5402 standard describes special circumstances which warrant additional grade credit for functioning as the “operator in charge” on second and third shifts and on weekends. The following conditions must be clearly met to warrant the crediting of an additional grade.

(1) The operator in charge will be assigned shift responsibility on a regular and recurring basis. One operator is typically designated as the “operator in charge” of the complete plant (i.e., the primary steam or hot water generating facility and stand alone and satellite boilers that may be geographically dispersed).

(2) The operator in charge follows written instructions supplied by a supervisor or by the operator in charge on the previous shift.

(3) The operator in charge typically performs additional duties that are more responsible and require a slightly higher level of skill and knowledge than the full performance level operators who are on duty where a supervisor is available to provide guidance and assistance. The operator in charge must have a thorough knowledge of the entire utility system and the user requirements to locate problems and initiate immediate corrective action.

(4) In the absence of written contingency procedures, the operator in charge has responsibility to decide whether to shut down the operation or attempt to bypass problems until corrective action has been completed if the equipment still in operation can handle the load.
(5) 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.

The appeal record shows that the appellants' jobs meet some, but not all, of the conditions listed in the WG-5402 JGS. All of the appellants are assigned, on a regular and recurring basis, full shift responsibility for the boiler plant equipment, air conditioning equipment, and the graphics control center. Therefore, condition #1 is met. The appellants receive some written instructions from the supervisor for special projects and information from the previous shift leaders regarding problems encountered. On occasion an operator may call another operator to troubleshoot a problem. The appellants act on own initiative to solve time-sensitive and threatening situations, considering health and safety as the first priority, followed by contact with the supervisor, when necessary. Therefore, condition #2 is met. The appeal record shows that the appellants possess a thorough knowledge of the entire system. The appellants also perform minor and major repairs, but there is no evidence that they regularly perform above the full performance level which includes, as stated in their position description, the skill to solely operate, start, stop, and make refinements to the boiler and place into service or remove from service when necessary. Therefore, condition #3 is not met.

The appellants emphasize that the available guidance provides only basic direction and does not cover many possible contingencies. The supervisor verified that emergency start-up and shut-down procedures are posted on boilers, but he also considers those instructions to be vague. Written material provided in the appeal file substantiates that contingency plans and procedures are in place for essential major utility services and equipment. For example, Policy Memorandum No. RMS 138A-05 lists alternative actions to be followed if there are failures to chillers or pumps, air handler failure, or heating system failure. That memorandum also provides information for alternatives on failure in boilers, electrical power services, fire alarm systems and extinguishing systems, water supply, waste disposal systems, and power failure in the graphics control system. Another document, Policy Memorandum No. 138F-02, provides information on start-up procedures for boilers on gas and oil and emergency procedures for shut-down. Other memorandums outline that final responsibility belongs to the supervisor and that operators may find further direction in agency issuances, manufacturers’ maintenance and operations manuals, and established trade practices. The appeal file shows that the Medical Center and Engineer Service policies and procedures are drafted by the supervisor to meet the equipment management requirements of the Joint Commission on Accreditation of Healthcare Organizations. Covering all possible contingencies is not feasible; however, the contingency plans give sound instructions for start-up, shut-down, and emergency procedures that limit the judgment needed by the appellants. Consequently, condition #4 is not met.

The appellants have independent authority to decide what work needs to be done and the leeway to secure additional workers (e.g., other operators, mechanics, vendors, and contractors) during system failures, peak periods, or emergencies. The appellants contact workers and approve and
monitor overtime and leave instructions for the next shift operator, if needed. Therefore, condition #5 is met.

Summary

Based on the factors described in the JGS for Boiler Plant Operator, WG-5402, the appellants’ jobs meet the WG-9 level. Because all of the special conditions are not met, no additional grade is credited.

Evaluation using the WG-5415 JGS

The JGS for Air Conditioning Equipment Operator, WG-5415, covers nonsupervisory work concerned primarily with operating air conditioning systems for large buildings or complexes of buildings. The work requires the ability to adjust equipment to maintain desired temperatures and humidity; start, operate, and stop the air handling equipment and centrifugal compressors or absorbers; and detect and diagnose malfunctions in equipment. Operators must know the purposes and locations of all equipment in the systems and the auxiliary equipment such as cooling towers, water pumps, air compressors, liquid circulating pumps, and fans. The WG-5415 JGS uses the four standard FWS factors for grade determination: Skill and knowledge, Responsibility, Physical effort, and Working conditions.

Skill and knowledge

At the WG-9 level, air conditioning equipment operators know the function, purpose, and location of all equipment in the system operated. They know the principles of the functioning of refrigeration and air conditioning equipment and component systems as well as the principles underlying the electrical or steam feeder distribution system to the chiller plan. Operators at this level know how to operate and perform minor repairs on the air conditioning equipment with a minimum of guidance from the supervisor. WG-9 operators have skill in controlling plant operations from the control center without causing damage to plant equipment. They detect malfunctions on equipment and locate and diagnose operational problems to determine the probable cause of trouble and make necessary adjustments or minor repairs.

Grade 10 operators operate a centralized, multiple zone system similar to the grade 9 level and also check temperature sensing points in the buildings; adjust controls; start, regulate, and stop air handling equipment; and reset temperature controls and steam spray valves for humidity control. At the WG-10 level, equipment operators have a thorough knowledge of the functions and procedures necessary to run a centralized, multiple zone air conditioning system that contains more components, controls, gauges, and auxiliary equipment than the standard type. They know the operating principles of a variety of steam, gas, diesel, and electrically driven compressors and absorbers, including steam driven centrifugal compressors and the safety considerations involved in use of steam. They can troubleshoot the more unusual malfunctions in advanced equipment and systems by using numerous testing techniques and items of test equipment; they can quickly and
expertly pinpoint sources of trouble, whether in the controls or equipment itself and determine the nature and extent of repairs or adjustments needed.

The appellants apply a comprehensive knowledge of air conditioning equipment functions and refrigeration principles. They are responsible for a system that extends throughout critical areas within the Medical Center. The appellants troubleshoot problems using typical instruments and test equipment. They use knowledge to interpret results and to make appropriate adjustments. The appellants also perform preventive and corrective maintenance on automatic controls, pumps, tanks, air pressure piping, and other equipment. The skill and knowledge required for the appellants’ jobs compare favorably to the skill and knowledge described at the grade 10 level.

Responsibility

Operators at the WG-9 level maintain continuous observation of all operating equipment to recognize dangerous operating conditions. They utilize drawings and circuit diagrams of the plant and auxiliary equipment to locate defects in equipment. When unusual problems occur, the supervisor provides technical advice and assistance. The supervisor occasionally spot checks work for adherence to operating techniques and established practices and directives.

WG-10 operators require supervisory review normally only in emergency situations or of actions taken to resolve unique malfunctions. At the grade 10 level, the unusual complexity of the system, combined with the variety of air conditioning requirements and greater amount of auxiliary equipment, requires constant attention by the operator and a higher degree of responsibility at this grade level than at the next lower grade. Greater judgment and independent action is required on such matters as how to make interim repairs, when to shut down or activate equipment, and how to balance the more complicated systems found at this level.

The appellants have independent responsibility to perform work and make decisions while on shift. They only report to the supervisor in emergency situations if deemed necessary. Work is checked by supervisors on the following morning shift through conversations and/or production reports. The appellants work with systems of unusual complexity comparable to that described at the WG-10 level of the JGS. The appellants also monitor a graphic control system that controls critical points within the hospital and satellite points. The appellants also make repairs, changes and adjustments to a variety of mechanical equipment to include electrically operated doors, small appliance refrigeration, nurse call systems, elevators, and air handling equipment. The appellants’ responsibility fully meets the grade 10 level.

Physical effort

This factor has no effect on the grading of the appellants’ position. The physical effort required at grades 9 and 10 is identical. Prolonged physical effort is not routine. Operators at both grades occasionally lift objects weighing up to 50 pounds. The appellants’ requires standing, stooping, bending, and climbing on ladders.
Working conditions

There are no differences in the working conditions described at grades 9 and 10. Work is usually performed indoors with adequate light and ventilation. Operators occasionally work in areas of temperature extremes in the plant or are exposed to changes in temperature while working on outside cooling towers, roof exhausts, and ventilating fans. The appellants are exposed to the possibility of burns when working on steam and hot water lines and are subject to noxious gases, cuts, bruises, and scrapes.

Special additional responsibilities

The WG-5415 standard describes special circumstances which warrant additional grade credit for functioning as the “operator in charge” on second and third shifts and on weekends. The basis for the criteria listed under Special additional responsibilities for Boiler Plant Operator duties is also applicable for the Air Conditioning Equipment Operator. For the same reasons as presented under the boiler plant operations, additional grade credit is not warranted for the air conditioning equipment operation duties.

Summary

Based on the factors described in the JGS for Air Conditioning Equipment Operator, WG-5415, the appealed jobs meet the WG-10 level. No additional grade is credited for special additional responsibilities performed as operator in charge because all of the special conditions are not met.

Decision

In accordance with FWS mixed occupations and grading principles, the appellants’ position is properly classified as Air Conditioning Equipment Operator, WG-5415-10.