

Job Grading Appeal Decision
Under section 5346 of title 5, United States Code

Appellant: [Name of appellant]

Agency classification: Heavy Mobile Equipment Mechanic
WG-5803-10

Organization: [Appellant's work unit/location]
Bureau of Land Management
U.S. Department of the Interior

OPM decision: Heavy Mobile Equipment Mechanic
WG-5803-10

OPM decision number: C-5803-10-02

/signed/

Robert D. Hendler
Classification and Pay Claims
Program Manager
Center for Merit System Accountability

April 7, 2009

Date

As provided in section S7-8 of the *Operating Manual: Federal Wage System*, this decision constitutes a certificate which 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 and time limits specified in section 532.705(f) of title 5, Code of Federal Regulations (CFR) (address provided in the *Introduction to the Position Classification Standards*, appendix 4, section H).

As indicated in this decision, our finding show the appellant's official job description (JD) does not meet the standard of adequacy described in *Federal Wage System-Appropriated Fund Operating Manual, Subchapter S6-6.d*. Since JDs must meet the standard of adequacy, the agency must revise the appellant's JD to reflect our findings. The servicing human resources office must submit a compliance report containing the corrected JD within 30 days of the date of this decision to the San Francisco Oversight and Accountability Group.

Decision sent to:

[Appellant's name and mailing address]

[Name and address of appellant's representative]

[Address of appellant's servicing human resources office]

Bureau of Land Management

Director of Personnel
U.S. Department of Interior
Mail Stop 5221
1849 C Street, NW
Washington, DC 20240

Introduction

On October 12, 2007, the San Francisco Oversight and Accountability Group of the U.S. Office of Personnel Management (OPM) accepted a job grading appeal from [name of appellant]. On November 19, 2007, we received the agency's complete administrative report. The appellant's job is currently graded as Heavy Mobile Equipment Mechanic, WG-5803-10, but he believes because construction equipment manufactured today is more complex it should be upgraded to grade 11. The appellant works in the [appellant's work unit/location], Bureau of Land Management (BLM), U.S. Department of the Interior. We have accepted and decided this appeal under section 5346 of title 5, United States Code (U.S.C.).

General issues

The appellant believes the 5803 Heavy Mobile Equipment Mechanic job grading standard (JGS) is outdated. However, the content of a JGS issued by OPM to grade jobs is neither appealable nor reviewable (5 CFR 532.701).

Both the appellant and his supervisor have certified to the accuracy of the appellant's official JD [number], which is a standard JD used by the agency to describe jobs at field maintenance locations. However, we find the JD to be inaccurate in several areas. Under the "Major Duties" section, the JD indicates the incumbent of the job performs a "full-range of overhaul and repair work on a variety of complex and inter-connected systems found on wheeled and track-type heavy engineering equipment." A similar statement is made in the discussion of the "Responsibility" factor. Under the "Skills and Knowledge" factor, the JD indicates the incumbent "modifies, alters and/or substitutes parts to fit and mesh into systems for which the parts were not designed" and must possess the ability to "develop or improvise methods, alter parts and make repairs in the absence of technical guidelines." However, as discussed later in this decision, our findings disclosed the appellant does not work on complex and inter-connected systems, and does not modify or alter parts on a regular basis. Additionally, because technical guidelines and references fully cover his repair work, he is not called upon to improvise methods in the absence of them. Therefore, the agency must revise the JD to reflect our findings addressed in this decision.

The appellant makes various statements about the fact-finding process used by his agency to grade his job, and compares his duties to higher graded jobs performing similar duties in other agencies thus believing his job should be higher graded. In adjudicating this appeal, our responsibility is to make our own independent decision on the proper classification of this job. By law, we must make that decision solely by comparing his current duties and responsibilities to appropriate JGSs (5 U.S.C. 5346), and have considered the appellant's statements only insofar as they are relevant to making that comparison. Since comparison to JGSs is the exclusive method for grading jobs, we cannot compare the appellant's job to others in different agencies which may or may not be properly graded as a basis for deciding this appeal. Because our decision sets aside all previous agency decisions, the classification practices used by the appellant's agency in classifying his job are not germane to the job grading appeal process.

Job information

The appellant performs mechanical maintenance and repair on 25 or more pieces of road construction equipment and heavy trucks, and a variety of smaller pieces of equipment. He maintains, troubleshoots, diagnoses, repairs, inspects, tests, and operates heavy road construction equipment such as rollers, graders, dump trucks, tractors, excavators, backhoes, loaders, bi-directional brush cutters, belly dump trailers, tractors, compressors, water pumps, and lowboy trailers. Although the district has five mechanical shops, the appellant primarily works out of a mobile service truck for the majority of his work time. The truck is equipped with most of the equipment needed for field repairs including a large variety of mechanical tools, a laptop computer, motor analyzers, instruments for setting vehicle electronic control modules (ECMs), electric and gas welders, compression testers, alignment gauges, timing lights, etc. He travels up to 220 miles per day going to locations where vehicles have broken down.

The appellant's duties also include conducting vehicle inspections on a scheduled basis depending on hours of use, e.g., every 150-250 hours, or 1,000 hours by type of vehicle. Using pre-printed inspection forms, he inspects backhoes, graders, loaders, dump trucks, and excavators. Generally, the inspection forms are completed twice a month. When a problem is found, he takes care of it as his workload permits, but critical mechanical problems are dealt with immediately. He also occasionally inspects repairs done on vehicles referred to commercial shops. Equipment is replaced based on hours of use. Depending on cost, most are replaced within twelve years. The appellant provides input on what to purchase, and noted that vehicles are replaced with whatever is currently under production at the time.

The appellant uses skill and knowledge to diagnose and repair moderate mechanical problems covering a number of different systems including hydraulic, electrical, computerized, fuel, and air. He regularly performs preventative maintenance and inspection work on each piece of equipment, and occasionally operates welding equipment for fabrication and repair purposes. Major overhaul of equipment is minimal. Over a 16-year period he has referred a couple of major repairs to outside commercial repair shops. The appellant sends warranty work to the appropriate dealership or manufacturer for completion, unless it's a minor problem, such as replacing a wiper blade. The brush cutters suffer from the most mechanical failures.

The appellant independently plans and carries out his work, and within specified limits he is authorized to use an agency charge card to purchase parts and services. He obtains unscheduled work from work supervisors or individual operators. The greater portion of his workload is unscheduled. He plans and performs regular fleet maintenance, tracking all relevant records. He keeps his supervisor informed of his activities, and they collaborate on the purchase of new equipment.

In reaching our job grading decision, we have carefully reviewed all information furnished by the appellant and his agency, including the official JD which, although inaccurate in some aspects, we find to be sufficient overall for purposes of describing work performed and incorporate it by reference into this decision. In addition, to help decide the appeal we conducted separate telephone interviews with the appellant and his immediate supervisor.

Series, title, and standard determination

The agency allocated the appellant's job to the Heavy Mobile Equipment Mechanic, 5803 occupational series, titling it Heavy Mobile Equipment Mechanic, and the appellant does not disagree. We concur with the agency's title and occupational series determination. The JGS for the 5803 series contains appropriate grading criteria which we have applied below to the appellant's job.

The appellant mentions the inspection work he performs believing it increases the complexity of his job. All aspects of the job grading criteria must be fully met for jobs to be evaluated under the FWS JGS for Inspectors. Appropriate application of the JGS requires full and careful analysis of all relevant factors. The JGS for Inspectors indicates it is generally used to grade non-supervisory jobs that involve examining services, materials, and products that are processed, manufactured, or repaired by workers performing trade or craft work to determine that the physical and operating characteristics are within acceptable standards, specifications, or contractual requirements.

Under a formal inspection program, FWS inspectors typically perform several different categories of inspections. For task evaluations, they observe a mechanic performing a job and determine if it is performed in accordance with appropriate directives and technical orders and then grade the mechanic. In quality verification inspections, they evaluate maintenance procedures, processes, or products to determine if they are being accomplished in accordance with standards, codes, technical orders, work specifications, drawings, and work control documents. Inspectors also perform a variety of core and other inspections that may involve such things as work control documents, safety practices, maintenance of a clean work area, and maintenance and control of tools and equipment. They use checklists, rating instructions, technical data, and other guidelines in performing these inspections.

As noted in published OPM interpretive guidance (OPM's Digest of Significant Classification Decisions and Opinions, No. 07-06), "the inspection work covered by the JGS for Inspectors always involves comparison of work that has been partially or completely finished in accordance with standards, specifications, or contractual requirements." In contrast, inspections performed by the appellant are typical of those performed by journey-level trades and crafts employees prior to or after completing repair, maintenance, and/or overhaul work. Rather than part of a total inspection process, the appellant's review of commercially provided repairs is an extension of the "inspection" work typical of the testing and troubleshooting performed by mechanics and workers in the trade rather than the full range of FWS inspection work covered by the FWS JGS for Inspectors.

The appellant also asserts his use of a laptop computer to electronically diagnose problems on various systems, his purchasing duties, and tasks in welding and fabricating metal parts, all enhance the grade level of his work. We recognize that newer vehicles and equipment contain onboard electronic apparatus (e.g., ECMs) governing various operating systems whose problems can only be diagnosed by connecting portable computers to isolate faulty parts or connections. However, the use of ECMs does not in itself warrant a higher graded skill mix with regard to

equipment maintenance and repair. Although the appellant must possess the skill and knowledge to use the laptop computer, its use in many cases simplifies, rather than complicates the diagnostic process. While the laptop computer is a new and different work tool, it is still the basic skill and knowledge of the 5803 occupation, and the complexity of the equipment worked on which affects the overall complexity of the maintenance and repairs performed which control the grade of the job.

The appellant also mentions his purchasing duties, and the fact he occasionally welds metal parts. Similar to the preceding discussion, the knowledge and skill to perform those tasks do not constitute the paramount ones needed to perform the primary 5803 duties of the appellant's job. Additionally, in performing these collateral tasks the appellant is neither applying the full scope of knowledge, skills and abilities, nor carrying out the entire breadth of duties typical of positions classified in the Purchasing Series, GS-1105, or Welding 3703 occupation. For these reasons, that work does not impact the series or grade level of the appellant's job.

In classifying or grading jobs, the first step in the process is to determine the pay category of the work of the job based on the primary and paramount knowledge and skill required to perform the work. Since the primary and paramount knowledge and skill required to perform the appellant's work is trades in nature, the appellant's ancillary purchasing work may not control or influence the grade of his job.

Grade determination

The 5803 JGS uses four factors to determine the grade level of a job: *Skill and Knowledge*, *Responsibility*, *Physical Effort*, and *Working Conditions*. A job is graded as a whole against the level of demands found at different grades. No single factor is considered by itself, but only in relation to its impact on the other factors. A job is allocated to the grade best representing the overall demands of the work.

Skill and Knowledge

In order to diagnose, repair, overhaul, and modify heavy mobile equipment, systems, and vehicles, grade 10 mechanics have a thorough knowledge of the mechanical makeup, operation, and working relationships of heavy duty systems, assemblies, and parts, including such major systems as diesel, multi-fuel, and gasoline engines, including supercharged and turbocharged engines; turbine engines; automatic and manual transmissions and gear reduction systems, including those with torque converters, planetary gears, and power take offs; drive-line assemblies including differentials, power dividers, and dual speed axles; electrical and electronic systems and accessories, including ignition systems, charging and starting systems, and wiring and lighting systems; carbureted and fuel injection systems; and emission control systems.

Mechanics at grade 10 are knowledgeable of electrical, electronic, hydraulic, pneumatic, and other nonmechanical systems which have a functional relationship and effect on the operation of mechanical systems. They have a thorough knowledge of hydraulic lifting, loading, turning, and positioning systems and their mechanical, hydraulic, pneumatic, electrical, and electronic controls. They have a basic knowledge of electronics sufficient to identify and replace defective

components, such as sensors, diodes, and circuit boards, and they refer more complex problems to electronics mechanics. Heavy mobile equipment mechanics at this level are able to trace and locate defects which cause hydraulic and other major systems to fail or not perform up to specifications regarding power output, lifting capacity, speed, and pressure. They analyze malfunctions and determine the extent of repairs necessary by visual and auditory examinations and by the use of a wide variety of test equipment, such as engine analyzers, dynamometers, exhaust analyzers, vacuum and fuel pump testers, injector testers, ignition timers, tachometers, voltmeters and gauges, micrometers, calipers, and dial indicators.

Grade 10 mechanics are able to select and comply with technical manuals, illustrations, specifications, diagrams, schematics, and similar guides to make repairs and modifications according to specifications and procedures. For example, some of these guides describe and show the complete assembly of engines and transmissions, and the layout of hydraulic systems with related pneumatic, electrical, and mechanical connections and controls. Mechanics at this level have skill in measuring, fitting, and installing components, such as pistons, valves, bearings, gears, and cylinders, to specified clearances. They can connect, mesh, align, and adjust parts and systems to assure proper operation of the complete system or vehicle. For example, they adjust pumps, power boosters, drive chains, and tension devices; synchronize remote or manual electrical and hydraulic controls; and set timing of magnetos, distributors, injectors, and injection pumps to engine specifications.

Grade 11 mechanics apply greater skill and knowledge than mechanics at grade 10 in the repair, overhaul, and modification of vehicles and equipment which are substantially more complex than those described at grade 10. For example, interconnected systems can present greater difficulty in determining the cause of the problem and in isolating the malfunction. Grade 11 mechanics apply greater knowledge of the principles behind the various operational systems of the heavy vehicles and equipment in diagnosing and troubleshooting malfunctions when standard procedures and existing methods do not suffice. They exercise a greater level of skill in the use of diagnostic equipment, including computer-controlled test equipment, to identify problems which are difficult to locate and repair. They develop or improvise methods, alter parts, and make repairs in the absence of technical guidelines. For example, they modify parts to fit and mesh into systems for which the parts were not designed; improvise modifications to equipment to correct recurring malfunctions; or design modifications to meet special test requirements or other special needs. They are able to use specialized diagnostic equipment to diagnose problems in complex state-of-the-art electric and electronic systems to identify and replace defective components such as chips, sensors, and printed circuit boards, or to refer more complex problems to electronics mechanics.

Grade 11 mechanics regularly apply an intensive knowledge of the characteristics of various major mechanical and nonmechanical systems more complex than those typical of the grade 10 level. For example, they overhaul transmissions which have braking, steering, and differential systems mechanically integrated with the transmission; engines such as 12-cylinder and 1,000 horsepower engines, large engines with pistons which directly power multiple hydraulic and pneumatic systems, or other large multiple and interconnected engine systems; and systems which require great skill in making difficult, precise fittings and adjustments of moving parts to clearances of one ten-thousandth of an inch or closer, such as intricate fuel injection systems.

The appellant's job meets the grade 10 level. The appellant regularly diagnoses and repairs wheeled and track-type heavy construction and road maintenance equipment, and like grade 10 has a thorough knowledge of their complex mechanical, hydraulic, pneumatic, and electric systems, controls and features. He works on heavy duty systems and assemblies related to diesel and gasoline engines, including turbine engines, on vehicles with automatic and manual transmissions, gear reduction systems and torque converters, power differentials and dual speed axles and various electronic and electrical systems including ignition, charging and fuel injection systems. The most complex piece of equipment identified by the appellant is the primary loader which has an electronic controller on it (helicopter type pistol grip). The controller shifts the engine up/down and also controls the loader mechanism in loading material into the dump trucks. He repairs motors, pumps, valves, cylinders, and replaces hydraulic hoses and lines. Similar to grade 10, the appellant applies visual and auditory examination and uses a variety of test equipment to analyze malfunctions and determine needed repairs. These include engine and exhaust analyzers, vacuum, fuel ignition and injector testers, voltmeters and gauges, and the use of a laptop computer. Like grade 10, he traces and repairs defects which cause hydraulic systems failures limiting power output or lifting capacity.

Like grade 10 mechanics, the appellant is knowledgeable of the functional relationships between systems. For example, he repaired the trans-axle (transmission and axle combination) on a diesel powered brush cutter, which also employs a tri-system to operate the cutters. Although he did not overhaul the transmission, in making repairs he had to be knowledgeable of the relationship between the three speed transmissions built into the hydrostatic drive system, and the variable speeds produced as power is fed into the differentials for the axle. Comparable to grade 10, he has a basic knowledge of electronics sufficient to identify and replace defective components such as sensors, diodes, and circuit boards on various pieces of equipment.

The appellant attends technical training and refers to technical manuals, service managers at dealerships, professional contacts at commercial shops, computer diagnostic programs, and the Internet in order to make repairs and modifications. Like grade 10 mechanics he selects and complies with written safety guidelines, technical manuals and specifications, operator manuals, service manuals, and parts manuals covering all pieces of equipment he services.

Similar to grade 10 mechanics, the appellant exercises skill in measuring, fitting, and installing components, such as bearings, gears, and cylinders, to specified clearances. For example, he experienced a mechanical problem with one of the wheel shafts on a brush cutter. The shaft had become loose due to excessive wear on one of the component parts. Consequently, to compensate for future wear he added a shim to take up the clearance that had caused the excessive wear. This modification added the ability to adjust the part by setting a preload off the wheel bearings which can be adjusted within one one-thousandth of an inch. The appellant can also connect, mesh, align, and adjust parts and systems to assure proper operation of the complete system or vehicle. For example, he often makes adjustments to special components such as adjusting boards on graders, adding bracing and plating via welding to strengthen high stress areas, and adjusting tracks.

The appellant's job does not meet the grade 11 level. Unlike that level, he is not regularly and consistently assigned the types of difficult and complex work characteristic of grade 11 including

the overhaul and repair of substantially complex pieces of heavy equipment having multiple interconnected systems such as those found on large missile carrying tanks, locomotive cranes, and diesel electric floating derricks. In contrast, the heavy road construction equipment under the appellant's care does not contain complex interconnected systems, e.g., the cat has only two separate hydraulic systems, one for propulsion and one for blade control. The excavators and dozers operate their drive systems off of a computer and their applications off of different valves. The cat grader has a separate pneumatic system and a separate hydraulic system. One of the most complex pieces of heavy equipment (i.e., brush cutter), has two independent hydraulic systems which are not interconnected.

Unlike grade 11 mechanics, the record shows the appellant's duties do not include major mechanical overhauls, repairs, or rebuilds of engines, differentials, rear-ends, and transmissions, including transmissions with integrated braking, steering and differential systems. If the appellant finds an engine needs to be torn down, the work is sent to private sector mechanics because it takes an excessive length of time to do overhauls in-house. None of the equipment under the appellant's care requires regular adjustments of moving parts to clearances of one ten-thousandth of an inch or closer, and all vehicles are single engine lacking multiple, interconnected operating systems.

As opposed to grade 11 mechanics who perform jobs which are not fully covered by repair manuals and written guidance, and who must frequently improvise, substitute, and alter parts to fit and mesh in systems for which they were not designed, written references used by the appellant are comprehensive and cover most situations encountered in the course of work, thus improvisation is not required. In addition, although the appellant uses sophisticated diagnostic tools such as laptop computers, electronic digital meters, compression testers and various gauges, to identify, repair, and/or replace various parts and electronic components, these tools are applied to engine systems typical of the grade 10 level, e.g., bulldozers, road graders, front-end loaders, backhoes, and heavy construction and earth moving vehicles.

Due to the agency's emphasis on regular preventative maintenance and the initial purchase of high-quality equipment replacements, despite his extensive knowledge and experience the appellant is not called upon to apply the skill and knowledge to make the kinds of major mechanical repairs and overhauls of vehicles with systems typical of those described at grade 11.

Responsibility

Grade 10 mechanics make independent judgments and decisions within the framework of accepted trade practices and oral and written instructions by the supervisor. They use judgment in determining the extent of repairs needed, based on analysis performed, user reports, inspection reports, and vehicle records. They select work methods, tools, and manuals to complete work assignments. Work at this level is accomplished with little or no review during progress or upon completion.

Grade 11 mechanics exercise significantly more judgment and independence in determining the methods and techniques required to solve unusually complex maintenance and repair problems. For example, they plan and improvise repair procedures, find ways to mechanically and

physically adapt or alter items to fit and mesh into systems for which the items were not specifically designed, or find ways to diagnose and correct defects when existing methods and procedures do not give the desired results. Some mechanics at this level may recommend modifications to engineers who have final approval authority over significant design changes. The supervisor assigns work orally or through work orders or schedules. The employee independently determines work methods, sequences, tools, and equipment to use in making the extensive and complex repairs to the vehicles and equipment previously described at the grade 11 level.

The appellant's level of responsibility meets grade 10. Comparable to that level, the appellant works independently applying accepted trade practices. He is expected to analyze and determine the extent of repairs needed based on inspections and review of vehicle records. He plans work sequences, selects appropriate tools, refers to repair and parts manuals, and otherwise carries out assignments through to completion. Like grade 10, the appellant receives assignments orally or sometimes through work orders, and completes them with little or no supervisory review.

The appellant's level of responsibility does not meet grade 11 where mechanics apply significantly more judgment and independence in determining work methods and techniques to solve unusually complex and extensive maintenance and repair problems. While the appellant works independently, unlike grade 11 his recurring assignments do not require him to improvise repair procedures, determine methods to adapt or alter items for which they were not specifically designed, or find ways to analyze and correct equipment defects when existing methods do not produce the desired results. In contrast to the types of assignments typical of grade 11, the appellant performs repair jobs which are not unusually complex or extensive. When such repair situations do occur, because of time and resource limitations they are referred to private commercial shops. Unlike grade 11, in performing repairs the appellant uses readily available standard methods, techniques, and equipment for diagnosing and correcting defects which usually solve the mechanical problem encountered.

Physical Effort

Physical effort is described at the grade 8 level and is the same for all grades higher in the JGS. Heavy mobile equipment repairers at the grade 8 level work in tiring or uncomfortable positions for long periods. The work requires frequent standing, bending, reaching, stretching, climbing, and crouching. They work on top of, under, and in tight compartments of vehicles in cramped or awkward positions. They perform strenuous work while standing, lying, or sitting. They frequently lift and carry items, unassisted, weighing up to 40 pounds, and often exert similar effort in pushing, pulling and positioning parts, assemblies, and equipment. They frequently lift and move heavier items with the assistance of other workers or with lifting devices such as jacks, hoists, and cranes. They are sometimes required to work from ladders or work platforms at varying heights.

Because the appellant's physical effort in his job fully meets that described for work at grade 8 and above, this factor has no grade level impact and thus requires no further discussion.

Working Conditions

Working conditions are described at the grade 8 level and are the same for all grades higher in the JGS. Heavy mobile equipment repairers at grade 8 work both inside and outside. When inside, they are frequently exposed to drafts, changing temperatures, and noise which is difficult to talk above. When outside, they sometimes work in bad weather, mud or snow, or wet or icy areas. Both inside and outside, workers are exposed to irritations and discomfort from dust, grease, heat and fumes. They typically work on parts and systems which are dirty, oily, or greasy. They are subject to cuts, burns, chemical irritations, bruises, electrical shock, and injuries from falls while repairing, positioning, and moving equipment. They follow prescribed safety practices and use safety equipment such as protective ear devices, hard hats, hard-toe shoes, gloves, respirators, and protective clothing. Some of these safety items may be uncomfortable to wear or use, and may be worn or used for long periods.

Because the appellant's working conditions in his job fully meet those described at grade 8 and above, this factor has no grade level impact and thus requires no further discussion.

Decision

The appellant's job is properly graded as Heavy Mobile Equipment Mechanic, WG-5803-10.