

Classification Appeal Decision

Under section 5112(b) of title 5, United States Code

Appellant: [name]

Position: Civil Engineering Technician
GS-802-11
Position Number K34.0184A

Organization: Design Section
Engineering Branch
Support Services Division
[city] Area Office
Bureau of Indian Affairs
Department of the Interior
[city and State }

Decision: Civil Engineering Technician
GS-802-9
(Appeal denied, position downgraded)

OPM decision number: C-0802-09-31

Copy of decision sent to:

[appellant]
[Area Personnel Officer]
[Bureau Personnel Officer]
[Department Personnel Officer]

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Richard Quasney
Classification Appeals Officer
Washington Oversight Division

4/1/98
S)))))))))
Date



U.S. Office of Personnel Management
Washington Oversight Division
Office of Merit Systems Oversight

INTRODUCTION

On July 9, 1997, the Office of Personnel Management (OPM) accepted a position classification appeal from [appellant], who is employed as a Civil Engineering Technician, GS-802-11, in the Design Section, Engineering Branch, of the Support Services Division, in the [city] Area Office of the Bureau of Indian Affairs, Department of the Interior, in [city and State]. (The appeal was initially submitted to the OPM Dallas Oversight Division but was subsequently reassigned to the Washington Oversight Division on August 20, 1997.) [Appellant] requested that his position be classified as Civil Engineering Technician, GS-802-12. The appellant had previously appealed his position to the Department of the Interior, but it was sustained at its current grade level by decision dated June 5, 1997.

This is the final administrative decision of the Government, subject to discretionary review only under the conditions and time limits specified in title 5, U.S. Code of Federal Regulations, sections 511.605, 511.613, and 511.614.

SOURCES OF INFORMATION

In deciding this appeal, we considered information obtained from the following sources:

1. The appellant's letter of appeal dated July 1, 1997, with attachments.
2. The information submitted by the servicing personnel office on July 25, 1997.
3. A telephone audit of the appellant's position on November 3, 1997, and telephone interviews with the first-line supervisor, [name], on November 19 and December 8, 1997, and with the acting first-line supervisor, [name], on November 5, 1997; and a subsequent on-site desk audit on February 26, 1998, and corresponding interviews with [first-line supervisor] and the Branch Chief, [name].
4. Additional written materials and work samples furnished by the appellant during the OPM review.

POSITION INFORMATION

The appellant's duties and responsibilities are described in position description number K34.0184A, which was classified as Civil Engineering Technician, GS-802-11, by the Bureau of Indian Affairs on February 14, 1996.

The appellant plans and produces completed designs and layouts for the construction of streets in developed areas of Indian Reservations within the State of Montana. Using specialized computer software, he develops the street designs including such elements as horizontal and vertical alignment, slopes, grades, earthwork computations, and drainage structures. He determines requirements for and incorporates safety features including traffic lights, signing, guardrails, and striping. He prepares specifications for the materials to be used in construction (e.g., concrete, aggregates, asphalt, etc.) He also participates in public meetings to allow for local input during the design phase of the projects.

The appellant has recently been assigned “team leader” responsibilities within the Design Section. At this time, he is providing technical guidance and review over one lower-graded (and less experienced) engineering technician, although management intends that he eventually have two junior technicians on his team. There are no supervisory authorities or responsibilities inherent in this role. There is no provision in the Position Classification System for evaluating and thus crediting “team leader” responsibilities involving less than three other workers, since such positions have as their primary responsibility personal work accomplishment. As such, this aspect of the appellant’s position will not be addressed further in this evaluation.

The appellant's position description is accurate and adequate for classification purposes.

SERIES AND TITLE DETERMINATION

Series

The appellant’s position involves the application of practical engineering knowledge and acquired expertise in the planning and design of road construction projects, and thus is correctly allocated to the Engineering Technician Series, GS-802, which covers positions performing nonprofessional technical work in such functions as research, development, design, construction, inspection, test, or operation of engineering facilities, structures, systems, or equipment.

Title

The authorized title for nonsupervisory positions in this series performing work concerned with structures, such as buildings, bridges, dams, highways, railways, and other phases of civil engineering, is Civil Engineering Technician.

GRADE DETERMINATION

The appellant's position was evaluated by application of the standard for the Engineering Technician Series, GS-802, dated June 1969. Grade-level criteria in this standard are expressed in terms of two factors, Nature of Assignment and Level of Responsibility.

Nature of Assignment

At the GS-9 level, engineering technicians typically perform a variety of work relating to an area of specialization that requires the application of a considerable number of different basic but established methods, procedures, and techniques. Assignments usually involve independent responsibility for planning and conduct of a block of work which is a complete conventional project of relatively limited scope, or a portion of a larger and more diverse project. Assignments require study, analysis, and consideration of several possible courses of action, techniques, general layouts, or designs, and selection of the most appropriate. They generally require consideration of numerous precedents and some adaptation of previous plans or techniques. Often changes or deviations must be made during progress of an assignment to incorporate additional factors requested after commencement of the project or to adjust to findings and conclusions which could not be predicted accurately in the original plans. The

standard provides several illustrative assignments as examples of work typical of this level, one of which is as follows:

Prepares plans, specifications, and estimates for roads and airport runways including surfacing and pavements of various kinds not subject to extreme conditions of climate or loading. The requirements (e.g., load bearing capacity) are stipulated and the work involves the application of established engineering practices in designing the concrete slab, foundations, and drainage structures. Reviews standard and precedent designs and makes necessary selections and adaptations to meet specified requirements and field conditions peculiar to the locale, applies prescribed design criteria and standard and precedent specifications, and searches for current information on related design as developed by industry. In the design of runways considers suitability and availability of materials, subgrade and embankments, subbase, base courses, drainage, and pavement; considers factors such as meteorological, hydrological, topographical, and climatic features of area, soil foundations, frost susceptibility, base operation category, and use of facility.

The work performed by the appellant is basically compatible with the GS-9 criteria described above. The appellant has independent responsibility for the completion of street design projects that require consideration of various different layouts and adaptation of the design to accommodate the unique features of the site, but that can otherwise be characterized as conventional and of relatively limited scope. The design of the road or street must provide for such considerations as erosion control, drainage, sight distances, and grading appropriate to the posted speed, and incorporate such elements as traffic lights, signing, manholes, hydrants, curbs and gutters, wheelchair ramps, and the relocation of sewage and utility lines. Although these individual features vary from project to project, there is an essential similarity among projects and the techniques that are used in completing them. The roads designed do not include any technically complex features, such as bridges or overpasses, nor do they demand any unusual treatments or specifications. They are of limited scope, generally not exceeding 1-2 miles in length. Changes must occasionally be made to the preliminary designs to accommodate public concerns related to environmental issues, speed limits, or rights-of-way. Further, the GS-9 level example cited above basically characterizes the work of the appellant's position. Although the appellant designs streets rather than roads and airport runways, the functional characteristics are similar. For example, the appellant must examine contours on map models to determine drainage requirements; gather soil samples for laboratory analysis to determine soil type, its structural properties, and the thickness and composition of the surfacing thus required; and ensure that all vertical and horizontal curves are consistent with the intended speed limits. Although the geographic region is subject to frequent sub-freezing temperatures with the resultant frost heave problems, there are standard ways to compensate for these conditions (e.g., more aggregate bases, deeper excavations for utilities). Thus, this feature in itself does not require the appellant to deviate from the common and established practices for the area. Also, although the appellant designs streets rather than rural roads, the relative complexities thus involved (i.e., more critical drainage requirements and the need to work around or relocate sewer and utility lines) are not considered sufficient to exceed this level, and are actually considered more comparable to the types of difficulties that are expected to be encountered at the GS-9 level.

At the GS-11 level, engineering technicians perform work of broad scope and complexity that requires demonstrated ability to interpret, adapt, and apply many engineering principles and practices relating to an area of specialization, and some knowledge of related scientific and engineering fields. Technicians at the GS-11 level plan and accomplish complete projects of a conventional nature requiring the independent adaptation of a general fund of background information and the interpretation and use of precedents. They are typically confronted with a variety of complex problems in which considerable judgment is needed to make sound engineering compromises and decisions. Other related interests must often be considered, entailing frequent coordinative action with personnel in the fields concerned. There is a continuing requirement for external contacts. Resourcefulness and sound judgment are needed in selecting which of several sound alternatives is to be used in arriving at acceptable engineering compromises; ingenuity and creative thinking are required in devising new ways of accomplishing objectives and in adapting existing equipment or current techniques to new uses. By comparison, technicians at lower levels receive assignments that are usually segments or phases of the type independently carried out at grade GS-11 or that involve less complex systems and facilities requiring design adaptation. Technicians at the GS-9 level apply standard engineering methods and techniques whereas GS-11 technicians are typically required to be creative in devising ways to accomplish the work. The three illustrative assignments provided in the standard at this level are as follows:

Develops cost estimates for competitive bidding for a variety of multiple-use construction projects. Determines (a) construction operations and methods involved and the time required to complete each phase or feature, (b) various types and capacities of construction equipment required and cost of operation and maintenance, (c) material types and quantities, and (d) overhead, tax, and other costs.

Prepares designs and specifications for various utility systems such as heating, plumbing, air conditioning, ventilating, pumping, gas supply, and pneumatic control systems. Assignments characteristically involve utility systems for office buildings, technical laboratories, experimental buildings, pumping stations, and flood control facilities, where the complexity or nonconventional nature of the buildings and facilities entails design problems requiring considerable adaptation of precedents or design of features for which precedents are not directly applicable. Performs technical review of contractor-prepared designs and specifications for such systems.

Plans approach and details and conducts various experimental projects to develop electrical circuits equipment or breadboards of systems characterized by (a) performance requirements which are somewhat difficult to achieve because of combinations of conflicting characteristics as versatility, reliability, size, ease of operation, and maintenance; or (b) required use of techniques or components in combinations or applications differing from previous usage. Projects may entail development of new equipment or systems, simplification and improvement of present equipment, standardization of equipment, or development of new design techniques or methods.

The appellant's position does not meet this level either in terms of the complexity of the structures designed or the nature of the methods and techniques employed. The roads being

designed do not present the appellant with a variety of complex problems requiring engineering compromises and decisions and coordination with other related interests, and the adaptation of existing equipment or current techniques. Although different types of problems may be encountered, such as wetland conditions or difficult grading situations with attendant drainage problems, these are resolved through the application of established techniques. Unusual situations requiring engineering compromises, such as field conditions that deviate from design assumptions, are more likely to be encountered during the construction rather than the design stage and are resolved by the construction engineers. There is no indication that the appellant is regularly required to be particularly creative in devising ways to design the roads since the methodologies and approaches are basically standardized. There is a distinct quality of repetition in the work being performed, in that the road design projects do not vary significantly. Further, the nature of the work tends to be self-contained, thus requiring little or no coordination with related engineering interests. As an example, a technician involved in designing utility systems for installation in buildings or laboratories would have to actively coordinate with architects, structural engineers, electricians, and others to ensure compatibility with other work being carried out, whereas the appellant's external contacts are limited to obtaining maps and drawings from utility companies to determine the location of existing sewer, water, or gas lines. Unlike the GS-11 examples cited above, which each involve the design of a variety of markedly different types of structures, systems, or equipment, the appellant designs only one type of structure that differs from project to project only in the details of individual features. There are no particular characteristics in these projects that could be considered "experimental" or "nonconventional," or that entail the development of new design techniques to accommodate unusual operational requirements.

Level of Responsibility

In directing engineering technicians at the GS-9 level, the supervisor outlines requirements, provides information on any related work being performed, and furnishes general instructions as to the scope of objectives, time limitations, priorities, and similar aspects. The supervisor is available for consultation and advice where significant deviations from standard engineering practices must be made, and gives more detailed instructions when distinctly new criteria or techniques are involved. The supervisor observes the work for progress and for coordination with work performed by other employees or other sections and for adherence to completion and cost schedules. Standard methods employed are seldom reviewed but review is made for adequacy and for conformance with established policies, precedents, and sound engineering concepts and usage. Personal work contacts are carried out to resolve mutual problems and coordinate the work with that of personnel in related activities, client agencies, and contractors and architect-engineer firms. These contacts may involve clearing up doubtful points, advising on discrepancies found in meeting contract terms, considering recommendations for acceptable substitutes, and promoting adherence to agency standards and concepts of good engineering. Contacts outside the agency are usually arranged under supervisory guidance.

At the GS-11 level, technicians have considerable freedom in planning work and carrying out assignments. The supervisor makes assignments in terms of the major objectives, providing background information and advice on unusual problems that are anticipated or on matters requiring coordination with other groups. Unusual or controversial problems, or policy questions arising in the course of a project, may be discussed with the supervisor, but technical supervisory assistance is infrequently sought or required. The supervisor is usually informally advised regarding progress but there is little review during the progress of typical assignments.

Completed work in the form of recommendations, plans, designs, or reports is reviewed for general adequacy, conformance to purpose of the assignment, and sound engineering judgment. By comparison, technicians at lower grade levels receive advice and guidance on the application of nonstandard methods and techniques or in the solution of complex problems requiring significant deviations from established practice. Technicians at GS-11 have similar contacts to those at GS-9, but they tend to become more extensive, relate to more complex engineering and administrative problems, and are carried out without close supervision.

Upon initial assignment of each project, the appellant participates with the supervisor, construction engineer, and other involved personnel in discussing the general parameters of the project (e.g., vertical and horizontal alignment, intended speed limits, size of shoulder, etc.) Beyond that point, he proceeds independently with the design aspects of the work, following basic, established standards for highway design. The proposed design is then subject to a preliminary review, where the supervisor, appellant, and construction engineer make an on-site inspection and the appellant thereafter incorporates any required changes, and a second environmental review while the final plans are being developed. These final plans are reviewed in-depth by the construction engineer, who redlines any aspects where the plans do not fit site conditions, survey errors, or variances required in standard treatments.

The appellant's level of responsibility includes some aspects of the GS-11 level as described above, in terms of the independence with which he carries out the work and the absence of ongoing technical review or assistance outside the established review points. However, the level of responsibility described at GS-11 is predicated on the performance of the more complex assignments otherwise associated with that level. For example, the appellant's supervisor could provide no examples of unusual or controversial problems that may arise during the course of the work that would require supervisory assistance. Further, completed work is subject to a more complete and detailed review than is expressed at this level, where work is reviewed only for general adequacy and the achievement of objectives. The appellant's external contacts are also less extensive than would be expected at this level. He participates in public meetings to present preliminary plans, but is accompanied by the supervisor who is thus available to deal with any controversies that may erupt. The only other external contacts, with utility companies or material suppliers, involve relatively routine exchanges such as obtaining copies of plans or drawings or inquiring about the availability of materials, rather than the "complex engineering and administrative problems" expected at the GS-11 level. Thus, although the appellant works independently within the parameters of his assignments, those projects are not of the breadth and complexity such that they would present the sorts of problems and coordinative requirements that are inherent to work at the GS-11 level.

Summary

The appellant's position meets the GS-9 level under both of the classification factors addressed above. The GS-11 level is not met or approached under either factor.

DECISION

The appealed position is properly classified as Civil Engineering Technician, GS-802-9.

This decision constitutes a classification certificate issued under the authority of section 5112(b) of title 5, United States Code. This decision is mandatory and binding on all

administrative, certifying, payroll, disbursing, and accounting officials of the Government. In accordance with section 511.702 of title 5, Code of Federal Regulations, this decision must be implemented no earlier than the date of the decision and not later than the beginning of the sixth pay period following the date of the decision.