Classification Appeal Decision
Under section 5112 of title 5, United States Code

Appellant: [Appellant]

Agency classification: Industrial Engineer
GS-896-12

Organization: U.S. Mint
U.S. Department of the Treasury

OPM decision: Industrial Engineer
GS-896-11

OPM decision number: C-0896-11-01

/s/
Virginia L. Magnuson
Classification Appeals Officer

3/29/02
Date
As provided in section 511.612 of title 5, Code of Federal Regulations, this decision constitutes a certificate that is mandatory and binding on all administrative, certifying, payroll, disbursing, and accounting officials of the government. The agency is responsible for reviewing its classification decisions for identical, similar, or related positions to ensure consistency with this decision. There is no right of further appeal. This decision is subject to discretionary review only under conditions and time limits specified in the Introduction to the Position Classification Standards, appendix 4, section G (address provided in appendix 4, section H).

Since this decision lowers the grade of the appealed position, it is to be effective no later than the beginning of the sixth pay period after the date of this decision, as permitted by 5 CFR 511.702. The servicing personnel office must submit a compliance report containing the corrected position description containing the duties and responsibilities that form the basis of this decision and a Standard Form 50 showing the personnel action taken. The report must be submitted within 30 days from the effective date of the personnel action.

The personnel office must also determine if the appellant is entitled to grade or pay retention, or both, under 5 U.S.C. 5362 and 5363 and 5 CFR 536. If the appellant is entitled to grade retention, the two-year retention period begins on the date this decision is implemented.

Decision sent to:

[Appellant]

[Representative]

[Human Resources Officer]

Mr. Ronald A. Glaser
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Introduction

On August 15, 2001, the Dallas Oversight Division of the U.S. Office of Personnel Management (OPM) accepted a classification appeal from [appellant], for the position of Industrial Engineer, GS-896-12, [organization], U.S. Mint, U.S. Department of Treasury, [geographic location]. The appellant requests that his position be reclassified to GS-13. OPM received a complete administrative report on September 24, 2001. The appeal was subsequently transferred from the Dallas and Washington, DC Oversight Divisions to the Atlanta Oversight Division on February 22, 2002.

The appeal has been accepted and processed under section 5112(b) of title 5, United States Code (U.S.C.).

General issues

The appellant makes various statements about the agency’s evaluation of his position. In adjudicating this appeal, our only concern is to make our own independent decision on the proper classification of his position. By law, we must make that decision solely by comparing his current duties and responsibilities to OPM standards and guidelines (5 U.S.C. 5106, 5107, and 5112). Therefore, we have considered the appellant’s statements only insofar as they are relevant to making that comparison.

The appellant believes that the GS-896 standard is outdated and does not provide consistent classification with engineering technician positions. However, the adequacy of grade-level criteria in OPM standards is not appealable (section 511.607 of title 5, Code of Federal Regulations).

In reaching our classification decision, we have carefully reviewed all information furnished by the appellant, his supervisor and his agency, including the official position description.

Position information

The appellant is assigned to position description number [#]. The appellant and supervisor certified the accuracy of the position description. An OPM representative conducted an on-site audit with the appellant on February 13, 2002. We also conducted telephone interviews with the appellant’s immediate supervisor and the Human Resources Office representative.

Our fact finding revealed that while the position description contains the major duties and responsibilities of the position, it overstates the complexity of the products, as identified in this decision, nature and scope of commitments, and advisory, planning and reviewing functions. The position description indicates the incumbent represents the [organization] in conferences and meetings, often making decisions that bind the [organization] to a course of action. The appellant indicated that his involvement at conferences is limited. Additionally, there is no evidence in the record of significant commitment authority. Decisions on courses of action are made by other positions in the organization and at higher headquarters level. The advisory,
planning and reviewing functions, when performed, are peer consultation tasks. The position description should be corrected.

The appellant serves as the [organization] technical authority in industrial engineering. The appellant estimates that he spends about 80 percent of his time on circulation production, because of the sheer volume of coins produced, and 20 percent on numismatics. The [organization] manufactures circulating coins and numismatic coins and medals from coinage strips and blanks. Division manufacture includes the following processes: blanking, blank annealing and cleaning, upsetting, inspecting/reviewing, stamping, counting and bagging/packaging, and materials handling. The [organization] has a three-shift operation.

The appellant’s predominant duties and responsibilities involve applying industrial engineering principles and practices to production design improvements. He performs analyses to maximize the productivity of the [organization] workforce. He investigates and evaluates factors affecting performance of personnel, materials, equipment, and inherent integrated systems and performs or reviews the results of work measurement and work simplification studies. The appellant plans methods, techniques, and practices for new production equipment and maintains optimum plant layout for production areas. He recommends new procedures for management processes such as workflow and management of information. He establishes and maintains controls used by [organization] supervisors to ensure that production is accomplished according to schedule and works with production personnel to resolve production problems. The appellant provides advice to the division chief on production systems, machinery, equipment and personnel. He develops or selects appropriate techniques for measuring the efficiency of production activities and insuring maximum utilization of machinery, equipment, personnel and related resources. As appropriate, he works with other functional engineers and specialists on issues of mutual concern.

The appellant also selects methods to be used in setting work standards, develops appropriate reporting systems, trains employees in the use of work standards, and follows up to assure proper application of standards. He writes standard operating procedures for equipment operation. He works with or provides recommendations to other mints on problems, projects and functions of conventional nature.

The appellant’s immediate supervisor, a mechanical engineer, currently serves in a dual capacity over both the [organization] and the overall [organization]. His completed work is reviewed for adequacy of results, for general consistency with other projects and for conformance with administrative policies and regulations. There is little or no technical guidance provided by the supervisor except on critical or controversial matters.

The appellant’s position description and other material of record furnish much more information about his duties and responsibilities and how they are performed.

**Series and title determination**

The appellant does not contest the agency’s title or series determination for his position. The agency determined the appellant’s position is properly placed in the Industrial Engineering
Series, GS-896, and titled as Industrial Engineer. We concur with the agency’s series and title decision.

**Standard determination**

The agency used the Industrial Engineering, GS-896, position classification standard for grade level determination purposes. The Grade Level Guide for Engineer Positions Concerned With Production (Guide) supplements published classification standards for specific engineering series, including the GS-896 series. This Guide supersedes the grade-level criteria in the GS-896 standard for positions concerned with production. We must use it in evaluating positions that are entirely or primarily oriented to production. The appellant’s paramount duties require continuous production design improvements and analysis to maximize productivity of personnel, machinery and equipment and related resources, all of which relate to overall coin production. Therefore, the grade level criteria contained in the Guide must be used for grade level determination in evaluating his position.

**Grade determination**

The Guide uses two broad factors for grade level determination in evaluating positions covered by the Guide. These factors are Nature of Assignments and Level of Responsibility. Our evaluation of the duties and responsibilities of the appellant’s position follows.

**Nature of Assignments**

This factor deals with the scope, difficulty, complexity, and purpose of the work; originality required; and knowledge and judgment required.

At the GS-9 level, engineers independently plan and carry out a variety of assignments that pertain to the overhaul and/or manufacture of an assigned group of commodities or products. Assignments involve either new or established commodities or products. They use well-established approaches, closely related precedent, criteria and practices that apply to the product and functions. The engineers are required to understand the established design concepts and materials of construction associated with their specialized area. In addition to their professional engineering knowledge of the subject matter, GS-9 engineers apply sound knowledge of the production facilities, production equipment, materials, processes and test methods. They use available drawings and technical information to prepare specifications, drawings and standards as well as quality control documentation. They determine where items should be inspected during the production process, the need for new mechanical and electrical gages, and the characteristics and properties of any parts or raw materials needed in the production processes. They prepare plant layout plans for relocation of production or assembly lines, evaluate feasibility and desirability of replacing individual items of machinery in the line with updated models, provide modification requirements to others, and prepare various cost estimates. GS-9 assignments require knowledge of professional engineering practices, design analysis, quality control principles, production methods, and industrial processes necessary to control quality during an overhaul or manufacturing process.
At the GS-11 level, engineers apply extensive theoretical and practical knowledge of the means for overhauling or manufacturing the diverse products within their area of expertise. This knowledge covers the manufacturing or overhaul procedures and processes, necessary machinery and facilities, materials, assembly, and production testing of the item. Typically GS-11 engineers work with products that: (1) are complicated because they include several complex subassemblies; (2) require performance of many difficult and critical machining, assembling, or difficult-to-control processes in their production; and (3) require use of complicated testing and inspection methods and specially designed test equipment. The engineers must apply good judgment and originality. They use it to modify established production and quality verification concepts or criteria to fit the particular situation, to introduce a new type of machine tool, to automate some formerly manual process, or to conceive a new inspection technique.

The level of the appellant’s assignments meets the GS-9 level. The appellant’s primary commodity is coins. He performs continuous analyses to maximize the productivity of the workforce, equipment, and operations. For example, the appellant recommends the production floor layout of equipment such as annealing lines, milling machines, washers, labeling machines and sorters. He uses three-dimensional software to test layout feasibility. He also recommends equipment changes such as installation of safety controls on the furnaces so workers can visibly gauge proper equipment operation. He develops the purchasing specifications when equipment needs to be replaced. He writes contractor specifications for chemical purchases and operations such as equipment movement and tank sandblasting. He uses equipment instructions and translates them into simple language, accompanied with pictures or drawings on how to operate the equipment.

The overall coin production duties and exercise of judgment and originality are comparable to the GS-11 level. The appellant is expected to recognize possible new directions of approach and devise new or improved techniques and methods of obtaining effective results. This is exemplified by appellant’s studies to simulate the stresses on dies and planchets (blanks) during striking, determine the makeup of the quench, burnish and rinse chemicals used, and the air/gas mixture combustion on the annealing furnaces. He also worked on projects, sometimes with functional specialists such as the mint’s metallurgist, to improve the metal flow on planchet surfaces and to clean the blanks with a minimal amount of oil. He developed a database to serve as an inventory tracking program for all equipment and materials and a means to monitor the capabilities of the equipment. The appellant advises on problems, projects, and functions of conventional nature with the various mints at other sites. All of these activities require good judgment and originality in applying established industrial engineering concepts and principles similar to that described in the Guide at the GS-11 level.

The appellant’s need to research and adapt procedures, such as for the annealing furnaces, and develop associated standards for operation is closely related to one of the GS-11 assignment illustrations. In this example, the GS-11 engineer utilizes recognized approaches of an engineering discipline to adapt manufacturer’s repair and overhaul procedures to a local activity's particular facilities, equipment, and operations. The engineer analyzes the manufacturer's technical manuals and overhaul procedures and writes a locally applicable repair standard which details the work processes involved in tasks such as disassembly, overhaul, repair, and reassembly. The Guide also provides illustrations that describe GS-11 level work in planning the
production of pilot products; in preparing complete sets of process drawings; and, in detailing methods, processes, and sequences of operations to be followed in producing the product. Equipment modifications and new processes implemented by mint headquarters, such as those identified in its Selected Major Capital Projects – FY 2001 plan, require that the appellant study equipment changes and debugging methods and develop processes and procedures for the division’s operations.

The Guide describes six characteristics that typically are found in engineering assignments at the GS-12 level. We find that these characteristics are not present in the appellant’s position.

The first characteristic involves many different or special applications of the same product by various customers requiring consideration of such aspects as packaging or testing. The appellant’s principal product is coins, both clad and pennies. These are packaged in either bulk bags for circulating coins or, for numismatics, in sets usually containing 10 coins in a mylar package. The product applications for coins are more limited than the many different or special applications of the same product intended by this grade level characteristic.

The second characteristic concerns products that are advanced and especially complex because of numerous subassemblies or component parts. Information from the agency specifically states that "the coins themselves do not possess subassemblies or component parts, but each new intricate quarter design requires that the machinery and equipment" be monitored, modified and operated appropriately to effectively produce a coin that meets tolerances and quality levels. The intent of the Guide for this characteristic is not to focus on the machinery involved, but rather to recognize the advanced nature and complexity of the product. As confirmed by our factfinding, the production of coins does not involve numerous subassemblies or component parts.

The third and fourth characteristics deal with technical documentation or background information that is unproven or inadequate and with assignments that are without precedent. These assignments often involve production activities that are complex and of high risk. The appellant’s position is not characterized by unproven or inadequate technical documentation or complex and high-risk assignments without precedent. The record shows that technical information is available in most circumstances to differing degrees and the mint has a large library filled with technical materials. There is more information on the newer pieces of equipment and parts. Precedent, such as concepts developed and used in other places, is usually available, but must be researched and adapted for use at the mint. The appellant has engineering manuals, technical directives, drawings, manufacturers’ catalogs, and precedent situations available. The appellant must select, modify and adapt applicable guidelines to the solution of specific problems or initiatives in the production process.

The assignments are of a conventional nature rather than unprecedented and involving complex and high-risk activities. The appellant stated that new technologies he implements mostly involve replacing old controls on the equipment with new ones or replacing the equipment. For example, he had safety controls installed on the furnaces and installed new coin washers. He makes determinations as to the makeup of the quench, burnish and rinse chemicals used in production through performance trials to increase quality and reduce effluent. He consulted with the environmental office to ensure the chemical makeup would not have an adverse impact
elsewhere. He performed research on older American Gas Furnace annealing furnaces and developed a procedure to change the atmosphere in the annealing furnaces that eliminated the oxidation on the blanks. For this procedure, he worked with the environmental engineer in determining what needed to be done and making necessary adjustments.

The fifth characteristic is present when concurrent contracts with more than one producer complicate obtaining identical equipment from different production lines and assuring interchangeability of components and performance. The appellant may recommend equipment specifications and does provide advice on equipment, but he is not responsible for working with equipment contractors or making significant purchases.

The sixth and final characteristic refers to production activities that involve diverse machining, mixing, and other operations that must be done to very precise tolerances; and numerous significant design changes occurring during production. While coining operations must meet established and precise tolerances, the record does not show that operations require numerous design changes.

Although the incumbent plans for production of new quarter designs and works with his counterparts on creating technical documentation or background information for each of these new designs, this product does not meet the intent of the Guide. Rather, examples of GS-12 level assignments include production work with newly developed chemical products, unusually complicated pyrotechnic devices, new state-of-the-art products, large and complete new overhaul and repair facilities, and prototype or advanced products. In addition, the broad scope and complexity of assignments at the GS-12 level require engineers to apply substantial knowledge of additional engineering disciplines. The appellant does utilize some knowledge of chemical and environmental science and mechanical engineering as they relate to the production processes. The knowledge used, however, is not the substantial knowledge envisioned by the Guide to accomplish GS-12 level assignments and is not a required qualification for the position.

GS-12 engineers frequently must apply experienced judgment and knowledge of advanced engineering concepts to major production modification plans and requirements; and their decisions will determine whether it is most feasible to modify in-house production operations or to stop production and contract out product production. The appellant does not frequently apply advanced engineering concepts to major modification plans and requirements. He may make recommendations, but not decisions, relating to outsourcing production operations. The appeal record indicates that most modifications involve how many coins to produce rather than how to produce the coins.

GS-12 engineers are considered to possess such breath and depth of knowledge in their area of expertise that they often are required to provide technical guidance to other engineers who encounter difficulty in adapting and modifying established methods and precedents and in resolving the most perplexing or unusual problems. Within the plant, the appellant provides technical guidance to other engineers. He provides recommendations relating to production processes and systems and works with other engineers and scientists in resolving problems of mutual concern. The appellant does perform advisory, planning and reviewing duties with the various mints at other sites. However, these are consultative duties and the problems, projects
and functions involved are of a conventional nature, rather than perplexing or unusual problems typical of the GS-12 level. These also are presented as recommendations.

The Nature of Assignment meets the GS-11 level as described in the Guide.

Level of Responsibility

This factor deals with supervision received; availability and pertinency of guidelines; nature, scope and significance of recommendations, determinations, advice rendered and commitment authority; and nature and purpose of contacts.

At the GS-9 level, supervisors screen assignments in advance and furnish general instructions as to the scope of engineering activities. They review completed assignments thoroughly for appropriateness of approach, technical accuracy, soundness of conclusions, and conformance to policy. The supervisor gives detailed instructions when new criteria or new techniques are involved.

At the GS-11 level, supervisors typically provide assignment goals and general background information, when it is available, and a general technical review at assignment completion. Engineers consult agency engineering manuals, manuals on program requirements for quality assurance, production engineering handbooks, procurement regulations, etc., in determining methodology and completing analyses. GS-11 engineers normally carry out their assignments by modifying available guidelines or precedent approaches. They have many contacts with engineers inside and outside the organization. On those occasions, they make judgments and recommendations, and, commonly, they make on-the-spot determinations regarding the acceptability of finished products, production models, test procedures, etc. GS-11 engineers suggest changes in production processes and equipment to contractors and other engineers; and they recommend changes in materials, designs, and resources for the purpose of reducing costs, including manpower requirements, promoting standardization, and facilitating and reducing the cost of test and inspection activities. GS-11 engineers also represent their activity on assigned aspects, and coordinate their assignments with other engineers who are concerned with other engineering specializations. These activities are performed with considerable freedom from supervision, independence of action, and freedom from technical guidance.

The GS-11 level is met. The appellant functions independently and provides a weekly update to his supervisor. The supervisor informed us that he maintains awareness of the appellant’s activities, sometimes approves courses of action for the appellant, and only steps in when there is need for his intervention. Completed work is reviewed for adequacy of results, general consistency with other projects and for conformance with administrative policies and regulations. The appellant generally makes recommendations on production processes, materials, equipment, design and resources. The supervisor, the [organization], or other levels of authority review recommendations for decision or further action. Like GS-11 engineers, the appellant primarily selects, modifies and adapts applicable guidelines to resolve specific problems or initiatives. He has had to do research on old equipment in order to develop current procedures. The mint does have a technical library with technical information available in varying degrees in most circumstances.
The appellant’s contacts also meet the GS-11 level in that he has frequent contacts with key professional and engineering personnel in the plant, bureau headquarters and other mints, and contractors and coordinates assignments with the environmental engineer, metallurgist, other industrial engineers, and others concerned with specialized aspects of the assignment. He attends seminars occasionally and his involvement in conferences is limited.

At the GS-12 level, engineers define the scope, isolate problem areas, plan and execute problem solving of their assignments independently. They seek assistance from the supervisor on policy questions and radical departures with far-reaching implications. Supervisors review completed assignments to determine technical adequacy, achievement of goals, and policy compliance. GS-12 engineers characteristically plan and advise on pilot production and volume manufacture of products that do not lend themselves to use of established product evaluation and production methods. Guidelines and approaches used in previous manufactures are only partly applicable and require use of untried methods and machines. This is because items may be state-of-the-art and radically changed versions of existing ones.

GS-12 engineers, because of assigned commodities, typically coordinate with one or several other commands and agencies. They have continuing contacts with project engineers, contractors’ engineers, production plant workers, key inspectors, methods personnel, etc. They make technical decisions and recommendations on a variety of matters, without prior consultation with their supervisors. Decisions pertain to the acceptability of terms, production waivers, production methods, and acceptability of new designs of replacement production machinery from contractors.

The GS-12 level is not met. The overall level of supervision does not meet the GS-12 level where engineers routinely work independently, but on issues involving radical departures from policy with far-reaching implications; products that do not lend themselves to use of established product evaluation and production methods, and use of untried methods and machines. The record shows that on several occasions the appellant performed studies that resulted in use of methods new to the mint. He researched equipment (e.g., the intricacies of the gas systems for older American Gas Furnace annealing equipment) or methods used elsewhere. He used this information to develop procedures previously untried at the mint, such as the different concentrations of chemicals for the golden dollar production. These studies support credit for GS-11 level use of judgment and originality in adapting guidelines and precedent approaches. They do not meet the intent of untried methods characteristic of the GS-12 level. The appellant also does not have the decision-making authority and the broader personal contacts with other agencies and commands characteristic of GS-12 engineers.

The appellant’s Level of Responsibility meets the GS-11 level.

The appellant’s position meets the GS-11 level under both the classification factors above.

**Decision**

The position is properly classified as Industrial Engineer, GS-896-11.