

POSITION DESCRIPTION						
1. Position Number			2. Explanation (show any positions replaced)			
3. Reason for Submission <input type="checkbox"/> New <input type="checkbox"/> Redescription <input type="checkbox"/> Reestablishment <input type="checkbox"/> Standardized PD <input type="checkbox"/> Other						
4. Service <input type="checkbox"/> HQ <input type="checkbox"/> Field	5. Subject to Identical Addition (IA) Action <input type="checkbox"/> Yes (multiple use) <input type="checkbox"/> No (single incumbent)					
6. Position Specifications Subject to Random Drug Testing <input type="checkbox"/> Yes <input type="checkbox"/> No Subject to Medical Standards/Surveillance <input type="checkbox"/> Yes <input type="checkbox"/> No Telework Suitable <input type="checkbox"/> Yes <input type="checkbox"/> No Fire Position <input type="checkbox"/> Yes <input type="checkbox"/> No Law Enforcement Position <input type="checkbox"/> Yes <input type="checkbox"/> No			7. Financial Statement Required <input type="checkbox"/> Executive Personnel-OGE-278 <input type="checkbox"/> Employment and Financial Interest-OGE-450 <input type="checkbox"/> None required		10. Position Sensitivity and Risk Designation <u>Non-Sensitive</u> <input type="checkbox"/> Non-Sensitive: Low-Risk <u>Public Trust</u> <input type="checkbox"/> Non-Sensitive: Moderate-Risk <input type="checkbox"/> Non-Sensitive: High-Risk <u>National Security</u> <input type="checkbox"/> Noncritical-Sensitive: Moderate-Risk <input type="checkbox"/> Noncritical-Sensitive: High-Risk <input type="checkbox"/> Critical-Sensitive: High-Risk <input type="checkbox"/> Special Sensitive: High-Risk	
		8. Miscellaneous Functional Code: -- BUS: --	9. Full Performance Level Pay Plan: Grade:			
11. Position is <input type="checkbox"/> 2-Supervisory <input type="checkbox"/> 4-Supervisor (CSRA) <input type="checkbox"/> 5-Management Official <input type="checkbox"/> 6-Leader: Type I <input type="checkbox"/> 7-Leader: Type II <input type="checkbox"/> 8-Non-Supervisory		12. Position Status <input type="checkbox"/> Competitive <input type="checkbox"/> SES <input type="checkbox"/> Excepted (specify in remarks) <input type="checkbox"/> SL/ST			15. Fair Labor Standards Act <input type="checkbox"/> Exempt <input type="checkbox"/> Nonexempt	
	13. Duty Station	14. Employing Office Location	16. Cybersecurity Code #1: #2: -- #3: --	17. Competitive Area Code: Competitive Level Code:		
18. Classified/Graded by	Official Title of Position		Pay Plan	Occupational Code	Grade	Initial Date
a. Department, Bureau, or Office						
b. Second Level Review			--		--	
19. Organizational Title of Position (if different from, or in addition to, official title)			20. Name of Employee (if vacant, specify)			
21. Department, Agency, or Establishment U.S. Department of the Interior			c. Third Subdivision			
a. Bureau/First Subdivision			d. Fourth Subdivision			
b. Second Subdivision			e. Fifth Subdivision			
22. Supervisory Certification. I certify that this is an accurate statement of the major duties and responsibilities of this position and its organizational relationships and that the position is necessary to carry out Government functions for which I am responsible. This certification is made with the knowledge that this information is to be used for statutory purposes relating to, but not limited to: FLSA determinations; position sensitivity and requirements; and appointment/payment of public funds. False or misleading statements may constitute violations of such statutes or their implementing regulations.						
a. Typed Name and Title of Immediate Supervisor			b. Typed Name and Title of Higher-Level Supervisor or Manager (optional)			
Signature		Date	Signature		Date	
23. Classification/Job Grading Certification. I certify that this position has been classified/graded as required by Title 5, U.S. Code, in conformance with standards published by the U.S. Office of Personnel Management or, if no published standards apply directly, consistently with the most applicable published standards.			24. Position Classification Standards Used in Classifying/Grading Position			
Typed Name and Title of Official Taking Action						
Signature		Date				
25. Position Review	Initials	Date	Initials	Date		
a. Supervisor				Information for Employees. The standards, and information on their application, are available in the personnel office. The classification of the position may be reviewed and corrected by the agency or the U.S. Office of Personnel Management. Information on classification/job grading appeals, and complaints on exemption from FLSA, is available from the personnel office or the U.S. Office of Personnel Management.		
b. Classifier						
26. Remarks						

**DOI Standard PD
PD# DI01000**

Classification: Engineering Technician, GS-0802-07

INTRODUCTION

This position is located within an operating office (Office) within a bureau or bureau equivalent (Bureau) within the Department of the Interior (Department). This position works as an Engineering Technician in a variety of work situations aligned with and/or supporting professional engineering and architecture fields. Specializations of technical engineering work may include architecture, civil, drafting, electrical, materials, and mechanical.

MAJOR DUTIES (Accounts for a minimum of 25% of work time)

Technical Evaluation and Analysis

Performs technical work assignments that consist of a number of different and unrelated processes. Analyzes the issues and project objectives and makes adjustments to standard procedures or operations based on situations and conditions encountered in the field or during the study. Recommends changes to practices and procedures for similar studies. Extracts data from a variety of sources and interprets the data with consideration of the source characteristics; recognizes and reports errors, inconsistencies, and other deficiencies in technical data; and performs quality assurance and data integrity review of electronic data and records. Completes precise measurements using standard procedures and formulas.

Examples of technical evaluation and analysis include: 1) Computes and tabulates quantities. Performs quality assurance checks on preliminary and final estimates of quantities prepared by others. Check accuracy of calculations; 2) Computes vertical and horizontal curves and rough earthwork balance by using earthwork charts and diagrams; and 3) Uses field notes and information from a variety of sources to plot alignments, grade lines, cross sections, and feature locations.

Drafting

Interprets plans and specifications. Prepares complete sets of shop drawings from layouts or sketches. Drawings include several cross-sectional and subassembly drawings; dimensions, tolerances, fits, and fabrication techniques; standard parts identification; and information from the design originator, technical handbooks, manuals, and manufacturers' publications. Reviews drawings for conformance to established engineering standards, criteria, and project requirements.

Instrumentation and Equipment

Uses, adapts, or adjusts equipment for optimum operation. Inspects and tests a variety of equipment and materials. Determines results not always susceptible to precise, quantitative measures but requires some subjective determinations. For testing, places instrumentation in accordance with test plans and specifications and observes recorded test data for unusual responses indicating failure or malfunctions of the test equipment; visually examines test items

or materials for apparent damage or change; and analyzes results and reports findings, including recommending modification of future test procedures.

Inspections and Assessments

In addition to assessments and inspections described under “Technical Evaluation and Analysis” and “Instrumentation and Equipment” conducts standard inspections and assessments. Reviews findings and makes suggestions for improvements to higher graded technicians and supervisor.

Documentation and Communication

Drafts technical documentation for assigned technical engineering work assignments. Selects the method for presenting data for internal use. Keeps records, prepares reports, reviews findings, and makes recommendations and suggestions to higher graded technicians and supervisor.

Other Duties (Cannot account for more than 75% of work time)

Compliance: Provides administrative support in connection with regulatory compliance program oversight.

Database and Records Management: Uses databases to maintain engineering data and records. Participates in the development, maintenance, and/or operation of engineering data collection and storage systems. Ensures necessary data and records are properly classified, stored, collected, updated, maintained, archived, and retained in accordance with applicable records management policies and practices.

Performs other related duties as assigned.

FACTORS

Factor 1. Knowledge Required by the Position (Level 1-4 550 points)

Practical knowledge of, and skill in applying, standard technical engineering procedures and operations requiring training or experience sufficient to carry out assignments involving extracting and evaluating data, engineering drafting, inspecting and testing materials and other test items using equipment and instrumentation and reading and reporting on results and findings, reviewing findings and making suggestions for improvements, and keeping records and preparing standard reports.

Practical knowledge of related disciplines such as geology, hydrology, electrical, mechanical, soil science, and economics in order to work cooperatively with professionals, specialists, and technicians of these disciplines when performing technical engineering support assignments.

Skill in using, adapting, adjusting, and reading instruments for data collection. Skill in recognizing errors, inconsistencies, and deficiencies in technical data.

Knowledge of common engineering data collection methods. Knowledge of data sources within the Bureau and industry. Skill in identifying and assessing the data needed for technical engineering assignments.

Skill in interpreting plans and specifications and presenting data in the form of drawings, models, or tables.

Knowledge of basic mathematical principles sufficient to complete exact measurements using standard formulas, including computing quantities.

Skill in conducting standard inspections and assessments.

Knowledge of and skill in using automated engineering systems, applications, and instrumentation in order to perform technical engineering support assignments such as drafting drawings, performing calculations using standard formulas, and assessing the validity of generated results.

Skill in effectively conveying information to individuals or groups, taking into account the nature of the information (e.g., technical) and making clear presentations of information and data. Skill in writing and presenting data in a clear, concise, and organized manner. Ability to establish collaborative working relationships.

Factor 2. Supervisory Controls (Level 2-3 275 points)

The supervisor or designated employee outlines or discusses possible problem areas and defines objectives, plans, priorities, and deadlines; and provides assistance on controversial or unusual situations with no clear precedents. The employee independently plans and carries out assignments in conformance with accepted policies and practices; resolves commonly encountered work problems and deviations by exercising judgment in selecting appropriate instructions, policies, guidelines, or accepted practices; and brings controversial information and findings to the supervisor's attention for direction. The supervisor or designated employee reviews completed work for conformity with policy, the appropriateness of the employee's approach, technical soundness, and adherence to deadlines.

Factor 3. Guidelines (Level 3-3 275 points)

The employee uses a variety of guidelines, manuals, precedents, and standard reference materials; however, they are not completely applicable to the work or have gaps in specificity. The employee uses judgment and initiative in interpreting and adapting guidelines, such as policies, regulations, precedents, and work directions for application to specific cases or problems. The employee analyzes results of adaptation and recommends changes to practices and procedures.

Factor 4. Complexity (Level 4-3 150 points)

Work assignments involve a number of different and unrelated processes in completing assignments or projects which require accuracy and attention to detail. The employee analyzes the subject, phase, or issues involved in each assignment to adjust or deviate from standard work methods based on situations and conditions at a field or work site and to coordinate and plan

phases of the assignment. The employee exercises independent judgment and skill to interpret and analyze considerable data, plan work, or refine methods and techniques to determine the best course of action for problem resolution. Examples include: preparing drawings for construction or equipment designs and obtaining needed information from the designer; reviewing design and design data for conformance to established engineering standards and project requirements; and checking accuracy of calculations. The employee may participate on teams that complete work of an experimental nature where many applications require feasibility studies, cost estimates, time studies, revised design, and performance testing – the employee’s role in these situations is to perform assigned technical support portions of the work.

Factor 5. Scope and Effect (Level 5-3 150 points)

This position works as an Engineering Technician in a variety of work situations aligned with and/or supporting professional engineering and architecture fields. Specializations of technical engineering work may include architecture, civil, drafting, electrical, materials, and mechanical. The work requires applying a considerable number of different basic but established methods, procedures, and techniques. The work affects the design or operation of systems, programs, processes, or equipment (e.g., the adequacy of field investigations, testing operations, or conclusions; safety of employees through proper equipment operations and testing and through proper construction methods); and the timeliness and economy of operations, services, or equipment.

Factors 6 & 7. Personal Contacts/Purpose of Contacts (Levels 6-2/7B 75 points)

Contacts include employees, supervisors, and managers within the Department, both inside and outside of the immediate office or related units. Contacts may also include vendors and members of the general public in a moderately structured setting. Contacts within the Department/Bureau may be from various levels, such as: headquarters; regions; districts; field offices; or other operating offices at the same location. Contacts are to acquire or exchange information or facts needed to complete an assignment, such as exchanging information regarding the purchase, repair, maintenance, or design of equipment. Contacts are also to plan, coordinate, or advise on work efforts or to resolve operating problems by collaborating with individuals and groups who are working toward mutual goals and objectives.

Factor 8. Physical Demands (Level 8-1 5 pts; 8-2 20 pts; 8-3 50 pts)

(Level 8-1) The work is primarily sedentary, although there is some walking in offices, production areas, utility plants, maintenance, and work areas. Work may involve carrying lightweight items, such as briefcases, notebooks, test equipment, and work papers or may involve operating a motor vehicle. The work does not require any special physical effort or ability.

(Level 8-2) The work requires some physical exertion, such as long periods of standing; walking over rough, uneven, rocky, or slippery surfaces; recurring bending, crouching, stooping, stretching, climbing, or similar activities; recurring lifting of light to moderately heavy items

weighing less than 50 pounds (i.e., 23 kilograms), such as testing or measuring equipment; and/or regular visits to construction, industrial, marine, or other outdoor sites.

(Level 8-3) The work requires considerable and strenuous physical exertion, such as: frequent climbing of tall ladders, staging, or scaffolding in dry-dock and vessel areas; working in areas where footing can be treacherous (e.g., on rocky banks of bodies of fast-water, slippery docks, or steep hillsides); lifting heavy objects weighing 50 pounds (i.e., 23 kilograms) or more; and frequent crouching or crawling in restricted areas.

Factor 9. Work Environment (FL 9-1 5 pts; 9-2 20 pts; 9-3 50 pts)

(Level 9-1) The work area is usually an office setting adequately lighted, heated, and ventilated. The work environment involves everyday risks or discomforts requiring normal safety precautions.

(Level 9-2) Work involves regular and recurring exposure to moderate risks and discomforts, such as the following: dust, strong odors, or fumes from fuels, chemicals, or engine exhaust; high levels of noise and vibration, dust, grease, electrical hazards, uncovered moving parts of machinery, moving machinery; or outdoor conditions involving moderate exposure to rain, cold/hot weather, icy streams, and rivers. The work environment requires the employee to stay alert continually and to take special safety precautions including wearing special protective items of clothing.

(Level 9-3) The work environment involves high risks of exposure to potentially dangerous situations or unusual environmental stress requiring a range of safety and other precautions where conditions cannot be controlled (e.g., working at great heights under extreme outdoor weather conditions).

Total Points and Grade Conversion

Point Range = 1485 (low) to 1575 (high)

Grade Conversion Point Range = 1355-1600 for GS-07

Final Grade = GS-07