POSITION DESCRIPTION

1. Position Number DI00600

2. Explanation (show any positions replaced)
New DOI SPD

3. Reason for Submission
☐ New ☐ Redescription ☐ Reestablishment ☒ Standardized PD ☐ Other

4. Service
☐ HQ ☐ Field

5. Subject to Identical Addition (IA) Action
☒ Yes (multiple use) ☐ No (single incumbent)

6. Position Specifications
Subject to Random Drug Testing ☐ Yes ☐ No
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Subject to Medical Standards/Surveillance ☐ Yes ☐ No
Telework Suitable ☐ Yes ☐ No
Fire Position ☐ Yes ☐ No
Law Enforcement Position ☐ Yes ☐ No

7. Financial Statement Required
☐ Executive Personnel-OGE-278
☐ Employment and Financial Interest-OGE-450
☐ None required

8. Miscellaneous
Functional Code: --
BUS: --

9. Full Performance Level
Pay Plan: GS
Grade: 11

10. Position Sensitivity and Risk Designation
Non-Sensitive
☐ Non-Sensitive: Low-Risk
Public Trust
☐ Non-Sensitive: Moderate-Risk
☐ Non-Sensitive: High-Risk
National Security
☐ Noncritical-Sensitive: Moderate-Risk
☐ Noncritical-Sensitive: High-Risk
☐ Critical-Sensitive: High-Risk
☐ Special Sensitive: High-Risk

11. Position is
☐ 2-Supervisory
☐ 4-Supervisor (CSRA)
☐ 5-Management Official
☐ 6-Leader: Type I
☐ 7-Leader: Type II
☒ 8-Non-Supervisory

12. Position Status
☒ Competitive ☐ SES
☐ Excepted (specify in remarks) ☐ SL/ST

13. Duty Station

14. Employing Office Location

15. Fair Labor Standards Act
☐ Exempt ☐ Nonexempt

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	Engineering Technican	GS	0802	11	RL	06/10/22
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
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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

Signature **Date**

b. Typed Name and Title of Higher-Level Supervisor or Manager *(optional)*

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.*

Typed Name and Title of Official Taking Action
Renae Lockwood, Classification Program Manager

Signature RENAE LOCKWOOD Digitally signed by RENAE LOCKWOOD Date: 2022.06.10 08:37:28 -06'00' **Date**

24. Position Classification Standards Used in Classifying/Grading Position
Job Family Position Classification Standard for Technical Work in the Engineering and Architecture Group, 0800, May 2007

25. Position Review	Initials	Date	Initials	Date
a. Supervisor				
b. Classifier				

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.

26. Remarks GS-11 is at full performance level (FPL).

DOI Standard PD
PD# DI00600

Classification: Engineering Technician, GS-0802-11

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 with extensive experience working on a wide range of substantive, complex work assignments aligned with 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 evaluation and analysis using many different and unrelated processes and methods requiring ingenuity, and experienced knowledge and skill, including in emerging practices and methods, to identify, evaluate, assess unusual circumstances, and recommend appropriate solutions to a broad range of complex interrelated problems. Develops innovative methods, approaches, or procedures. Provides comprehensive management advisory and technical services on substantive functions and practices.

Examples of technical evaluation and analysis work include:

- Develops, prepares, and/or reviews plans, specifications, and cost estimates for construction and/or proposed/ongoing projects.
- Reviews designs for compliance with current industry practices and ensures designs fit field conditions; suggests modifications when issues are identified. Prepares draft design requirements and specifications. Utilizes automated engineering drafting and design systems and applications.
- Uses a variety of contracting processes to provide engineering oversight for construction, architecture, or engineering contracts. Monitors the work for compliance with contract requirements and specifications. Recommends special contract requirements related to engineering services. Performs technical analysis of construction schedules, proposals, submittals, shop drawings, modifications, and other contractor-provided documentation.
- Teams with engineer(s) to analyze evolutionary research, and testing requirements and objectives to plan, implement, and configure experiments.
- For research and testing assignments, interprets requirements, defines procedures, and validates methods for planning, delivery, and execution of unique experiments to meet research project requirements. Performs quality assurance on testing methods, interprets test results, and recommends means and methods based on analytical evaluation of test results.
- Interprets extensive, incomplete, or conflicting data. Validates data used for and loaded into electronic/automated design and records management applications. Provides technical oversight in ensuring data integrity.
- Evaluates new materials technology and sophisticated or complex materials.
- Prepares right-of-way, utility and railroad agreements, and easements.

Instrumentation and Equipment
Advises on instrumentation, equipment, and laboratory system capabilities; and selects, calibrates, and fabricates highly sophisticated laboratory systems. Recognizes data anomalies and determines if they are due to equipment or user errors and takes action to make changes to resolve problems. Troubleshoots, fabricates, adjusts, modifies, and improves test systems, test articles, and materials. Reviews and approves test results. Ensures laboratory accreditation is maintained, including ensuring contractors maintain laboratory accreditation.

Inspections and Assessments
In addition to assessments and inspections described under "Technical Evaluation and Analysis" and "Instrumentation and Equipment" conducts difficult inspections and assessments, including condition assessments of civil works facilities, buildings, marine vessels, hydraulic systems, mechanical and electrical systems, materials laboratories or mixing plants, transportation infrastructure, and construction site conditions. Conducts evaluations of existing conditions, safety inspections, and investigations of incidents. Identifies problems or issues and recommends solutions.

Documentation and Communication
Formulates and presents findings, briefings, project papers, status reports, and correspondence to foster understanding and acceptance of findings and recommendations. Prepares technical documentation for work assignments and reviews documentation of lower graded technicians. Documentation includes construction material test results and reports, technical construction reports, and final inspection/construction reports and other technical reports. Advises on work efforts to resolve operating problems by working collaboratively with a diverse array of individuals and groups. Delivers presentations or briefings on technical documentation.

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

- **Project Management**: Monitors project plans that outline the scope, schedule, and budget of assigned projects. This includes collaboration and communication; leading and participating on teams; and identifying procedural issues prior to adverse impacts to the schedule and budget. Leads and/or participates in coordination meetings with a variety of government and/or non-government stakeholders.
- **Contract Administration**: Serves as the Contracting Officer's Representative (COR)/Grants Officer's Technical Representative (GOTR)/Awarding Official Technical Representative (AOTR) and/or assists the COR/GOTR/AOTR in working with the Contracting Officer/Grants Officer/Awarding Official to implement and administer a variety of assigned contracts, including construction contracts, service or supply contracts, P.L. 93-638 Indian Self Determination and Education Assistance Act as amended contracts/agreements, interagency agreements, and financial assistance agreements. Initiates timely actions and technically monitors the contract/agreement to ensure that they are carried out to completion as outlined in the contract/agreement. Researches the background on problems, identifies and devises courses of action in coordination with Architects and Engineers and the Contracting Officer, Grants Officer, or Awarding Official as appropriate, and prepares recommendations for decision by management. Oversees and tracks official correspondence between the

government and contractor. Reviews and tracks reimbursement for contract work, including progress payments and final payment. Manages the contract close-out process, including data and records retention, in accordance with agency guidelines.

- **Compliance**: Provides administrative technical support in connection with regulatory 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 1-7 1250 points)

Comprehensive practical knowledge of, and extensive experience and skill in applying, a wide range of engineering concepts, practices, regulations, policies, and precedents; analytical and diagnostic techniques; qualitative and quantitative techniques; techniques for developing new or modified work methods, approaches, or procedures; and related emerging practices and methods sufficient to provide comprehensive management advisory and technical engineering services on substantive functions and practices; develop innovative methods, approaches, or procedures; identify, evaluate, and recommend appropriate solutions to resolve complex interrelated problems and issues; and formulate and present findings, briefings, project papers, status reports, and correspondence to foster understanding and acceptance of findings and recommendations.

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 assignments.

Skill in applying technical engineering methods, techniques, procedures, and practices related to the test and evaluation of items, materials, systems, and equipment associated with research and development projects or other similarly complex assignments. Skill in fabricating, adjusting, calibrating, modifying, and improving test systems, test articles, materials, and instrumentation, and skill in advising on the capabilities of laboratory systems and instrumentation.

Knowledge of technical engineering data collection methods. Knowledge of data sources within the Bureau and industry. Skill in recognizing data anomalies, analyzing source of the anomaly, and resolving problems resulting in errors. Skill in identifying and assessing the data needed for technical engineering assignments.

Skill in reading, interpreting, and formulating field notes, engineering drawings, regulations, policies, legal descriptions, topographic maps, aerial photographs, geologic reports, drill hole logs, land classification reports, and other technical resource material to extract data from these sources for technical engineering assignments.

Knowledge of practical mathematical principles and logic relative to algebra, trigonometry, and geometry and the ability to calculate area, quantities, and volumes based upon application of standard mathematical formulas.

Skill in conducting difficult and complex inspections and assessments.

Knowledge of and skill in using automated engineering systems, applications, and instrumentation in order to perform technical engineering assignments.

Skill in effectively conveying information to individuals or groups, taking into account the nature of the information (e.g., technical) and making clear and convincing presentations of recommendations, conclusions, information, and data. Skill in writing in a clear, concise, organized, and convincing manner. Ability to establish collaborative working relationships; to identify, analyze, and advise on problems and problem solutions; and to determine relevancy of information to make logical decisions and develop technical solutions.

Practical knowledge of administrative activities associated with administration of contracting and agreement actions, procedures, and options, and working knowledge of the associated documents and contract and agreement actions sufficient to assist the Contracting Officer/Grants Officer/Awarding Official in performing contract administration functions. Knowledge of and skill in applying Federal Acquisition Regulation (FAR) requirements and Construction Specifications Institute (CSI) guidelines for drafting contract documents. COR, GOTR, or AOTR responsibilities may require specific training and/or certification.

Factor 2. Supervisory Controls (Level 2-4 450 points)

The supervisor outlines overall objectives and available resources and, in consultation with the employee, discusses the projects and timeframes of work assignments and determines the parameters of the employee's responsibilities. The employee determines the most appropriate avenues to pursue and decides the practices and methods to apply, including the approach to take and the depth and intensity needed. The employee interprets regulations on own initiative and applies new methods to solve complex, intricate, sensitive, and/or unprecedented problems and resolves most conflicts as they arise. The employee coordinates projects with a variety of stakeholders and keeps the supervisor informed of progress and potentially controversial matters. The supervisor reviews completed work for soundness of overall approach, effectiveness in producing results, feasibility of recommendations, and adherence to requirements.

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

The employee uses a variety of engineering standards, guidelines, manuals, precedents, and 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, and precedents for application to specific cases or problems. The employee analyzes results and recommends changes to practices and guidelines.

Factor 4. Complexity (Level 4-4 225 points)

Work consists of many different and unrelated processes and methods requiring ingenuity and skill to resolve a broad range of problems. The employee analyzes, selects, and adapts appropriate methods from a wide range of alternatives to assess unusual circumstances. The employee evaluates operations, equipment, and activities and applies qualitative and quantitative analytical techniques to resolve complex, interrelated problems and to develop new or modified work methods, approaches, or procedures. The employee exercises seasoned judgment and skill to interpret considerable, incomplete, or conflicting data and to resolve new or unique problems. 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.

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

This position works as an Engineering Technician with extensive experience working on a wide range of substantive, complex work assignments aligned with 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 methods, procedures, and techniques to resolve complex, interrelated problems. 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 6-3/7C 180 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 moderately unstructured settings. Contacts within the Department/Bureau may be from various levels, such as: headquarters; regions; districts; field offices; or other operating offices. Contacts are to acquire or exchange information or facts needed to complete an assignment and to plan, coordinate, or advise on work efforts or to resolve operating problems by collaborating with individuals and groups who are generally working toward mutual goals and objectives. Regular and recurring contacts also include meeting with officials several levels removed from the employee or from outside the Bureau on an ad hoc basis in which the employee must learn the role and authority of the parties during the course of the meeting. The employee must influence or persuade individuals to gain compliance, such as contractor oversight, or to influence or persuade such as when presenting test results and analysis.

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

FL 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.

FL 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.

FL 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 (Level 9-1 5 pts; 9-2 20 pts; 9-3 50 pts)

FL 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.

FL 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.

FL 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 = 2540 (low) to 2630 (high)
Grade Conversion Point Range = 2355-2750 for GS-11
Final Grade = GS-11

Other Significant Facts
Certification: Certification to serve as a Federal Acquisition Certification (FAC) COR or AOTR may be required as articulated in Department and/or Bureau policies.