

Job/Analysis Form

Position Title: General Engineer	<u>Competency Category (KSA/Job Criteria)</u> Basic Qualifications (Knowledge) Functional (Skills/Abilities) Interpersonal (Abilities)	<u>FOR CATEGORY RATING:</u> BQ Category Range: 95 - 100 WQ Category Range: 85 - 94 Q Category Range: 70 - 84		
Series, Grade: GS-0801-12	<u>Question Type</u>			
Subject Matter Expert:	MC – Multiple Choice LA – Long Answer YN – Yes No	MAMC – Multiple Answer Multiple Choice SA – Short Answer AA – Applicant Assessment		
Human Resources Specialist:				
Major Duties - PD	Competency Category (KSA/Job Criteria)	Question Type	QuickHire Questions and Responses (New or Existing)	SCORE (For Use in HR Office Only)
Engineer with project manager responsibilities in an assigned area within the Office. Oversees the technical planning of complex research, development and demonstrations activities. Evaluates /project needs and prepares procurement requests to support those needs.	Professional knowledge of and skill in applying, a wide range of engineering concepts, principles, standards, and methods to determine and/or execute actions.	MC	GS-11 You must meet the basic qualifications for the GS-11 grade level. You may meet the basic qualifications for the GS-11 with a combination of education and/or experience. Select the choice which best describes your education and/or experience. <ol style="list-style-type: none"> 1. I have a Ph. D or equivalent doctoral degree. 2. I have three (3) years of progressively higher level graduate education leading to a Ph. D degree or equivalent doctoral degree. 3. I have a combination of post high school education and experience that together meet the qualification requirements for this position. 4. I have one (1) full year of specialized experience at the next lower level as defined on the vacancy announcement. 5. I do not meet any of the above statements. 	
		MC	What is your experience in analyzing data and technical problems related to engineering projects? <ol style="list-style-type: none"> 1. Analyze data and provide comments that will 	

		<p>MC</p> <p>MC</p>	<p>be included in program planning guidance for use by others in a program office.</p> <ol style="list-style-type: none"> 2. Analyze data and provide comments that will be included in engineering projects conducted by a team 3. Analyze data and write own conclusion of engineering projects conducted independently 4. None of the above. <p>What is your project/program experience? #14130</p> <ol style="list-style-type: none"> 1. Primarily research and technology 2. Conceptual development phase 3. Full-scale design phase 4. Build/construction phase 5. Test phase 6. Production phase 7. Full-scale operations 8. Retrofit/upgrade efforts 9. None of the above <p>Ability to perform segments of engineering analyses projects or units of special research projects or planning and evaluation studies of continuing and future distribution requirements and production capabilities.</p> <ol style="list-style-type: none"> 1. I have not had education, training or experience in performing this task 2. I have had education or training in performing this task, but have not yet performed it on the job. 3. I have performed this task on the job with close supervision from supervisor or senior employee. 4. I have performed this task as a regular part of the job, independently and usually without review by supervisor or senior employee. 5. I have supervised performance of this task and/or I have trained others in performance and/or am normally consulted by others as an expert for assistance in performing this task. 	
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		<p style="text-align: center;">MC</p>	<ol style="list-style-type: none"> 1. I have not had education, training or experience in performing this task 2. I have had education or training in performing this task, but have not yet performed it on the job. 3. I have performed this task on the job with close supervision from supervisor or senior employee. 4. I have performed this task as a regular part of the job, independently and usually without review by supervisor or senior employee. 5. I have supervised performance of this task and/or I have trained others in performance and/or am normally consulted by others as an expert for assistance in performing this task. <p>Collaborate with others or work as a team member to accomplish work-related activities.</p> <ol style="list-style-type: none"> 1. I have not had education, training or experience in performing this task 2. I have had education or training in performing this task, but have not yet performed it on the job. 3. I have performed this task on the job with close supervision from supervisor or senior employee. 4. I have performed this task as a regular part of the job, independently and usually without review by supervisor or senior employee. 5. I have supervised performance of this task and/or I have trained others in performance and/or am normally consulted by others as an expert for assistance in performing this task 	
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<p>Provides input to the preparation, justification, and support of the budget for assigned programs/projects, and supplies justification as to the importance of efforts and the consequences of not providing the necessary funding. The incumbent reviews the budget and monitors budget expenditures for assigned area</p>	<p>Knowledge of and ability to apply the application of a wide-range of qualitative and quantitative techniques to evaluate complex issues.</p>	<p>Y/N</p> <p>MC</p>	<p>Do you have a combination of education and/or experience applying quantitative methods and techniques for professional engineering analysis?</p> <ol style="list-style-type: none"> 1. Yes 2. No <p>This position is responsible for preparing, justifying, and supporting budgets for a basic research program. Select the budget activities you have performed.</p> <ol style="list-style-type: none"> 1. Prepared budget requests and related supporting documents 2. Presented and defended annual budget justifications before high level officials within and outside the organization 3. Monitored and tracked obligations and expenditures for assigned engineering or scientific programs and projects 4. Responded to adjustments in program budget 5. None of the above. 	
<p>Makes presentations on project objectives, content, and progress to a variety of professional audiences; participates in professional society meetings, and reports reception of objectives to supervisor. At times, represents the Office in intradepartmental and interagency group and makes presentations at management reviews and technical meetings prepares comprehensive technical reports and participates in conferences and demonstrations to present technical reports.</p>	<p>Ability to communicate both orally and in writing.</p>	<p>MC</p> <p>MC</p>	<p>This position is responsible for verbal and written communication to all levels within and outside the organization on complex technical information. Please indicate which of the following types of communication duties you have performed as a regular part of a job by checking all that apply.</p> <ol style="list-style-type: none"> 1. Present high-level briefings to senior officials 2. Present briefings to other federal agencies 3. Present briefing to private sector organizations 4. Negotiate the resolution of complex issues 5. Persuade others to accept recommendations. <p>Please indicate which of the following types of communication duties you have performed as a regular part of a job. (Please check all that apply)</p> <ol style="list-style-type: none"> 1. Served as a spokesperson for an organization 2. Facilitated communications and activities between organizational entities. 	

		<p style="text-align: center;">MC</p>	<ol style="list-style-type: none"> 3. Prepared written reports on program/project status 4. Presented, defended and/or negotiated specific mission goals and needs with senior managements and contract representatives 5. Briefed senior management on organizational issues or similar topics 6. Defended recommendations on controversial issues to senior management or private industry 7. Independently planned, conducted and hosted meetings 8. Served on panels, committees or task forces on technical, programmatic and/or professional issues. 9. Regularly consulted by others on technical programmatic and/or professional issues. 10. Organize and present controversial decisions, conclusions, findings or recommendations to high-level management officials 11. Make impromptu presentations to various groups, sometimes with opposing points of view. 12. Present briefings to higher level management officials 13. None of the above. <p>Gather and evaluate technical information and prepare written reports and documents with recommendations to management for solving issues or problems.</p> <ol style="list-style-type: none"> 1. I have not had education, training or experience in performing this task 2. I have had education or training in performing this task, but have not yet performed it on the job. 3. I have performed this task on the job with close supervision from supervisor or senior employee. 4. I have performed this task as a regular part of the job, independently and usually without 	
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			<p>review by supervisor or senior employee.</p> <p>5. I have supervised performance of this task and/or I have trained others in performance and/or am normally consulted by others as an expert for assistance in performing this task</p>	
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**General Engineer
GS-801-12**

INTRODUCTION

This is a General Engineer position, the incumbent of which is assigned anywhere within Office of Energy Efficiency and Renewable Energy organization.

MAJOR DUTIES

Serves as a general engineer with project manager responsibilities in an assigned area within the Office. Oversees the technical planning of complex research, development and demonstrations activities. Serves as a Departmental contact with outside individuals and organizations for matters pertaining to the assigned programs/project. Evaluates /project needs and prepares procurement requests to support those needs. Evaluates proposals, participates in selection process, and recommends candidate contractors. Monitors contractor performance through regular meetings with contractors and evaluation of deliverables. Recommends action as necessary to modify or terminate programs/project efforts. Advises supervisor and field activities on unusual, difficult or controversial technical matters.

Provides input to the preparation, justification, and support of the budget for assigned programs/projects, and supplies justification as to the importance of efforts and the consequences of not providing the necessary funding. The incumbent reviews the budget and monitors budget expenditures for assigned area. Meets periodically as requested with the supervisor to advise on status of specific programs/project assignments and progress.

The incumbent makes presentations on project objectives, content, and progress to a variety of professional audiences; participates in professional society meetings, and reports reception of objectives to supervisor. At times, represents the Office in intradepartmental and interagency groups for exchange of information on research, development, demonstration, and evaluation of energy efficient technologies, and makes presentations at management reviews and technical meetings prepares comprehensive technical reports and participates in conferences and demonstrations to present technical reports.

Performs other duties as required.

Factor 1 – Knowledge Required by the position

Professional knowledge of, and skill in applying, a wide range of engineering concepts, principles, standards, and methods sufficient to determine and/or execute actions for a wide range of assignments involving combinations of complex features;

Knowledge to formulate, execute, advise on, and explain recommendations or solutions to modify standard practices, processes, and techniques and resolve a wide variety of complex problems;

Knowledge and skill to act as one of the principal contributors on team-based projects or coordinates a team project and provides technical oversight and direction;

Knowledge of and ability to apply the application of a wide-range of qualitative and quantitative techniques to evaluate complex issues.

Knowledge of the Federal budget process;

Ability to communicate both orally and in writing in order to coordinate and monitor activities performed by supporting organizations and contractors, write scopes of work and technical reports and present recommendations and findings

Factor 2 – Supervisory Controls

The incumbent performs under general supervision. The supervisor provides background information and guidance on unusual or important matters. The incumbent independently adapts and applies standard engineering practices, guidelines, and methods in the performance of assigned projects. Completed projects are reviewed for clarity and compliance with policies and procedures. The

incumbent plans and carries out the assignment independently as to approach, methods and procedures, and works with senior employees to resolve problem areas. Progress is discussed with the supervisor periodically. Work is reviewed during critical phases of the project. Work is reviewed for technical adequacy, soundness of decisions or recommendations and consistency with objectives as well as compatibility with the total project and related projects.

Factor 3 – Guidelines

Guidelines include manuals, engineering regulations, established procedures, policy statements, and the terms and conditions of contracts. The employee must use experienced judgment and initiative in applying and adapting engineering principles and practices where significant departures from established practices and precedents are required, resulting from such factors as unusual conditions.

Factor 4 – Complexity

Assignments involve concepts, principles, and practices of several engineering disciplines with none predominant. The employee must exercise creativity and experienced judgment in extending traditional techniques or developing new ones in order to solve complex engineering problems. In some cases, the assignments deal with the inapplicability of established criteria and technical precedents to project objectives thus requiring sound judgment to bring the project to solution and meet major objectives without compromising engineering principles. The work also requires recognition of the relationship of problems and practices of related engineering fields either to solve the engineering problem or refer it to the appropriate source.

Factor 5 – Scope and Effect

The work of the position involves investigating, evaluating, advising on, and resolving unusual problems, issues, and conditions; adapting precedents to unusual conditions and projects; addressing project and program effectiveness and providing consultant or advisory services on problems, conditions, programs, and functions to a broad customer base. The work results affect the efficiency, feasibility, accuracy, adequacy, and safety of a wide range of DOE activities and the planning, completion, and direction of engineering projects.

Factors 6 and 7 – Personal Contacts and purpose of Contacts

Contacts are with officials, managers, and other engineers within the organization and other offices of the Department of Energy, including manufacturers, suppliers, and contractors.

Contacts are to exchange information, coordinate on projects, obtain information, and resolve problems of activities. Some contacts require the employee to influence or persuade other engineers to adopt technical points where there are disagreements, such as in the selection of one approach from a number of alternatives.

Factor 8 – Physical Demands

Work is primarily sedentary and requires slight physical effort to lift and carry items.

Factor 9 – Work Environment

The work is performed in a typical office setting. There are no undue risks imposed by the physical surroundings.

TOTAL POINTS: 2890

GRADE CONVERSION TABLE:

Point Range: 2755-3150

Professional Work in the Engineering and Architecture Group, 0800, November 2008