

Job Description for: Engineer III

Jobcode Selection Dt Review Date Job Suffix O/T Class Job Grade

20004051 06/02/2007 03/14/2004 G 2 012

9000 Basic Function

GIVE BRIEF SUMMARY OF THE PRIMARY PURPOSE(S) OF THE JOB.

Performs engineering studies, design, development and control of assigned projects within any of the recognized fields of engineering.

9001 Scope

INDICATE AS APPROPRIATE SIZE, GEOGRAPHIC AREA, PLANT EQUIPMENT THROUGHPUT, ORGANIZATIONS SERVED, FINANCIAL RESPONSIBILITY, AUTHORITY, AND SUPERVISION RECEIVED, WHICH RELATE TO THE JOB.

Scope includes engineering aspects of studying alternates or designing new facilities and installations and modifying existing facilities. Design projects assigned are generally appropriations up to \$100,000 or an equivalent of 1500 man-hours, incumbents are assigned as member of engineering group on larger projects. Incumbent must have thorough training, knowledge and ability in his engineering field and working knowledge of related engineering fields and of applicable codes and standards. This job applies to the fields of civil, chemical, electrical and mechanical engineering. Scope varies with each application. Supervision is general. Incumbent may receive work direction from an Engineer I or Engineer II on projects which require engineering team effort. The desired experience includes field or plant familiarity for direct support to plant operation in his related engineering fields in the oil & gas business. Incumbents may be rotated between various operation, maintenance, and engineering supporting staff in the plants.

9002 Principal Contacts

INCLUDE PURPOSE, FREQUENCY AND SIGNIFICANCE TO SAUDI ARAMCO.

Frequent contacts with operating Division and Unit Heads to ascertain problems, define scope of projects, develop solutions, and evaluate alternatives. Occasional contacts with Managers and infrequent contact with Executive Management responding to inquiries or presenting conclusions of studies. Frequent working contacts with suppliers of data and information such as estimating engineers, construction engineers, accountants, programmers, etc.

9003 Principal Duties

DESCRIBE CONCISELY EACH PRINCIPAL WORK ACTIVITY LISTED IN A LOGICAL ORDER; NORMALLY, THE ORDER WILL BE TO LIST THE MOST IMPORTANT DUTY FIRST. INCLUDE IMPORTANT DECISIONS AND RECOMMENDATIONS MADE, IF APPLICABLE. FOR SINGLE APPLICATION JOBS INDICATE APPROXIMATE PERCENT OF TIME SPENT ACCOUNTING FOR

AT LEAST 75% OF TOTAL TIME. START SENTENCES WITH ACTION VERBS. PLEASE INDICATE THE PERCENTAGE OF TIME AGAINST EACH PRINCIPAL DUTY.

A. Develop continuous improvements solutions and formulates the design basis by collecting, analyzing information and data relative to operating requirements, process, economic considerations and such other pertinent factors as may be involved as a preliminary step in support of

proposals for new construction, modifications or maintenance to equipment

B. Develop Cost estimates for the cost of engineering, labor, equipment and materials based on analysis of preliminary design data; draws up the expenditure request and justification; and assembles the supporting detail; Reviews the work of others so engaged and recommends such changes as may be required.

C. Lead the development of engineering specification Rev 0 and develops material and equipment specifications and resolves related engineering problems in rendering the design by applying accepted engineering principles, codes and standards; making the necessary diagrams and calculations; and considering the economic factors involved.

D. Assists other engineers in the solution of problems outside their specialty (application).

E. Outlines the supporting service requirements such as drafting, surveying, materials take-off, requisitioning and clerical services; checks and coordinates the progress of such work; and reviews it for accuracy upon completion.

F. Reviews the work performed elsewhere than in SAO for conformance with SAO conditions and to assure its appropriate relationship to existing installations; and if required, redesigns and recommends necessary modifications.

G. Studies and recommends appropriate sites and locations for proposed installations and facilities.

H. Acts as the project design engineer on assigned projects. Follows and inspects the construction progress of assigned projects assuring conformance with design specifications, codes and standards; Recommends or confirms design changes, material and equipment substitutes; and assures that costs do not exceed appropriated funds by anticipating overruns and justifying supplementary appropriation requests.

I. Performs a variety of related work such as initiating reports, correspondence and cables relative to assigned projects, assembling performance data and conducting studies relative to the development, procurement or adaptation of equipment; interpreting the meaning and application of codes and standards, reviewing operating procedures and safety instructions; acting as technical consultant on operating problems.

Following are specific applications of this job:

Civil Engineer - Normally designs or studies structural modifications to facilities such as industrial shop buildings, warehouses, residences, marine piers, oil handling, processing, storage and pipeline facilities, facilities, sewer systems, roads and streets. Occasionally called upon to design new facilities of the types mentioned.

Chemical Engineer - Normally handles process studies or design modifications in utilities, oil manufacturing or oil handling facilities , Occasionally called upon to design or evaluate new process installations.

Electrical Engineer - Formally designs or studies electrical modifications to oil processing and oil handling facilities, residences and utilities. Occasionally called upon to design electrical aspects of new facilities of the type mentioned.

Mechanical Engineer - Normally designs or studies mechanical modifications to oil processing, oil handling and utilities facilities.

Occasionally called upon to design mechanical aspects of new facilities of the type mentioned.

Survey Engineering - Includes engineering analysis and the development

of recommendations and alternatives in the solution of complex problems related to the surveys of company and government properties and facilities. This includes the recognition of problems, through analysis of present situation and objectives, development of comprehensive program and implementation to produce the desired end product. Typical projects would involve the establishment of high precision horizontal control in remote desert regions for future oil and gas development, evaluation and recommendation of state of the art photogrammetric equipment for digital mapping systems.

9004 Minimum Requirements

A- EDUCATION - DEGREES AND/OR LICENSES REQUIRED; B- PREREQUISTE WORK EXPERIENCE IN ADDITION TO EDUCATION; C- OTHER.

A. EDUCATION: B.S. in Engineering.

B. EXPERIENCE: Five years of professional experience, preferably in the oil or similar process industry.

C. LANGUAGE REQUIREMENTS: A thorough knowledge of English is required to perform work as described and make clear and concise verbal and written reports and keep up with technical advancements. Arabic not required, but desirable for American incumbents in this position.

D. OTHER: Must have a thorough knowledge of engineering practices and economic principles, calculation methods, design details, US and Aramco Codes, Standards and Specifications.