Quality Control Engineer

Develops and implements testing and inspection procedures. Tests raw material, chemicals and/or finished product to quality controls to ensure compliance with quality standards and applicable government regulations. Audits testing results to determine if product specifications are met. Advises operating units on quality control standards for raw materials, chemicals, packaging materials and finished products. Recommends corrective action where necessary and develops plant quality control manuals. Work performed includes the following: Contract Reviews, Inspection/Audit Practices, Material Review Board, Customer Liaison, Support to Suppliers, Quality Program, Engineering Change Board and Process Focus Team.

| | Level 1 | Level 2 | Level 3 | Level 4 | Level 5 | Level 6 |
|---------------------|--|---|--|---|--|---|
| | Quality Control Engineer I | Quality Control Engineer II | Quality Control Engineer III | Quality Control Engineer IV | Associate Principal Quality Engineer | Principal Quality Control Engineer |
| Knowledge | Limited use and/or application of technical principles, theories and concepts. | Frequent use and application of technical standards, principles, theories, concepts and techniques. | Complete understanding and wide application of technical principle, theories and concepts in the field. General knowledge of other related disciplines. Administers and implements quality programs for assigned group of projects to insure maintenance of consistent quality standards for Product Line items. Develops systems and procedures to meet particular project requirements and develop quality data through standard techniques. | Applies extensive technical expertise and has full knowledge of other related disciplines. Develops quality assurance systems and procedures to meet the requirements of assigned projects. Reviews quality estimates and prepares estimates for proposals. | Applies advanced technical principles, theories and concepts. Contributes to the development of new principles and concepts. Develops quality assurance systems and procedures to meet the requirements of assigned projects. Review quality estimates and prepare estimates for proposals. | Exhibits an exceptional degree of ingenuity, creativity and resourcefulness. Applies and/or develops highly advanced technologies, scientific principles, theories and concepts. Viewed as expert within the field. Develops quality assurance systems and procedures to meet the requirements of assigned projects. Reviews quality estimates and prepares estimates for proposals. Oversee the quality assurance program for assigned projects to ensure maintenance of quality standards. |
| Problem Solving | Develops solutions to routine technical problems of limited scope. | Provides solutions to a variety of technical problems of moderate scope and complexity. | Provides technical solutions to a wide range of difficult problems. Solutions are imaginative, thorough, practicable and consistent with organization objectives. | Develops technical solutions to complex problems which require the regular use of ingenuity and creativity. | Works on unusually complex technical problems and provides solutions which are highly innovative and ingenious. | Develops information which extends knowledge in a given field. Information may form the basis of newly developed concepts, theories and products. |
| Discretion/Latitude | Work is closely supervised. Follows specific detailed instructions. | Works under general supervision. Follows established procedures. Work is reviewed for soundness of technical judgment, overall adequacy and accuracy. | Works under only general direction. Independently determines and develops approach to solutions. Work is reviewed upon completion for adequacy in meeting objectives. | Work is performed without appreciable direction. Exercises considerable latitude in determining technical objectives of assignment. Completed work is reviewed from a relatively long-term perspective for desired results. | Works under consultative direction toward predetermined long-range goals and objectives. Assignments are often self-initiated. Determines and pursues courses of action necessary to obtain desired results. Work checked through consultation and agreement with others rather than by formal review of superior. | Often acts independently to uncover and resolve issues associated with the development and implementation of operational programs. Plans R&D programs and recommends technological application programs to accomplish long-range objectives. Work is checked only to the effectiveness of results obtained, typically requiring a long-term perspective. Virtually self-supervisory. |

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|--|---|--|---|--|---|--|
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| Impact | Contributes to the completion of routine technical tasks. Failure to achieve results can normally be overcome without serious effect on schedules and programs. | Contributes to the completion of milestones associated with specific projects. Failure to achieve results or erroneous decisions or recommendations may cause delays in program schedules and may result in the allocation of additional resources. | Contributes to the completion of specific programs and projects. Failure to obtain results or erroneous decisions or recommendations would typically result in serious program delays and considerable expenditure of resources. | Guides the successful completion of major programs and may function in a project leadership role. Erroneous decisions or recommendations would typically result in failure to achieve major organizational objectives. | Develops advanced technological ideas and guides their development into a final product. Erroneous decisions or recommendations would typically result in failure to achieve critical organizational objectives and affect the image of the organization's technological capability. | Designs research and develops highly advanced new applications resulting in new product/business opportunities for the company. Erroneous decisions or recommendations would have a long-term negative effect on organization's reputation and business posture. |
| Liaison | Contacts are primarily with immediate supervisor, project leaders and other professionals in the section or group. | Primarily internal company contacts. Infrequent inter-organizational and outside customer contacts on routine matters. | Frequent inter-organizational and outside customer contacts. Represents the organization in providing solutions to difficult technical issues associated with specific projects. Internal: Direct dealings with reps from other departments. External: Direct dealings with customer and supplier representatives on quality matters. | Represents the organization as the prime technical contact on contracts and projects. Interacts with senior external personnel on significant technical matters often requiring coordination between organizations. Continual internal contacts with various groups and departments on QC matters. Continual customer contact and subcontractor, supplier and field contact on quality matters. | Serves as organization spokesperson on advanced projects and/or programs. Acts as advisor to management and customers on advanced technical research studies and applications. Continual internal contacts with various groups and departments on QC matters. Continual customer contact and subcontractor, supplier and field contact on quality matters. | Serves as consultant to top management in long-range company planning concerning new or projected areas of technological research and advancements. Prime spokesperson on company's technical capabilities and future directions. Often instrumental in attracting and obtaining major new company business. Continual internal contacts with various groups and departments on QC matters. Continual customer contact and subcontractor, supplier and field contact on quality matters. |
| Work Products (Examples may include but are not limited to) | Quality System Databases & Software Applications, i.e., TIPQA and FRACAS. Microsoft Office Applications. Inspection & Measurement Equipment i.e. Microscope. | Quality System Databases & Software Applications, i.e., TIPQA and FRACAS. Microsoft Office Applications. Inspection & Measurement Equipment i.e. Microscope. | Quality System Databases & Software Applications, i.e., TIPQA and FRACAS. Microsoft Office Applications. Inspection & Measurement Equipment i.e. Microscope. Thorough knowledge of test and statistical control methods. | Quality System Databases & Software Applications, i.e,. TIPQA and FRACAS. Microsoft Office Applications. Inspection & Measurement Equipment, i.e., Microscope. Thorough knowledge of inspector Operator Self Inspection, test, and statistical control methods. | Quality System Databases & Software Applications, i.e., TIPQA and FRACAS. Microsoft Office Applications. Inspection & Measurement Equipment, i.e., Microscope. Thorough knowledge of inspector Operator Self Inspection, test, and statistical control methods. | Quality System Databases & Software Applications, i.e., TIPQA and FRACAS. Microsoft Office Applications. Inspection & Measurement Equipment, i.e., Microscope. Knowledge expert of inspector Operator Self Inspection, test, and statistical control methods. |

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|-------------------------------------|--|---|--|--|--|---|
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| Minimum Education and Experience | 0 - 1 year with BS; preferably in Electrical Engineering. May consider Mechanical Engineering. | 2 - 4 years with BS; preferably in Electrical Engineering. May consider Mechanical Engineering. 0 - 2 years with MS; preferably Electrical Engineering. May consider Mechanical Engineering. | 5 - 8 years with BS; preferably in Electrical Engineering. May consider Mechanical Engineering. 3 - 6 years with MS; preferably in Electrical Engineering. May consider Mechanical Engineering. ASQC Quality Engineer Certification preferred. | 7 - 11 years with MS; preferably in Electrical Engineering. May | 14 - 19 years with BS; preferably in Electrical Engineering. May consider Mechanical Engineering. 12 - 17 years with MS; preferably in Electrical Engineering. May consider Mechanical Engineering. | 20+ years with BS; preferably in Electrical Engineering. May consider Mechanical Engineering. 18+ years with MS; preferably in Electrical Engineering. May consider Mechanical Engineering. |