The patent document carries the title "IEC Quality Assessment System for Electronic Components (IECQ): Rules of Procedure – Part 3 Approval Procedures." This is a text that establishes the rules and procedures for assessing and approving electronic components and the organizations dealing with them as part of the IECQ system, ensuring better quality of these components in all places.

Introduction and Overview

The paper explores the various types of approvals provided within the scope of IECQ. The approvals for the IECQ system are suited for the manufacturers, distributors, testing laboratories, and specialized contractors who initially have to go through organizational approval before any product or process specific approval is sought in the system. The further approvals also ensure international quality compliance as specified by ISO 9001 and ISO/IEC Guide 25.

Types of Approvals

1. Organisational Consent: Which will be required by any organization wishing to obtain further accreditation services. It includes the entire system of a company, like quality management and compliance with international standards. It applies to the manufacturers, distributors and labs which need to find their alignment with IECQ rules before the direct testing of components.
2. Qualification Approval: This is a type that targets electronic components and is obtained upon proving that components meet the exact specification developed under the IECQ. This is applied by manufacturers that have already achieved organizational approval.
3. Capability Approval: This is a form of approval that checks on the ability of a manufacturer to perform consistently in the quality of components. This approach also includes assessments of their design and manufacturing. Manufacturers are required to keep records of all actions taken and all results achieved during production.

4. Process and Technology Approvals: These approvals apply to a process or a new technology in the manufacture of a component. They promote the application of state-of-the-art quality management systems, such as TQM, and call for continuous control of processes through the application of SPC techniques.

Procedure Details

Procedures on approvals: Every type of approval has established its procedures. These include the eligibility criteria, detailed documentation requirements, and audits by a National Supervising Inspectorate (NSI). The NSI analyses whether all the quality standards are met or not.

Appraisals and audits: Every approved organisation needs to constantly demonstrate that it meets the quality control standards. There are precise guidelines for self-audits and NSI audits, depending on the type of approval.

Subcontracting and Extended Approvals: An organization may subcontract parts of its manufacturing or use remote facilities under certain conditions which shall ensure compliance with established standards. Approvals given to other factories may be extended under satisfactory conditions.

On Standards and Compliance

The document gives reference to standards such as ISO 9001 and ISO 9002, all reinforcing that the quality management system being established will be robust. Then it turns its attention to the maintenance of quality records, checking customer-supplied products, and traceability of all components through production history.

Conclusion

It assures that the electronic components offered are of global standards concerning quality, reliability, and safety. Companies must always be on the lookout to improve quality and change requirements to remain compliant.