



QUALITY POLICY MANUAL

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SOLIDSTATE CONTROLS, INC.

QUALITY POLICY MANUAL

DOCUMENT NO. 01-090000

Reviewed and Approved:

(Signed original on file)

Wm. G. Hampton, Director Quality Assurance

(Signed original on file)

Peter Benson, President



875 DEARBORN DRIVE, COLUMBUS, OHIO 43085

INTRODUCTION

QUALITY POLICY STATEMENT: The purpose of our business is to provide continuity of electrical power to keep businesses in business. We do this by helping clients solve their power problems and by creating the most economical long-term results.

To accomplish this purpose, it is Solidstate Controls' (SCI) endeavor to focus on client satisfaction both internal and external and satisfy client expectations every time; every employee and supplier working for continuous improvement in every way, in manufacturing, in engineering, in finance, in sales and other administrative areas. We must prevent losses and errors by using problem solving tools and data, taking action on the information that is developed to continually improve performance. Prevention is the key to ongoing success, where teams develop solutions for both product and process that are the most economical in the long term and eliminate waste.

Our goal is full implementation of World Class Quality Management concepts. This concept recognizes the fact that quality is inherent in all phases of the company operation and that control and coordination of these many facets is a necessity for world class success. This quality program policy provides the structure in support of these objectives. Involvement of all the people in the company is a key ingredient for the success of this program.

This quality program has been developed and implemented to meet the requirements of ISO 9001 - Quality System Model for Design, Development, Production and Service, 10CFR50 Appendix B - Quality Assurance Criteria for Nuclear Power Plants, ANSI 45.2 Quality Program Requirements for Nuclear Facilities and 10CFR21 Reporting of Defects and Noncompliance for Nuclear Power Plants. SCI's quality program is dynamic in order to satisfy special client or product requirements.

References

International / National

ISO 9001:1994	Quality Systems - Model for Quality Assurance in Design and Development, Production, Installation and Servicing
ISO 10011-1:1993	Guidelines for Auditing Quality Systems - Auditing
ISO 10011-2:1993	Guidelines for Auditing Quality Systems - Qualification Criteria for Quality Systems Auditors
ISO 10011-3:1993	Guidelines for Auditing Quality Systems -Management of Audit Program
ISO 8402:1994	Quality Management and Quality Assurance Vocabulary
10 CFR 50 - Appendix B	Quality Assurance Criteria for Nuclear Power Plants
ANSI 45.2	Quality Program Requirements for Nuclear Facilities
10 CFR 21	Reporting of Defects and Noncompliance for Nuclear Power Plants

QUALITY ASSURANCE REQUIREMENTS MATRIX

POLICY SECTION	TITLE	10CFR50 APPDX B	ANSI/ ASME N45.2	IAEA 50-C-QA	RCC-E A5000	ISO 9001
	Introduction		1	1.1	5201	1.0
1.	Organization	I	3	3	5203	4.1
2.	QA Program	II	2	2	5202	4.2
3.	Contract Review	III	4	5	5205	4.3
4.	Design Control	III	4	6	5205	4.4
5.	Document and Data Control	IV, V, VI 5, 6, 7	-	-5204		4.5
6.	Purchasing	VII	8	6	5206	4.6
7.	Control of Client Supplied	-	-	-	-	4.7
8.	Product Identification and Traceability	VIII	9	7	5207	4.8
9.	Process Control	IX	10	8	5208	4.9
10.	Inspection & Testing	X, XII	11	9	5209	4.10
11.	Control of Inspection, Measuring and Test Equipment	XII	13	9	5209	4.11
12.	Inspection, Test, and Operating Status	XIV	15	9	5209	4.12
13.	Nonconforming Materials, Parts and Components	XV	16	10	5210	4.13
14.	Corrective & Preventive Action	XVI	17	11	5211	4.14
15.	Handling, Storage and Shipping	XIII	14	7	5207	4.15
16.	Control of Quality Records	XVII	18	12	5212	4.16
17.	Internal Quality Audits	XVIII	19	13	5213	4.17
18.	Training	II	2	2	5202	4.18
19.	Servicing	-	-	-	-	4.19
20.	Statistical Techniques	-	-	-	-	4.20

Revision History

Revision A – Complete rewrite to align with ISO 9001 criteria and accommodate Nuclear requirements. Added appendices A, B, C and D; assigned a new document number to align with new number and revision scheme. Added policy statement to section 1.3; clarified sections 1.6 and 1.7 to better reflect the 9001 Standard requirements; and changed the “policy” in scope paragraph of all sections to “section.”

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1.0 MANAGEMENT RESPONSIBILITY

1.1 Scope:

This section defines company objectives for quality and its commitment to quality.

1.2 Reference:

ISO 9001:1994 (Section 4.1)
ANSI/ASME N45.2 (Section 3)
10CFR50, Appendix B, Criterion I

1.3 Quality Policy

The quality policy is stated in the company's Quality Policy Statement which has been developed and agreed by the Senior Management of the company and in this Quality Policy Manual which indicates the approach that Solidstate Controls, Inc. takes in addressing the requirements of the International Standard ISO 9001:1994.

QUALITY POLICY STATEMENT: The purpose of our business is to provide continuity of electrical power to keep businesses in business. We do this by helping clients solve their power problems and by creating the most economical long-term results.

This Quality Policy Manual also meets the provisions of Federal Regulation 10CFR50 Appendix B and American National Standards Institute publication N45.2-1977 where applicable to SCI product line. This program permits and directs compliance with requirements of other ANSI, IEEE and IEC and other recognized and appropriate codes, standards, requirements and practices where directed to do so by client specifications and requirements.

Solidstate Controls, Inc. ensures that this policy is understood, implemented and maintained at all levels throughout the organization. Quality objectives and commitments pertaining to key elements of quality are documented.

1.4 Organization

Responsibility and Authority

The interrelation of all personnel who manage, perform and verify work affecting quality are defined in the organization chart found in Appendix "B". The quality job descriptions, including quality responsibilities and authority, of these individuals are listed in Appendix "A".

1.5 Resources

Solidstate Controls, Inc. identifies in-house resource requirements and provides adequate resources including the assignment of trained personnel for management, performance of work and verification activities including internal quality audits.

Verification activities include inspection, test and monitoring of the design, production and servicing processes. Design reviews and audits of the quality systems and processes are carried out by personnel independent of those having direct responsibility for the work being performed.

1.6 Management Representative

A management representative appointed by the President and Executive Staff has the authority and responsibility for ensuring that the Quality System is established, implemented and maintained in accordance with the ANSI /ISO 9001 Standard. Further, the management representative is responsible for preparing reports for management review of the performance and compliance status of the quality system.

This includes records of nonconformances identified, client complaints received, internal quality audits performed and reported and corrective and preventive actions taken to ensure the system is functioning and continuous improvement is possible.

1.7 Management Review

A cross functional Executive Staff group and President reviews ongoing development and implementation of the quality system. They ensure that the system continues to be effective, efficient and suitable in satisfying the requirements the of ISO 9001 Standard and Solidstate Controls, Inc.'s quality policy and the quality objectives.

The Management Representative reports on the status of the quality system at two comprehensive management reviews of the quality system each year. Quality objectives and plans involving the implementation, maintenance and continuous improvement of the quality system are initiated, reviewed and approved.

Internal quality system audits are scheduled and performed. Minutes of Management Review meetings are retained as quality records.

1.8 Document(s) implementing this Policy

Quality Statement

Management Responsibility Procedure No. 01-090010

2.0 QUALITY SYSTEM

2.1 Scope

This section defines the Quality Management System operated by Solidstate Controls, Inc. to ensure that our products and services conform to specified requirements.

2.2 Reference

ISO 9001: 1994 (4.2)
ANSI/ASME N45.2 (Section 2)
10CFR50, Appendix B, Criterion II

2.3 Policy

Quality Policy Manual

The Quality Policy Manual outlines our quality management system and is based upon the international standard ISO/DIS 10013 - Guidelines for Developing Quality Policy Manuals. The Quality Policy Manual also contains our Quality Policy, Organization Chart and the quality responsibility of persons on that chart. The Quality Policy Manual references and is supported by the Systems Management Procedures and Department Procedures that can be found separately.

Systems Management Procedures

Solidstate Controls, Inc. quality systems have been set up based on international standard ISO 9001 Quality Systems - Model for Quality Assurance in Design, Development, Production, Installation, and Servicing. The organization and outline of the quality system is contained in Appendix "C" of this Quality Policy Manual. The Quality Policy Manual is supported by the Systems Management Procedures and Department Procedures, which contain the procedures for the processes which affect the quality of our products and services. Each procedure lists the quality records that ensures effective implementation of the applicable quality systems and identifies retention times for said records.

The Quality System embraces product engineering, R&D, sales, operations, testing, quality assurance and Logistics in addition to our Quality Control system.

Procedures for these functions can be found in the Systems Management Procedures and Department Procedures and are presented in the form of documented procedures, work instructions, process charts, and/or training

requirements. This Quality System provides consistency to our practices; and it is the foundation that facilitates our continuous improvement.

Quality Planning

Solidstate Controls, Inc. prepares quality plans to meet specified requirements for our products, projects or contracts. Quality planning typically includes:

- identification and acquisition of any resources (i.e. controls, processes, equipment & skills) needed to achieve the required quality,
- ensuring compatibility regarding product design, production, installation and servicing,
- updating existing quality control (inspection or testing techniques) and/or quality assurance (quality systems or processes) if needed,
- clarification of any specific (new or non standard) acceptance criteria,
- identification and preparation of any (new or non-standard) quality records.

Note: The Quality System structure and contents of Systems Management Procedures and Department Procedures are outlined in Appendix "C" of this document.

2.4 Responsibilities

The Management Representative bears the prime responsibility for establishing, implementing, and maintaining an effective and economic quality management system.

All Department Managers are responsible for implementing and maintaining the Systems Management Procedures and Department Procedures required for implementing the quality management system in their areas.

2.5 Document(s) implementing this Policy

Systems Management Procedure No. 01-090020
Systems Management Procedures and Department Procedures

3.0 CONTRACT REVIEW

3.1 Scope

This section defines the methodology by which clients' requirements are established and reviewed.

3.2 Reference

ISO 9001: 1994, Section 4.3
ANSI/ASME N45.2 (Section 4)
10CFR50, Appendix B, Criterion III

3.3 Policy

Before acceptance of a sales order or a tender, the requirements requested by the client are reviewed to ensure they are clearly defined and documented. At this time, any differences with the client are resolved and the commitment to a sales order is given if all aspects are met. Amendments to existing contracts are communicated to the appropriate departments through revisions to the existing sales order.

Records of the orders and, if applicable, reviews with clients are kept on file.

3.4 Responsibilities

The Contract Administrator, Application Engineer and designates have the prime responsibility to ensure that the client's requirements are clearly defined and documented.

Client Service Administrators (CSA's) have the responsibility to keep a record of all sales orders and transactions for hardware and Client Support has responsibility for service contracts.

3.5 Document(s) Implementing this Policy

Contract review Procedure No. 01-090030

4.0 DESIGN CONTROL

4.1 Scope

This section defines the methodologies and tools for control of design and development to satisfy client requirements, and to achieve company objectives.

4.2 Reference

ISO 9001: 1994, Section 4.4
ANSI/ASME N45.2 (Section 4)
10CFR50, Appendix B, Criterion III

4.3 Policy

General

Documented procedures have been established defining the product design process to ensure that it meets internal, client, and regulatory requirements.

Design and Development Planning

Plans are drawn up that identify the responsibility for each design and development activity. The plans describe and/or reference these activities and are updated as the design evolves. Design and development activities are planned and assigned to qualified personnel equipped with adequate resources.

Organizational Interfaces

Organizational and technical interfaces between different groups are identified and the necessary information documented, transmitted and regularly reviewed.

Design Input

Design input requirements relating to the product, including applicable statutory and regulatory requirements, are identified and documented and their selection reviewed for adequacy. Incomplete, ambiguous, or conflicting requirements are resolved with those responsible for imposing these requirements. The results of any contract reviews are taken into consideration.

Design Output

Design output is documented and expressed in terms of requirements that are verified and validated against design input requirements. In addition to meeting the input requirements, the output document makes reference to acceptance criteria and identifies characteristics that are crucial to safe and proper functioning of the product.

Design Review

Reviews at each stage of design are planned and conducted and where appropriate, cross-functional representatives are present. Records of reviews are maintained.

Design Verification

Solidstate Controls, Inc. plans, establishes, documents and assigns to competent personnel functions for verifying the design. Design verification establishes that design output meets the design input requirements by means of design control measures. To ensure continuity, Solidstate Controls, Inc. uses the same subcontractors, tooling, and processes during verification that will be used in production wherever possible. Performance testing activities are tracked to monitor timely completion and conformance to requirements.

Design Validation

Solidstate Controls, Inc. ensures its' products conform to clients requirements by performing design validation.

Design Changes

Solidstate Controls, Inc. established and maintains procedures for the identification, documentation and appropriate review and approval of all changes and modifications. Changes are submitted for written client approval when appropriate.

Design Analysis:

Measures shall be provided for design analysis in such areas as compatibility of materials, thermal qualifications, accessibility for in-service inspection, maintenance and repair. Acceptance criteria for inspections and tests.

Measures shall be taken to provide for the selection and review for suitability of application of materials, parts and equipment that are essential for the proper functioning of the system or component.

Adequacy of Design:

Adequacy of design shall be shown by:

Previously proven in Identical usage.

Performance testing. Testing shall demonstrate adequacy of performance under the most adverse design conditions. If testing indicates that modifications to the item are necessary to obtain acceptable performance, the item shall be modified and retested as necessary to assure satisfactory performance.

4.4 Responsibilities

R&D and Product Engineering have the prime responsibility for product planning, design, verification, and validation. Product Engineering is also responsible for change control for specific client requests and regulatory requirements.

The Quality Assurance function ensures that both internal and external design and development activities are audited in accordance with company procedures.

4.5 Document(s) implementing this Policy

Design Control Procedure No. 01-090040

5.0 **DOCUMENT and DATA CONTROL**

5.1 Scope

This section defines the way in which quality system documentation and related documents are controlled.

5.2 Reference

ISO 9001: 1994, Section 4.5
ANSI/ASME N45.2 (Sections 5,6,7)
10CFR50, Appendix B, Criterion IV, V, VI

5.3 Policy

Solidstate Controls, Inc. has established and maintains procedures to control all documents and data that relate to the requirements of ISO 9001 and applicable external standards. These documents are reviewed and approved for adequacy by authorized personnel prior to issue. This control ensures that:

- a) the pertinent issues of appropriate documents, which include documents referenced by client drawings or specifications, are available at all locations where operations essential to the effective functioning of the quality system are performed.
- b) obsolete documents are promptly removed from all points of issue or use.
- c) obsolete documents, where noted, may be retained for legal/knowledge purposes and if so are suitably identified.

5.4 Document and Data Changes

Changes to documents are reviewed and approved by the same functions/organizations that performed the original review and approval unless specifically designated otherwise. Where practicable, the nature of the changes is identified in the document or the appropriate attachments.

A master list or equivalent document control procedure has been established to identify the current revision of documents in order to preclude the use of non-applicable documents.

5.5 Responsibilities

The Management Representative has responsibility to review, revise and control this Quality Policy Manual. The President and Director of Quality Assurance are responsible for approving the original and changes to this Quality Policy Manual.

Systems Management Procedures are prepared, reviewed and revised by appropriate managers, approved by the Management Representative and controlled by the Document Control function.

Department Procedures are prepared by department managers or designates, approved by the Management Representative and department management and controlled by the Document Control function.

The R&D and/or product engineering departments are responsible for drawings, specifications and other documents. Change of these items is through the ECO process defined at the procedure level.

5.6 Document(s) implementing this Policy

Document and Data Control Procedure No. 01-090050

6.0 **PURCHASING**

6.1 Scope

This section defines the controls on the purchase of materials and services used in the manufacture of Solidstate Controls, Inc.'s products.

6.2 Reference

ISO 9001: 1994, Section 4.6
ANSI/ASME N45.2 (Section 8)
10CFR50, Appendix B, Criterion VII

6.3 Policy

Evaluation of Sub-Contractors

Selection of all sub-contractors is based on their ability to meet product and service requirements at a total cost that provides the best value. Acceptable criteria may be based on past performance, quality, price, location and timeliness of delivery. A list of approved sub-contractors/vendors is maintained for each product in the product specification. Where our client has an approved subcontractor list, Solidstate Controls, Inc. purchases the relevant materials from subcontractors on that list.

PROGRAM REQUIREMENTS

The program shall include provisions, as required, for:

- 1) Source evaluation and selection;
- 2) Objective evidence of quality furnished by the supplier or contractor;
- 3) Source inspection, audit, or surveillance; and
- 4) Examination of items or services upon delivery.

The selection and evaluation of suppliers is based on one or more of the following criteria:

1. On site survey
2. Past history of reliability
3. Client approved or designated supplier
4. Product or service being supplied (importance, complexity and quantity).
5. Engineering Evaluation - The capacity and competency of the suppliers Product Design and quality program will be evaluated by SCI Quality Assurance, and Engineering.

6. Source Surveying of parts purchased.

A suppliers survey is made of new suppliers and established suppliers as deemed necessary by purchasing and quality assurance.

Measures are established to verify suppliers performance at intervals consistent with the importance, complexity and quality of the item or service.

Purchasing Data

Purchase orders are clear and concise as to type, class, style, and/or part number and reference acceptable criteria or other information, where applicable. Raw materials, components, and supplies used in the manufacture of our products must meet all requirements, stated, or referenced, on the Purchase Order.

Content of Procurement Documents - Include the following provisions as applicable for the item being purchased:

- a) scope of work
- b) technical requirements-including reference to specifications, codes, standards, regulations, test, inspection and acceptance requirements
- d) right to access the suppliers facilities for the purpose of inspection and or audits of materials and quality system used to control materials included in the purchase order, at the supplier's plant, if required by contract.
- e) documentation requirements as applicable
- f) nonconformance reporting as applicable, and
- g) spare/replacement part identification as applicable.
- h) Subcontracts and associated reference data are available for review, when appropriate

Applicable client requirements as contained in client specifications are carried forward to the suppliers through their insertion on purchase orders and SCI specifications to suppliers.

Changes and/or revisions to subcontracts and/or purchase orders follow the same process and review as the original order.

Materials used in our processes satisfy environmental, health, and safety mandates.

Verification of Purchased Product

Where Solidstate Controls, Inc. chooses to verify product at our sub-contractor(s) premises, Solidstate Controls, Inc. will specify the arrangements and the methods in the Purchase Order.

Where specified in a contract, Solidstate Controls, Inc.'s clients have the right to verify product at Solidstate Controls, Inc.'s sub-contractor(s) premises and Solidstate Controls, Inc.'s premises. However, this does not absolve the sub-contractor(s) of effective quality control.

6.4 Responsibilities

The Logistics function is responsible for ensuring that the procedures established for the control of the purchasing activities are implemented and maintained and that purchasing documents are reviewed and approved prior to release.

The R&D function is responsible for ensuring that material specifications will allow product specifications to be met.

The R&D/Quality function will determine the extent of the receiving inspection activity required, and will coordinate the assessment of vendors.

6.5 Document(s) implementing this Policy

Purchasing Procedure No. 01-090060

7.0 CONTROL OF CLIENT SUPPLIED PRODUCT

7.1 Scope

This section defines the way in which client supplied product is controlled.

7.2 Reference

ISO 9001 1994, Section 4.7

7.3 Policy

Documented procedures are established and maintained for the receipt, inspection where necessary, storage, and use of client supplied product. Problems associated with client supplied product are communicated back to the client.

7.4 Responsibilities

The Sales function is responsible for identifying client-supplied product during contract review activity, and for communicating such information to the appropriate company personnel.

7.5 Document(s) implementing this Policy

Control of Client Supplied Product Procedure No. 01-090070

8.0 PRODUCT IDENTIFICATION AND TRACEABILITY

8.1 Scope

This section defines how product identification and traceability is maintained.

8.2 Reference

ISO 9001: 1994, Section 4.8
ANSI/ASME N45.2 (Section 9)
10CFR50, Appendix B, Criterion VIII

8.3 Policy

Procedures are established, where appropriate, for identifying products from receipt and during all stages of production, delivery, and installation. These procedures aim at ensuring that product can be identified throughout the entire process.

Where traceability is a requirement, Solidstate Controls, Inc. establishes and maintains documented procedures.

When required by codes, standards, or specifications, the program provides traceability of materials, parts, or components to specific inspection or test records.

Safety related material that is procured by SCI or furnished by the Client for use shall be controlled by a documented inventory control system.

8.4 Responsibility

All personnel are responsible for observing the requirements of the procedure that implements this policy.

8.5 Document(s) Implementing this Policy

Product Identification & Traceability Procedure No. 01-090080

9.0 **PROCESS CONTROL**

9.1 Scope

This section defines the way in which manufacturing processes are controlled.

9.2 Reference

ISO 9001: 1994, Section 4.9
ANSI/ASME N45.2 (Section 10)
10CFR50, Appendix B, Criterion IX

9.3 Policy

Procedures are established to control processes that affect quality and to ensure that the processes are carried out under controlled conditions. Controlled conditions are achieved (where applicable) by:

- * utilizing documented work instructions
- * monitoring process and product characteristics
- * complying with internal, client, or regulatory requirements
- * using suitable production equipment and working environment
- * approving process and equipment where appropriate
- * providing workmanship criteria
- * verifying job set-up
- * complying with client special characteristics requirements
- * utilizing a planned total preventive maintenance system

These procedures, in conjunction with the appropriate training of personnel, ensure the manufacturing of products in a controlled process. Where applicable, certification of skills is required.

Special processes refer to processes that cannot be fully verified by subsequent inspection or testing. These processes are identified in the respective departmental procedures. Records are maintained for qualified processes, equipment and personnel, as appropriate.

9.4 Responsibilities

The Manufacturing function is responsible for establishing workmanship standards and process instructions.

The Manufacturing operators/process owners are responsible for monitoring processes and product characteristics.

The Scheduling Function establishes schedules to meet delivery commitments to clients.

The Plant Engineering function is responsible for developing and maintaining a preventive maintenance function.

The Quality Assurance function is responsible for ensuring that quality instructions adequately specify requirements.

9.5 Document(s) implementing this Policy

Process Control Procedure No. 01-090090

Systems Management Procedures and Department Procedures

10.0 INSPECTION AND TESTING

10.1 Scope

This section defines the conduct of inspection and testing activities to verify conformance to specified requirements.

10.2 Reference

ISO 9001: 1994, Section 4.10
ANSI/ASME N45.2 (Section 11)
10CFR50, Appendix B, Criterion X, XII

10.3 Policy

Receiving Inspection and Testing

Incoming inspection procedures verify consistency for purchased raw materials, components, and/or supplies from sub-contractors prior to release into production. Incoming inspection practices and procedures will be carried out and documented by qualified personnel within the quality system. The extent and level of inspection criteria is planned according to quantity and complexity of the parts and by the amount of control at the sub-contractor's premises and recorded evidence of conformance. Product is not released into production unless it has been inspected, except in the following event. Where incoming product is released for urgent production purposes, it is positively identified and recorded in order to permit immediate recall and replacement in the event of nonconformance to specified requirements.

In Process Inspection

Solidstate Controls, Inc. does:

- a) inspect, test and identify product as required by the quality plan or documented procedures:
- b) hold product until the required inspection and tests have been completed or necessary reports have been received and verified except when product is

released under positive recall procedures (see 10.3). Release under positive recall procedures does not preclude the activities outlined in a, above.

Final Inspection and Testing

The quality plan or documented procedures for final inspection and testing does require that all specified inspection and tests, including those specified either on receipt of product or in-process, have been carried out and that the data meets specified requirements.

Solidstate Controls, Inc. carries out all final inspection and testing in accordance with the quality plan or documented procedures to complete the evidence of conformance of the finished product to the specified requirements.

No product is dispatched until all the activities specified in the quality plan or documented procedures have been satisfactorily completed and the associated data and documentation is available and authorized.

Inspection and Test Records

Records shall be maintained to support product acceptance. Procedures for handling product that fails to pass inspection and test are outlined in section 13.0 of this Manual.

Additional Inspection Requirements for Nuclear "Control Jobs"

A. INSPECTION PERSONNEL:

1. Inspection personnel are other than those who perform the work.
2. Inspection personnel do not report directly to the immediate supervisor responsible for the work being performed.

B. EXAMINATIONS, MEASUREMENTS, INSPECTIONS AND TESTS:

1. Appropriate examinations, measurements, inspections and tests are performed on materials, products and parts when and where necessary to assure product quality.
2. Mandatory inspection hold points are establish based on client specification requirements. These hold points are documented.

C. INSPECTION POINTS:

1. Inspection points are those process breaks where material, parts and assemblies must be inspected and approved by a qualified inspector before the material, part or assembly may be processed to the next step.
2. The inspector is not held to making inspections at only the inspection points. Unannounced inspections/audits at any time may be used, to assure quality.

Test Control for Nuclear "Control Jobs"

Project Engineering determines, specifies, and approves test requirements. Tests, including (as appropriate) prototype qualification tests, production tests, roof tests, pre-operational tests, and operational tests are controlled. Test requirements and acceptance criteria are based on requirements applicable and pertinent to the technical documents.

TEST PROCEDURES:

Contain the prerequisites, as required, to accomplish any specific provision or objectives of the test. The test personnel shall assure that the prerequisites have been accomplished before proceeding with the test. Prerequisites may include environmental conditions, instrument calibration, appropriate equipment, trained personnel, test equipment condition, provisions for data collection, and the item to be tested.

1. Test procedures are written and shall include or reference requirements and acceptance limits as contained in applicable documents.
2. Test procedures include qualification test, proof tests, pre-operational and operational tests, as appropriate to demonstrate satisfactory performance during operation.
3. Special test requirements and special acceptance criteria are provided by the client and so stated in their specifications.
4. Test results are documented and evaluated by responsible authority to assure

that all requirements have been met.

5. Test reports are maintained in the Job File.
6. Test records shall identify item tested, date tested, test technician, type of observation, results, person evaluating test results, and any action resulting from a deviation.

10.4 Responsibilities

The Testing function is responsible for ensuring that detailed testing procedures and instructions are provided where necessary, as an aid to personnel responsible for conducting such.

The Quality Assurance function is responsible for Receiving and Final Inspection.

The Production function is responsible for in-process visual inspection and specific testing as identified in process documentation.

The operating procedures supporting this policy identify the inspection authority for release of product.

10.5 Document(s) implementing this Policy

Inspection and Testing Procedure No. 01-090100

11.0 INSPECTION, MEASURING AND TEST EQUIPMENT

11.1 Scope

This section defines the control of inspection, measuring and test equipment used by Solidstate Controls, Inc.

11.2 Reference

ISO 9001: 1994, Section 4.11
ANSI/ASME N45.2 (Section 13)
10CFR50, Appendix B, Criterion XII

11.3 Policy

Solidstate Controls, Inc. controls/maintains inspection, measuring and test to demonstrate the conformance of product to the specified requirements. Equipment is used in a manner that ensures that measurement uncertainty is known and is consistent with the required measurement capability.

Control procedures

Inspection, measuring and test equipment used to verify product is controlled via an equipment recall process and is verified and/or calibrated on site or sent out to a certified lab for periodic testing and calibration.

Solidstate Controls, Inc.:

- a) determines the measurements to be made, the accuracy required and selects the appropriate inspection, measuring and test equipment and ensures the equipment is capable of the accuracy and precision necessary;
- b) identifies inspection, measuring and test equipment with a suitable indicator or approved identification record to show the calibration status;
- c) maintains calibration records for inspection, measuring and test equipment;
- d) assesses and documents the validity of previous inspection and test results when inspection, measuring and test equipment is found to be out of calibration;
- e) ensures that the environmental conditions are suitable for the inspections, measurements and tests being carried out;

- f) ensures that the handling, preservation and storage of inspection, measuring and test equipment is such that the accuracy and fitness for use is maintained;

TEST EQUIPMENT NOT USED FOR ACCEPTANCE TESTING:

(Equipment that is not used for acceptance testing may not be calibrated to the NIST)

1. Test equipment not in calibration is tagged "Not to be used for Acceptance Testing".
2. Test equipment not used for acceptance testing is tagged "Not to be used for Acceptance Testing".

Where test hardware (e.g. jigs, fixtures, templates, patterns) or test software is used as suitable forms of inspection, they are checked to prove that they are capable of verifying the acceptability of product prior to release for use during production and are rechecked at prescribed intervals. Solidstate Controls, Inc. has established the extent and frequency of such checks and does maintain records as evidence of control. Measurement design data is made available, when required by the client or his representative, for verification that it is functionally adequate.

11.4 Responsibilities

The Quality Assurance function is responsible for coordinating calibration activity with the Test and Purchasing functions for ensuring that the on-going needs for inspection, measuring, and test equipment are identified and assigned accordingly.

It is the responsibility of all personnel to ensure that the equipment used is suitable and within its calibration period.

11.5 Document(s) implementing this Policy

Control of Inspection, Measuring and Test Equipment Procedure No. 01-090110

12.0 INSPECTION AND TEST STATUS

12.1 Scope

This section defines the way in which inspection and test status is defined.

12.2 Reference

ISO 9001: 1994, Section 4.12
ANSI/ASME N45.2 (Section 15)
10CFR50, Appendix B, Criterion XIV

12.3 Policy

Procedures ensure all required testing be performed. Approved product is identified as described in applicable procedures. When product fails testing or inspection, the affected product is identified as nonconforming and disposition is determined per section 13 of this manual.

Inspection and test records identify the inspection authority responsible for release of in-process and/or finished product.

12.4 Responsibilities

The individual performing the inspection / test is responsible for documenting inspection / tests results.

12.5 Document(s) implementing this Policy

Inspection and Test Status Procedure No. 01-090120

13.0 CONTROL OF NONCONFORMING PRODUCT

13.1 Scope

This section defines the manner for controlling material that does not conform to specified requirements and industry standards.

13.2 Reference

ISO 9001: 1994, Section 4.13
ANSI/ASME N45.2 (Section 16)
10CFR50, Appendix B, Criterion XV

13.3 Policy

All nonconforming product are, immediately upon detection, identified, documented, segregated (where practical), and held pending investigation and disposition. Such arrangements apply to material received from suppliers, clients, or from materials (product) produced at Solidstate Controls, Inc.

All nonconforming products are reviewed to determine subsequent material disposition and the possible need for corrective/preventive action. Nonconforming product may be reworked or repaired to meet specified requirements, accepted with or without repair by client concession, re-graded for an alternative application, or scrapped.

Records of all nonconformances are maintained and periodically reviewed to establish trends to determine the need for further preventive action.

Material that does not conform to client specification is only used or supplied with the client's prior knowledge and written consent. This applies equally to products or services purchased from subcontractors.

Repaired and reworked product is re-inspected in accordance with the applicable procedures.

13.4 Responsibilities

It is the responsibility of all personnel detecting a nonconformance to ensure that the material is properly identified, segregated (where practical) and reported.

The responsibilities for determining disposition of nonconforming material are defined in the procedure that implements this policy. Those responsible for disposition may refer the nonconformance to the Corrective and Preventative action system.

13.5 Document(s) implementing this Policy

Control of Nonconforming Product Procedure No. 01-090130

14.0 CORRECTIVE AND PREVENTIVE ACTION

14.1 Scope

This section defines how corrective and preventive action is identified, implemented and reviewed for effectiveness.

14.2 Reference

ISO 9001: 1994, Section 4.14
ANSI/ASME N45.2 (Section 17)
10CFR50, Appendix B, Criterion XVI

14.3 Policy

Documented procedures for implementing corrective and preventive action are established. These procedures include the effective handling of client complaints and reports of product nonconformities, investigation of the root cause, determination of corrective action and application of controls to ensure corrective action is taken and is effective.

Solidstate Controls, Inc.'s corrective and preventive action system reviews conditions adverse to quality via inputs from design reviews, quality inspectors, process and work operation information, Nonconforming product reports, supervisors, client complaints, and client product returns. The problems may be organized into a Pareto chart to identify areas requiring corrective action corresponding to the risks encountered. Disciplined problem solving methods are utilized. Parts returned from a client are analyzed; records kept, and appropriate corrective action taken to prevent recurrence.

Significant conditions adverse to quality are investigated for cause and corrective action taken to preclude recurrence. The cause of the conditions and the corrective action taken is documented and reported to appropriate levels of management.

Significant conditions adverse to quality are those which extend beyond a single or isolated condition or item. A significant condition adverse to quality must be generic in nature related to a large number of items or be a deficiency in the quality program

Nonconformances or potential causes of nonconformances may be detected in the quality system. The Quality Assurance Manager reviews each nonconforming condition and assigns responsibility (department and/or individual) for determination of root

cause, development and implementation of corrective measures, and performance of follow-up efforts to verify effectiveness of actions taken.

Required changes in procedures are completed and documented according to the documents implementing this policy.

Results of corrective and preventive actions (follow-up reports) are submitted to the Executive Staff for management review.

14.4 REPORTING OF DEFECTS AND NONCOMPLIANCE IN ACCORDANCE WITH TITLE 10 CODE OF FEDERAL REGULATIONS, PART 21. (10CFR21)

Applicability of Part 21: Traceability and failure reporting applies if this requirement is specifically referenced in a client Purchase Order. Additionally, if an order references 10CFR50, Appendix B, or Class 1E System Application. Those orders will be processed as requiring 10CFR21.

Posting: The Quality Assurance Manager shall post in a conspicuous location(s), Section 206 of the Energy Reorganization Act of 1974 and a notice which describes the regulations/procedures of 10CFR21 and indicate where they may be examined and state the job title of the individual to whom reports may be made.

Responsibilities: Each employee is responsible for notifying appropriate management of conditions which the employee perceives as potential effects or noncompliance as identified by 10CFR21.

Notification and Documentation: The identification and reporting of potential defects, or noncompliance, as defined by 10CFR21 shall be in writing, and identify all known information. An investigation shall be advocated and documented. If a defect, or noncompliance is found to exist the client for the affected item(s) shall be notified. Such notification shall reference the possible connection to 10CFR21.

Notification of the NRC: The purchaser is responsible for notifying the NRC if it determines that a reportable non-conformance exists under 10CFR21. Upon confirmation, to SCI, of a reportable nonconformance, the President or his

designee shall notify the NRC within two days.

14.5 Responsibilities

Pertinent managers are responsible for action item assignments, for coordinating internal and external nonconformances or potential nonconformances and for ensuring that implementation of the necessary corrective and preventive action takes place and that the actions are effective.

The QAM is responsible for determining the need for corrective and preventive action and assigning the investigation to appropriate departments for completion. Resulting corrective actions, corrective action implementation and follow-up on effectiveness are also tracked by the QAM.

14.6 Document(s) implementing this Policy

Corrective and Preventative Action Procedure No. 01-090140

15.0 HANDLING, STORAGE, PACKAGING, PRESERVATION AND DELIVERY

15.1 Scope

This section defines the controls employed within Solidstate Controls, Inc. for handling, storage, packaging, preservation and delivery of product.

15.2 Reference

ISO 9001: 1994, Section 4.15
ANSI/ASME N45.2 (Section 14)
10CFR50, Appendix B, Criterion XIII

15.3 Policy

Procedures are established for product handling, storage, packaging, preservation and delivery to prevent any risk to product quality. An inventory management system is established. Handling methods are prescribed to prevent damage or deterioration.

Product awaiting use or shipment is identified and segregated (where practical) in secure storage areas. Suitable measures are taken to prevent damage or deterioration including a periodic inspection for product condition. Where appropriate, controls are established for receipt and issue from storage areas.

Solidstate Controls, Inc.'s products are packaged in accordance with prescribed methods and materials designed to ensure that the product quality is maintained during transit. Preservation methods, where applicable, are documented. All materials shipped are labeled according to client requirements.

The product description, destination and transit considerations will be specified on the shipping documentation. Solidstate Controls, Inc. arranges for the protection of the quality of the product after final inspection including delivery to the client destination. Solidstate Controls, Inc. monitors delivery performance to assure client requirements are met.

Marking and labeling for packaging, storage and shipment of items is adequate

to identify, maintain and preserve the shipment, including any special instructions. Additional marking of items is in accordance with clients specifications and requirements.

15.4 Responsibilities

The Logistics function is responsible for ensuring that material is properly received, identified, protected, stored, and issued in accordance with prescribed routines.

The Logistics and Manufacturing functions are responsible for conducting regular audits of stock to determine that material is maintained in a satisfactory condition.

The Manufacturing function is responsible for ensuring that products are properly prepared for dispatch and identified accordingly.

15.5 Document(s) implementing this Policy

Handling, Storage, Packaging, Preservation and Delivery Procedure No. 01-090150

16.0 QUALITY RECORDS

16.1 Scope

This section defines the maintenance of quality records.

16.2 Reference

ISO 9001: 1994, Section 4.16
ANSI/ASME N45.2 (Section 18)
10CFR50, Appendix B, Criterion XVII

16.3 Policy

Solidstate Controls, Inc. has established and maintains procedures for identification, collection, indexing, filing, storage, access, maintenance and disposition of quality records.

Quality records are maintained to demonstrate achievement of the required quality and the effective operation of the quality system. Pertinent sub-contractor quality records are an element of these data.

All quality records are legible and identifiable to the operating procedures involved. Quality records are stored and maintained in such a way that they are readily retrievable from facilities that provide a suitable environment to minimize deterioration or damage and to prevent loss. Retention times of quality records have been established and recorded. Where agreed contractually, quality records are made available for evaluation by the client or their representative for a given period.

Quality Records shall be classified as "Non-Permanent". Records identifying the "as-built" condition, (nuclear lifetime record) are forwarded to the client for retention under the clients record system. Solidstate Controls Inc., shall not maintain lifetime records.

Quality records shall be classified in accordance with written procedures.

16.4 Responsibilities

It is the responsibility of each department manager to ensure that quality related records are compiled in a complete, legible and accurate manner and are correctly filed and stored in the location provided, where applicable.

16.5 Document(s) implementing this Policy

Control of quality records Procedure No. 01-090160

17.0 INTERNAL QUALITY AUDITS

17.1 Scope

This section defines the conduct of internal quality management system audits.

17.2 Reference

ISO 9001: 1994, Section 4.17

ISO 10011-1: 1993
ISO 10011-2: 1993
ISO 10011-3: 1993
Internal Quality System Audits (Reference Text)
ANSI/ASME N45.2 (Section 19)
10CFR50, Appendix B, Criterion XVIII

17.3 Policy

Solidstate Controls, Inc. carries out a comprehensive system of planned and documented internal quality audits to verify whether quality activities comply with planned arrangements and to determine the effectiveness of the quality system. A suitable working environment is considered as part of the internal audit process.

Audits are scheduled on the basis of the status and importance of the activity and carried out by personnel independent of those having direct responsibility for the activity being audited.

Summary results of the audits are reviewed by the Executive Staff to ascertain that the quality management system is effective in achieving its objectives and continues to reflect the company's policy.

17.4 Responsibilities

The Management Representative is responsible for directing the planning, performance and reporting activities of the internal audit team.

The Internal Audit Team (Lead auditor and Audit Team Members) is responsible for ensuring the audit plan and follow-up activities are carried out.

Department managers being audited are responsible for timely investigation of nonconformances. Corrective Action Plans are agreed among the Department Manager, the Management Representative and the Lead Auditor and planned and implemented by the department.

17.5 Document(s) Implementing this Policy

Internal Quality Audits Procedure No. 01-090170

18.0 TRAINING

18.1 Scope

This section defines the provisions made within the company to ensure that all personnel are adequately trained for the tasks that they are required to undertake.

18.2 Reference

ISO 9001: 1994, Section 4.18

ANSI/ASME N45.2 (Section 2)
10CFR50, Appendix B, Criterion II

18.3 Policy

Solidstate Controls, Inc. identifies training needs and provides training for all positions that contain activities affecting the quality of our products and services. Personnel performing specific assigned tasks are qualified on the basis of education, training, and/or experience, as required.

Management and supervisory personnel are assigned based on previous education, training and experience. Quality job responsibilities for these positions are contained in this manual. On the job training is not documented for these positions.

Training needs, and those receiving the training are documented and the company uses these to appraise the level of competence of personnel both before and during engagement.

18.4 Responsibilities

Functional department heads are responsible for identifying specific training needs and ensuring that only personnel who are suitably qualified perform tasks requiring acquired skills.

Functional department heads are responsible for analyzing instances of nonconformance for evidence of insufficient skill, job knowledge or training.

The Human Resources function is responsible for establishing and maintaining the appropriate training records.

18.5 Documents implementing this Policy

Training Procedure No. 01-090180

19.0SERVICING

19.1 Scope

This section defines servicing as it related to Solidstate Controls, Inc. operations.

19.2 Reference

ISO 9001: 1994, Section 4.19

19.3 Policy

Solidstate Controls, Inc. provides installation, training, maintenance and support services for its clients based on contractual arrangements. Procedures for performing, verifying, and reporting of service activities are documented.

19.4 Document(s) Implementing this Policy

Servicing Procedure No. 01-090190

20.0 STATISTICAL TECHNIQUES

20.1 Scope

This section defines the policy for use of statistical techniques within Solidstate Controls, Inc.

20.2 Reference

ISO 9001: 1994, Section 4.20

20.3 Policy

Where appropriate, Solidstate Controls, Inc. has established procedures for using statistical techniques for determining process capability and product characteristics.

Where statistical techniques are used for product verification, due regard is given to the contractual requirements of the client.

20.4 Responsibilities

It is the responsibility of all personnel using statistical techniques to observe the relevant procedures.

20.5 Document(s) Implementing this Policy

Statistical Techniques Procedure No. 01-090200

APPENDIX "A"

Quality System Responsibility

President: Responsible for defining the overall direction of the company in terms of quality and is responsible for defining the company Quality Policy and the authority for ensuring consistency in the quality of products and services provided to clients of Solidstate Controls, Inc..

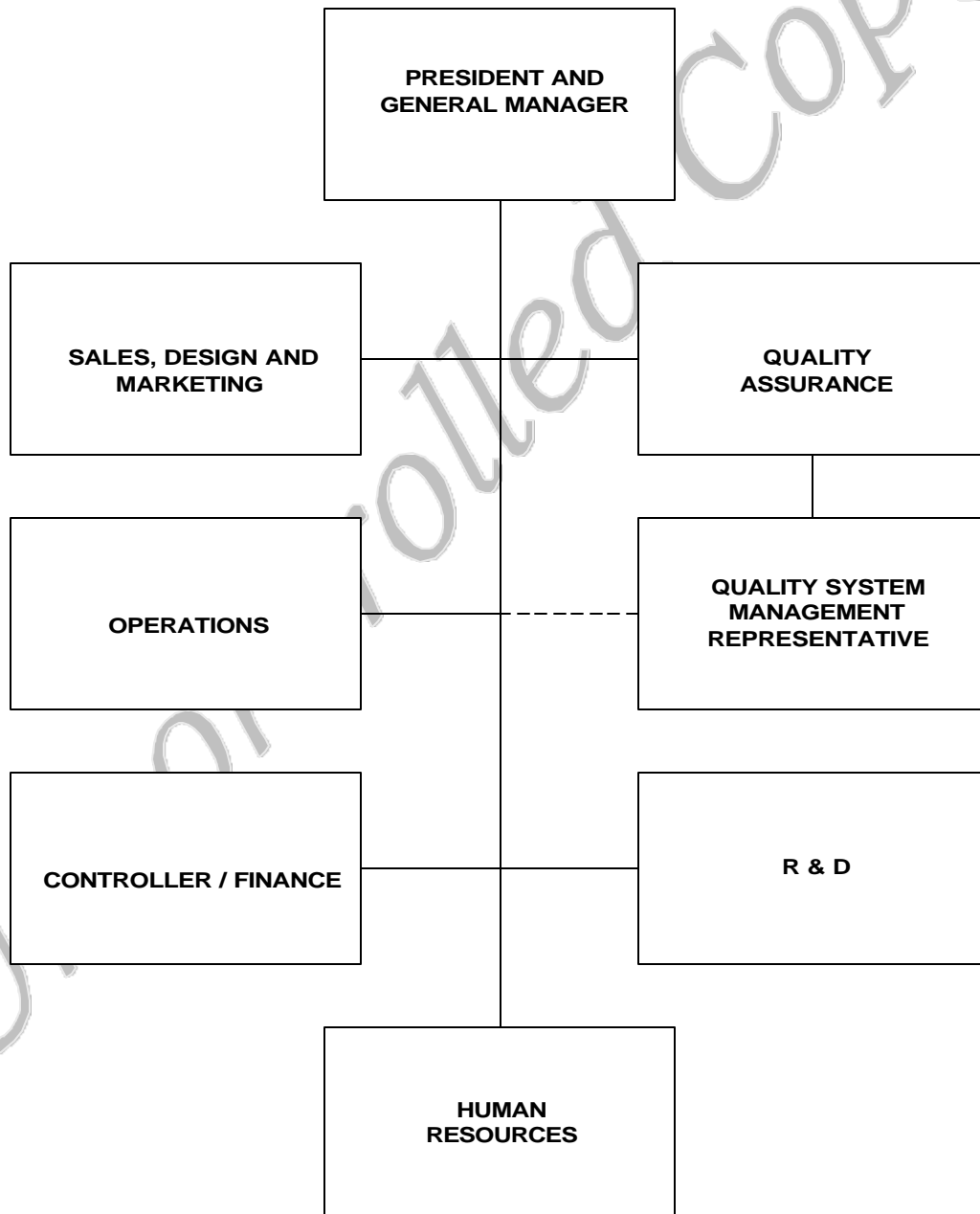
Management Representative: The MR, irrespective of other responsibilities, has the authority and responsibility to provide direction to the overall quality system effort. Must ensure that a quality system is established, implemented and maintained. Reports on the performance of the quality system to management during management review and as a basis for quality system improvement. Qualification for this position is based on education and experience, and would not require basic skills training.

Executive Staff: The Staff, irrespective of other responsibilities, has the responsibility and authority to ensure that quality systems applicable to company and client requirements are met, and periodically reviewed, with nonconformances identified and actions taken accordingly to ensure the requirements of ISO 9001 are implemented and maintained. Qualification for this position is based on education and experience, and would not require basic skills training.

Management and supervisory personnel: Managers and Supervisors, irrespective of other responsibilities, have the authority and responsibility for ensuring that quality systems applicable to his/her operations are met, and periodically reviewed, with nonconformances identified and actions taken accordingly to ensure the requirements of ISO 9001 and other quality system standards are implemented and maintained. Qualification for these positions is based on education and experience, and would not require basic skills training.

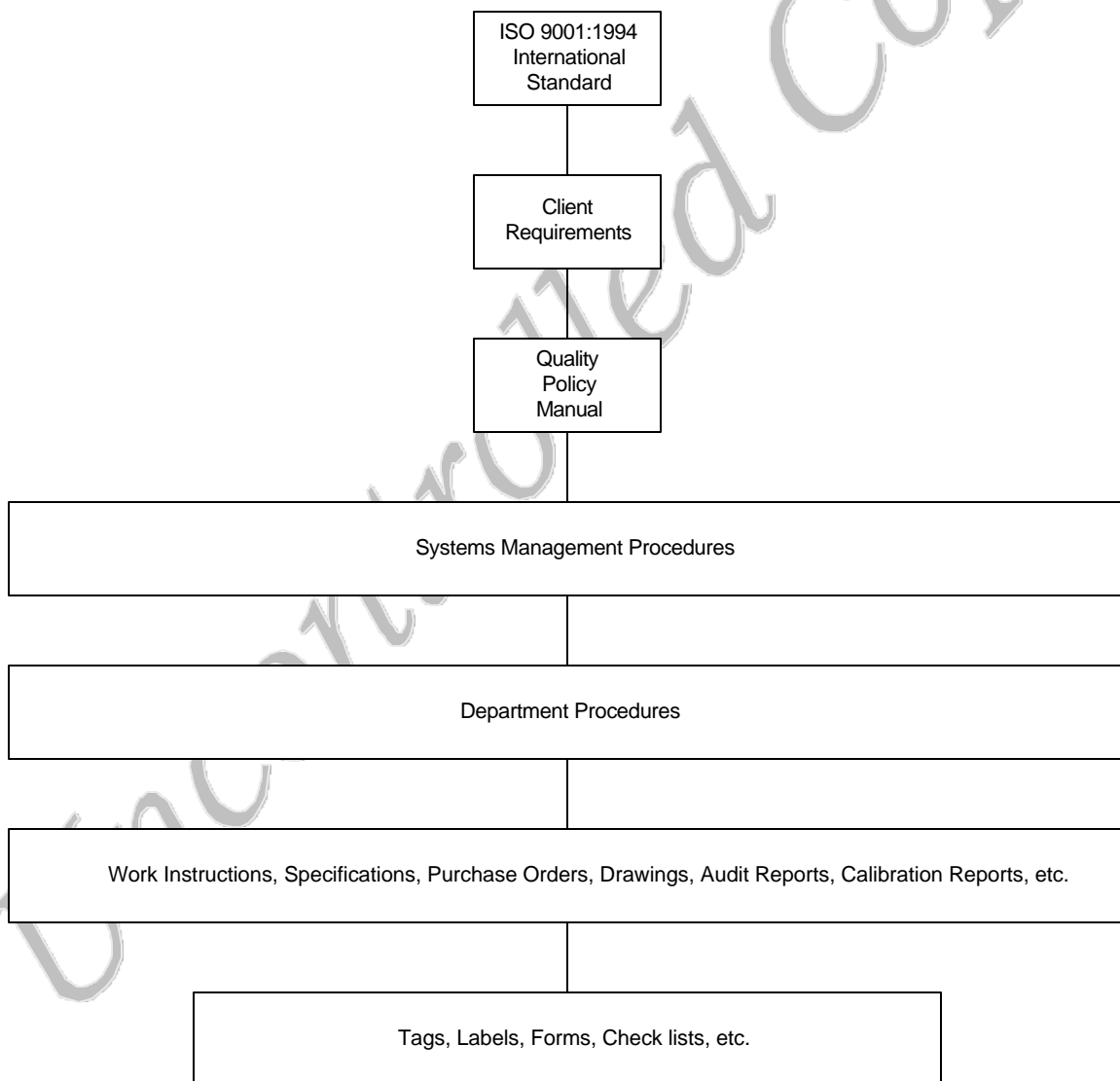
Technical and administrative personnel: Technical and administrative personnel, irrespective of other responsibilities, have the authority and responsibility for ensuring that quality systems applicable to his/her operations are met, and periodically reviewed, with nonconformances identified and actions taken accordingly to ensure the requirements of ISO 9001 and other quality system standards are implemented and maintained. Qualification for these positions is based on education and experience, and would not require basic skills training.

APPENDIX "B"
Quality System Organization



APPENDIX "C"

Quality System Structure



APPENDIX "D"

Terminology

Capability - Capability is the total range of inherent variations in a stable process.

Control Plans - Written descriptions of the systems for controlling parts and processes. They are written to address the important characteristics and engineering requirements of the product.

Controlled Document - a document (form, procedure, manual or portion thereof) that is current as determined by the Document and data control procedure (Procedure No01-090050) and/or the Master List (Form No. 02-090050)

Corrective Action Plan - a plan for correcting product or quality system problems.

Client - anyone who has purchased a product or service supplied by Solidstate Controls, Inc..

Department Procedures - Procedures that apply to individual Departments or workgroups and reference system level procedures.

Document Control - the function of implementing the system procedures that meet the requirements of section 4.5, Document and data control, of ISO 9001:1994.

Environment - all of the process conditions surrounding or affecting the manufacture and quality of a part or product.

Functional Verification - testing to ensure the part conforms to all client and Solidstate Controls, Inc. engineering performance and material requirements.

Internal Requirements - work responsibilities that are defined in specifications and procedures for support and manufacturing departments of Solidstate Controls, Inc.

Modification - Design changes made and documented by Solidstate Controls, Inc. to enhance performance and/or to facilitate repairs.

Nonconformance - occurrence of product or material which does not conform to the client requirements or specifications.

Nonconformity - an activity or process which does not conform to a quality system requirement.

Obsolete Document - any controlled document that is not current as determined Document and data control procedure (Procedure No01-090050) and/or the Master List (Form No. 02-090050).

Procedure Manual - a collection of documented procedures that support the Quality Policy Manual with detailed descriptions of the operations of support and manufacturing departments.

Quality Audit - a systematic examination to determine whether functional activity results comply with planned corporate objectives.

Quality Planning - a structured process for defining the methods that will be used in the production of a specific product or family of products.

Quality Policy Manual - documented overview of the Quality System that identifies the philosophies and activities relevant to the support and manufacturing departments within Solidstate Controls, Inc..

Systems Management Procedures - system level procedures that document requirements that apply to the entire quality system and/or provide a point of reference and structure for Department level procedures.

ISO Steering Committee Team - A cross-functional team that monitors the development and implementation of the quality system and ensures that it continues to be effective.

Repair - action taken on nonconforming product so that the product will fulfill the intended usage although the product may not conform to the original requirements.

Rework - action taken on nonconforming product so that it will meet the specified requirements.

Sales Order (Blue Sheet) – internal order entry and job order document used to translate client purchase requirements to SCI requirements for processing from order entry through invoicing.

Sub-Contractor - depicts an approved company/supplier from which Solidstate Controls, Inc. purchases materials, parts or services for support of our manufacturing functions.

Training - a) the process of learning a job or operation with someone who is already skilled or trained at that particular operation within Solidstate Controls, Inc., b) attending classes through the corporate training department, outside colleges, seminars, workshops, etc., to obtain or increase knowledge of a particular subject related to Solidstate Controls, Inc..

Unit History Log (Discrepancy Log, “Red” Book) – quality record that documents all observations and actions for each major system unit, e.g. battery charger, inverter, isolimiter, etc. from the start of final assembly.