



**THE
OKONITE
COMPANY**

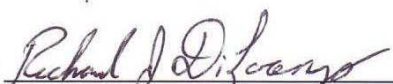


SYSTEM MANUAL

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QUALITY SYSTEM MANUAL

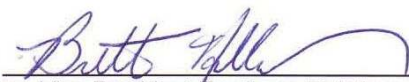
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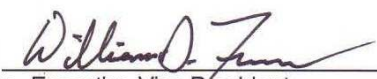
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Revision No. 4 - October, 1989
Revision No. 5 - August, 1997
Revision No. 6- October, 2006
Revision No. 7- July, 2010
Revision No. 8 - October 21, 2013
Revision No. 9 - May 14, 2015
Revision No. 10 - June 24, 2016

NOTE: Latest revision shown in BOLD

QUALITY SYSTEM MANUAL

DISTRIBUTION

Distribution of this manual is done electronically. The on-line version of this manual, located at, (<http://okonite.com/qualityassurance.html>) is the only “controlled” document. Paper copies of this document that are printed and distributed to customers and Okonite employees are to be considered “Uncontrolled”.

PREFACE

It is the Okonite Company's intention to provide our customers with safe and reliable electrical cables supported by an effective Quality Management System consistent with our customers needs.

Having serviced the quality conscious domestic and global nuclear generating industry successfully since the 1970's, we have committed to enhance our Corporate QA Program based on 10CFR50 (Code of Federal Regulations) Appendix B, ANSI/ASME NQA-1, which has been in place since 1974, with a Quality Management System Certified to the **ISO 9001:2015** Quality Management Standard at ALL Okonite Manufacturing Plants, Customer Service Centers, Corporate Headquarters and Engineering & Research Labs.

The system supported by **Revision No. 10** of this manual is compliant with the requirements of **ISO 9001:2015**, 10CFR50 Appendix B, ANSI/ASME NQA-1-1994, AAR M1003 and other quality Standards referenced, according to Okonite facility location (see page 3). To assist our customers who use Quality Systems other than **ISO 9001:2015**, Appendixes A & B have been provided to show the correlation between the quality elements of 10CFR50 Appendix B, NQA-1 and AAR M-1003.

The Okonite Company, which is employee owned since 1976, is committed to comply with **ISO 9001:2015**. As always, The Okonite Company welcomes our customers to visit and evaluate our World Class facilities and see first hand how we have been successful with providing Customer Satisfaction, *SINCE 1878*.

QUALITY SYSTEM MANUAL

Quality System Manual Revision List

Revision	Date	Description of Change
0	March 1974	Initial Release
1	April 1976	Expanded program coverage to include Worcester, MA plant, all commercial (non-nuclear) product activities, combination of Engineering/Research duties. Incorporate ANSI N45.2 QA standard. Revised pages issued.
2	June 1977	Expanded coverage to include Paterson, N.J. plant, addition of compliance recognition with ASQC-1, MIL-I45208 Quality Specifications, clarify QA administration responsibilities; quality requirements for P.O.s; Okonite controlled documents; calibration record requirements; retention of specific QA records, and the addition of Design Reviews for Nuclear orders. Complete reissue.
3	July 1982	Program addition of Ashton, RI plant, changes involving editorial clarifications, job titles, minor form revisions. Worcester, MA plant deleted from program. Complete reissue.
4	October 1989	Identified current program responsibilities and procedures. Deleted Passaic, NJ plant from program. Complete reissue.
5	August 1997	Improve existing Nuclear QA Program to comply with ISO 9000 Quality System. Addition of AAR QA Std M1003, Orangeburg, S.C. plants. Deleted N. Brunswick, NJ plant from the system. Complete reissue.
6	October 2006	Add commitment for qualification audit of Safety Related Service suppliers; recognition of traceability of paper insulated cables produced at Paterson, NJ plant; expiration of Policies QI 2,3&4 in Sect. 4.14.4; change in job titles consistent with current Organization Tables A,B,C and deleted Birmingham, AL. Customer Service Center (Pg 3, Table C). Complete Reissue.
7	July 2010	Changes in Customer Service Center locations; new Title Management Review Team; clarify Management Rep. independence; Independent Nuclear PO review' Design Verified Safety Related orders; add Commercial Grade Dedication responsibilities for Calibration Service Suppliers, 10CFR Part 21 compliance, Safety & Environmental Programs, records of incoming raw material and Cable Inspections/tests, acceptance of 10 CFR 50 App B cable inspections/tests performed by qualified independent personnel; re-direction of Statistical Techniques; Related Documentation-added Policies MF-2, QA-3, QA-7, S&E-1 and S&E-3. Addition of Appendix B Matrix correlating QSM Sections vrs 10 CFR 50 App B & NQA-1.
8	October 27, 2013	Complete change of the Quality System from ISO 9000:1994 to ISO 9001:2008. Revised organization charts and their controlled location. Added additional policy references in support of ISO elements. Added conversion matrix for AAR M-1003. Revised job titles
9	May 14, 2015	Clarified Exclusions for Okonite locations based on 2013 & 2014 ISO audits. Corrected page numbering of Appendix A-D in Index. Clarified Paterson Plant QS compliance. Corrected typo in Appendix A. Added policy reference for Infrastructure (FE-1), Customer Feedback (QA-22) and Preventive Action Program (MS 8-1-206). Clarified calibration purchasing requirements for nuclear and commercial. Local Plant Purchase Orders.
10	June 24, 2016	Converted the QSM to the format of ISO 9001:2015. Added several new section to comply with the new standard. Clarified some previous sections to better address the requirements of the new standard.

This manual shall contain only the pages issued by the Company. The Corporate Management Representative is responsible for authorized changes and distribution.

Master Copy of this quality system manual, kept in the custody of the Corporate Management Representative, shall be the final authority as to amendment status for all sections in the manual.

QUALITY SYSTEM MANUAL

TABLE OF CONTENTS

Title and Approval Page	Page No. i
Distribution	ii
Preface	ii
Quality System Manual Revision List	iii

Section	Page
1.0 Scope and Exclusions	1
2.0 Normative References	3
3.0 Terms and Definitions	4
4.0 Context of the Organization	5
4.1 Understanding the organization and its context	5
4.2 Understanding the needs and expectations of interested parties	5
4.3 Determining the scope of the quality management system	5
4.4 Quality management system and its processes	7
5.0 Leadership	12
5.1 Leadership and Commitment	12
5.1.1 General	12
5.1.2 Customer focus	12
5.2 Policy	12
5.2.1 Establishing the quality policy	12
5.2.2 Communicating the quality policy	12
5.3 Organizational roles, responsibilities and authorities	13
6.0 Planning	13
6.1 Actions to address risks and opportunities	13
6.2 Quality objectives and planning to achieve them	14
6.3 Planning of changes	14
7.0 Support	15
7.1 Resources	15
7.1.1 General	15
7.1.2 People	15

QUALITY SYSTEM MANUAL

Section	Page
7.1.3 Infrastructure	15
7.1.4 Environment for the operation of processes	15
7.1.5 Monitoring and measuring resources	15
7.1.6 Organizational knowledge	16
7.2 Competence	16
7.3 Awareness	17
7.5 Communication	17
7.5 Documented information	17
7.5.1 General	17
7.5.2 Creating and updating	17
7.5.3 Control of documented information	19
8.0 Operation	19
8.1 Operational planning and control	19
8.2 Requirements for products and services	19
8.2.1 Customer communication	19
8.2.2 Determining the requirements for products and services	20
8.2.3 Review the requirements for products and services	20
8.2.4 Changes to requirements for products and services	22
8.3 Design and development of products and services	22
8.3.1 General	22
8.3.2 Design and development planning	23
8.3.3 Design and development inputs	23
8.3.4 Design and development controls	23
8.3.5 Design and development outputs	23
8.3.6 Design and development changes	23
8.4 Control of externally provided processes, products and services	23
8.4.1 General	23
8.4.2 Type and extent of control	23
8.4.3 Information for external providers	25
8.5 Production and service provision	25

QUALITY SYSTEM MANUAL

Section	Page
8.5.1 Control of production and service provision	25
8.5.2 Identification and traceability	28
8.5.3 Property belonging to customers or external providers	28
8.5.4 Preservation	28
8.5.5 Post-delivery activities	29
8.5.6 Control of changes	29
8.6 Release of products and services	29
8.7 Control of nonconforming outputs	30
9.0 Performance Evaluation	31
9.1 Monitoring, measurement, analysis and evaluation	31
9.1.1 General	31
9.1.2 Customer satisfaction	32
9.1.3 Analysis and evaluation	32
9.2 Internal audit	32
9.3 Management review	33
9.3.1 General	33
9.3.2 Management review inputs	33
9.3.3 Management review outputs	33
10.0 Improvement	33
10.1 General	33
10.2 Nonconformity and corrective action	34
10.3 Continual improvement	35

Appendix A	Conversion Matrix (10CFR50 Appendix B, NQA-1 to Okonite QSM Elements)	Page: 36
Appendix B	Conversion Matrix (AAR M-1003 to Okonite QSM Elements)	Page: 37
Appendix C	Okonite Quality Policy	Page: 38
Appendix D	Okonite Quality Improvement Statement	Page: 39
Appendix E	Interested Parties	Page: 40

QUALITY SYSTEM MANUAL

1.0 SCOPE AND EXCLUSIONS

1.1 The Okonite Company Quality System Manual provides general policies and procedures for the manufacturing, packaging, testing, storage, and distribution of Okonite products and/or services. The Okonite Company Quality System Manual is the top-tier quality document for The Okonite Company located at 102 Hilltop Road, Ramsey, NJ, 07446.

1.2 Company Background

In 1878, John Haven Cheever and Henry F. Durant formed the New York Insulated Wire and Vulcanite Company in Passaic, New Jersey. The combination of Durant, a lawyer by profession and an entrepreneur, together with Cheever who was an expert on rubber vulcanization provided the wherewithal for the formation of this new company. Captain Candee, a founder of the company, coined the word "Okonite" to describe the company's insulating material. The O.K. was taken from the receipt signal commonly used by telegraphers at the conclusion of a message and the "nite" from the Vulcanite. The "O" was added to ease the pronunciation. In 1885, the New York Insulated Wire and Vulcanite Company was succeeded by The Okonite Company. About this time Okonite introduced to the American wire and cable industry the "multiple strip process" which provided two improvements over existing methods of insulating. It assured uniform insulation thickness about the copper conductor and freedom from voids and imperfections which contributed to early failure of the electrical cables.

Samuel F. B. Morse's use of Okonite wires for his telegraph network and the cable supplied to Thomas A. Edison for the nation's first generating station erected on Pearl Street, New York City, in 1882, brought Okonite a great deal of prestige and recognition.

In 1928 Okonite purchased the insulated wire and cable facilities of the Hazard Manufacturing Company located in Wilkes Barre, Pennsylvania.

In 1931 Charles Bennett introduced his development of the high pressure pipe type electrical transmission cable which is still in general use throughout the world.

In 1948, Okonite acquired the Okonite Calendar Cable Company, for which the Paterson, New Jersey, plant had been constructed.

In 1957 the Wilkes Barre, Pennsylvania plant was moved to a new facility located in North Brunswick, New Jersey.

In 1958 The Okonite Company was acquired by Kennecott Copper Corporation. In 1964 Okonite introduced ethylene propylene rubber (EPR) to the wire and cable industry. Trade named "Okoguard" it was enthusiastically received in the marketplace and because of its exceptional balance of characteristics has become the insulation used by Okonite in its line of premium wire and cables for service from 5,000 to 69,000 volts.

In 1966 Okonite was acquired by Ling Temco Vought Inc. Okonite operated as a subsidiary of LTV until early 1971. During this period of time Okonite constructed manufacturing plants in Santa Maria, California, and Richmond, Kentucky.

In 1973 Okonite acquired its Ashton, Rhode Island telecommunications plant.

In 1975, Okonite presented a unique purchase concept having as its basis the "beneficial ownership of The Okonite Company by all its employees through the provisions of an Employee Stock Ownership Trust". The Okonite Company was sold to Okonite's ESOP for \$44 million on June 30, 1976. Okonite became the largest

QUALITY SYSTEM MANUAL

company in the United States whose shares of stock are owned by its employees. Okonite continues to operate under this unique ownership system to this present date.

In 1993 Okonite opened the doors on two new manufacturing plants in Orangeburg, South Carolina. One plant is devoted to the mixing of Okonite's unique insulating, semiconducting and jacketing compounds and the other is a modern manufacturing plant devoted to producing cables in heavy demand throughout the southern states.

In 2015, operations in the Ashton Cable Plant were transferred to a brand new building in Cumberland Rhode Island. This facility manufactures our low voltage instrumentation, power and control cables using the latest, state of the art, equipment.

1.3 Products and Services

The Okonite Company manufactures cables that range from 300V to 345kV insulated products that include Instrumentation, Power and Control, Medium Voltage, and High Voltage cables. These cables are manufactured with a variety of insulating and jacketing materials including Okoguard® EPR, laminated polypropylene paper (LPP), and other thermosetting and thermoplastic compounds. Many, but not all, of the products are detailed in the Okonite catalog which can be found at http://okonite.com/Product_Catalog/index.html. Okonite's products are backed by a team of application engineers along with our electrical and materials laboratories that are available to provide technical assistance and services on all of our manufactured products.

1.4 Exclusions

This manual covers the Okonite Quality System as it meets the intent of the following National and International QA Standards:

QUALITY ASSURANCE STANDARD	TITLE
ASQC C1-1996	Specification of General Requirements for a Quality Program
APPENDIX B to 10CFR50 (Nuclear Regulatory Commission)	Quality Assurance Criteria For Nuclear Power Plants
ANSI N 45.2	Quality Assurance Program Requirements for Nuclear Facilities
ANSI/ASME NQA-1 (1994)	Quality Assurance Program Requirements for Nuclear Facilities
IAEA 50-C-QA	Code on the Safety of Nuclear Power Plants, Quality Assurance
AAR M-1003	Association of American Railroads, Specification for Quality Assurance
ISO 9001:2015	Quality Management Systems - Requirements
OKONITE COMPANY LOCATION	COMPLIANCE LEVEL
Corporate Headquarters: Ramsey New Jersey Engineering Lab-Paterson, NJ Research Lab-Paterson, NJ	A, B, D A, D A, D
Manufacturing Plants: 01 Orangeburg, South Carolina 02 Paterson, New Jersey 04 Orangeburg, South Carolina 05 Santa Maria, California 06 Cumberland, Rhode Island 07 Richmond, Kentucky	A, E C A, B, E A, B, E A, B, E A, B, E

QUALITY SYSTEM MANUAL

Customer Service Centers:	
Houston, Texas	F
Imperial, Pennsylvania (Pittsburgh)	F
Edwardsville, Kansas (Kansas City)	F
Portland, Oregon	F
St. Rose, Louisiana (New Orleans)	F

Applicable Codes: A = Appendix B to 10CFR50
 B = ANSI N45.2, ASME NQA-1 and IAEA 50-C-QA
 C = M-1003 (**Compliant**) (10)
 ASQC C1, ISO 9002:1994 (1st Party Certification)

Indicated ISO level covered under third Party Certification

D = ISO 9001:2015; (See Note 1)
 E = ISO 9001:2015; (See Note 2)
 F = ISO 9001:2015; (As defined in P&PD QA-14)

Note 1 - No Manufacturing or warehouse activities are performed at the corporate HQ or the Paterson Labs.

Note 2 - At all manufacturing facilities, there is no Design Control (8.3) activity. This is performed only in corporate HQ. Purchasing (8.4.2) is limited to informing corporate HQ of raw materials needed, incoming inspection and annual verification of Certified Suppliers. Plants are responsible for the purchasing of calibration service.

To facilitate the understanding and implementation of Okonite's Quality System the manual format is modeled after the requirements of ISO 9001:2015.

This manual serves as a Level 1 document that briefly describes our policies and activities that support and maintain Okonite's Quality System. When applicable, Level 2 procedural documents (referred to as Quality Policy and Procedure Documents, Manufacturing Standards, etc) are referenced in the manual after each Quality System Requirement section. Latest revisions apply.

2.0 NORMATIVE REFERENCES

Other subordinate documents of this manual that contain references will provide the necessary referrals.

AAR - Association of American Railroads
 50 F Street, N. W.
 Washington, D.C. 20001-1564
www.aar.org

ANSI - American National Standards Institute
 11 West 42nd Street
 New York, New York 10036
www.ansi.org

ASME - American Society of Mechanical Engineers
www.asme.org

ASQ - American Society for Quality
 611 East Wisconsin Avenue P.O. Box 3005
 Milwaukee, Wisconsin 53201-9488
www.asq.org

QUALITY SYSTEM MANUAL

- CSA - Canadian Standards Association
178 Rexdale Boulevard
Rexdale, Ontario, Canada M9W 1R3
<http://www.csagroup.org/ca/en/services/codes-and-standards>
- IAEA - International Atomic Energy Agency
Vienna, Austria
www.iaea.org
- UL- Underwriter Laboratories Inc.
1285 Walt Whitman Blvd.
Melville, New York 11747-3081
www.ul.com
- AEIC - The Association of Edison Illuminating Companies
www.aeic.org
- ICEA - Insulated Cable Engineers Association
P.O. Box 1568
Carrollton, GA 30112
www.icea.net

3.0 TERMS AND DEFINITIONS

Quality Terms and Definitions shall be as listed in ISO Standard 9000:2015.

Any deviation from the definitions in the ISO document above shall be listed below.

C&R- Cost and Routing Sheet, an Okonite work instruction that provides the sequence that components are processed on an order with the specific instructions needed to meet specification and order requirements.

PC - Personal Computer

P&PD - Policy and Procedure Document

PLS - Product Line Specification

TR - Technical Requirement

MS - Manufacturing Standard

QSM - Quality System Manual

Quality System - The organizational structure, authority, responsibilities, procedures, processes, and resources for implementing quality management.

Responsible personnel - When responsible personnel listed in this manual are not available at a location, the facility manager shall assume the duties and responsibilities listed or appoint suitable personnel to perform the duties.

Special Processes - Industry processes commonly referred to involving heat treating, welding, non-destructive testing technologies including ultrasonic, eddy-current, magnetic particle, gamma radiography and dye penetration. These special skill processes are not applicable to Okonite operations.

QUALITY SYSTEM MANUAL

4.0 Context of the Organization

4.1. Understanding the organization and its context

- 4.1.1 The Okonite Company identifies the processes needed for the quality management system and their application per **P&PD QA-19 (Okonite Quality Management System - Compliance)**.
- 4.1.2 The Okonite Company determines the sequence and interactions of processes by carefully analyzing processes, systems, and procedures per **P&PD MF-1 (Manufacturing Standard Procedures)** and **Manufacturing Standard 8-1-119 (Manufacturing Specifications Instructions)**. Documentation of these process sequence and interactions may be in various forms, such as, Flowcharts, Gantt charts, memoranda, and other internal documents.
- 4.1.3 The Okonite Company determines criteria and methods to ensure Quality Management System processes based on the nature, relative importance, and priority. These methods and criteria are documented as per **P&PD QA-13 (Management Review Responsibilities)**.
- 4.1.4 The Okonite Company ensures the availability of resources and information necessary to support the operation and monitoring of these processes per **P&PD HR-1 (Okonite Training Program)** and **P&PD QA-4 (QA Training/Qualification)**.
- 4.1.5 The Okonite Company monitors, measures, and analyzes these processes per **P&PD QA-16 (Okonite Quality Audits)**, **P&PD MF-13 (Manufacturing Goals Program)** and **P&PD P-1 (Supplier Rating System)**.
- 4.1.6 The Okonite Company implements actions necessary to achieve planned results per **P&PD QA-9 (Corrective and Preventive Action Program)**.
- 4.1.7 The Okonite Company performs risk assessments and takes action to address these risks and opportunities per **P&PD QA-24 (Risk Analysis)**.
- 4.1.8 The Okonite Company shall determine external and internal issues that are relevant and have an impact on the Quality Management System. These issues are addressed with senior management during the course of the Management Review process.

4.2. Understanding the needs and expectations of interested parties

- 4.2.1 The Okonite company monitors and reviews the needs of interested parties during the course of corporate Management Reviews. See Appendix E for a listing.

4.3 Determining the scope of the quality management system

- 4.3.1 The Okonite quality management system is designed to meet the requirements of our nuclear, railroad and commercial customers per **P&PD QA-19 (Okonite Quality Management System - Compliance)**
- 4.3.2 The Okonite Company Quality System Manual is the top-tier or Level 1 document per **P&PD QA-18 (Quality System Documentation)**.

The Okonite Company's Policy & Procedure Documents (P&PD), Product Line Specifications (PLS) Technical Requirements (TR), Manufacturing Standards (MS) and Laboratory

QUALITY SYSTEM MANUAL

Manuals, required by the ISO 9001 Standard are Level 2 documents.

The Okonite Company's Manufacturing Specifications, Engineering Drawings, Laboratory Procedures and other technical documentation that describe product manufacture, servicing processes and flowcharts, etc... are Level 3 documents.

The Okonite Company's Production Records, Test Records, Training Records, Audit Reports and other quality records etc. are Level 4 documents

4.3.3 Quality System Manual

The Okonite Company maintains a Quality System Manual that is reviewed over the course of a year during the Management Review process. Any changes/revision to the manual can only be made by the Director - Quality Assurance (Corporate Management Representative) or an authorized individual. All revisions must be reviewed and signed by the current individuals in the positions identified on page i.

4.3.4 Scope

The Okonite Company's overall Scope of Work which is stated in our ISO 9001:2015 Certificate is as follows:

"The design and manufacture of a broad range of electrical wire and cable products, including product development, manufacturing facilities, customer service centers, testing laboratories and the HQ activities in support of cable plants, compound plant and customer service centers."

4.3.5 Applicability

In total, our organization applies all elements of the ISO9001:2015, however, some facilities do not perform all activities. The table below describes the scope of work for each facility and identifies the elements of the Standard which do not apply to their operations.

Facility	Scope	Elements that are not Applicable
Ramsey Corporate HQ and Paterson Labs	The design and development of a broad range of electrical wire and cable products which involve product development, research and engineering laboratories and the HQ activities in support of cable plants, compound plant and customer service centers.	7.1.5 Monitoring and Measuring Resources 8.5 Production and Service Provision 8.6 Release of Products and Services
Orangeburg Compound Plant	The manufacture and testing of compounds used for electrical wire and cable products.	8.2 Requirements for Products and Services
Richmond, Cumberland, Santa Maria and Orangeburg Cable Plants	The manufacture and testing of a broad range of electrical wire and cable products.	8.3 Design and Development
Houston, Kansas City, Pittsburgh, Portland and New Orleans Service Centers	The storage, processing and packaging of a broad range of electrical wire and cable products.	8.2 Requirements for Products and Services 8.3 Design and Development

QUALITY SYSTEM MANUAL

4.4 Quality Management Systems and its processes

The Okonite Company has an established Quality Management System where the various processes are defined in the level 1, 2, and 3 documents defined in **P&PD QA-18 (Quality System Documentation)**. The main Quality Management System documentation are as follows:

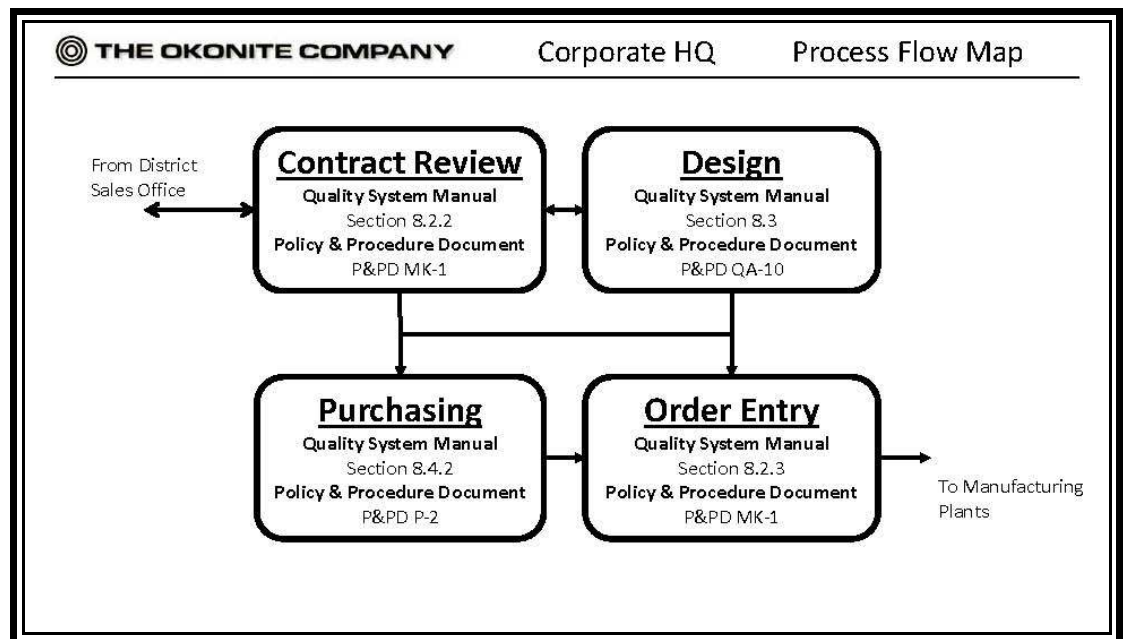
Policy and Procedure Documents (P&PD) - Issued under the control of corporate Quality Assurance, documents are maintained on the Okonite intranet. Responsibility for individual policies is identified on the index where relevant QMS section is identified along with the current individual/department of ownership.

Product Line Specifications (PLS) - Issued under the control of corporate Engineering, documents are maintained on the Okonite intranet and in hard paper copies. Responsibility for individual specifications is assigned by the Vice President - Engineering to the appropriate Applications Engineer.

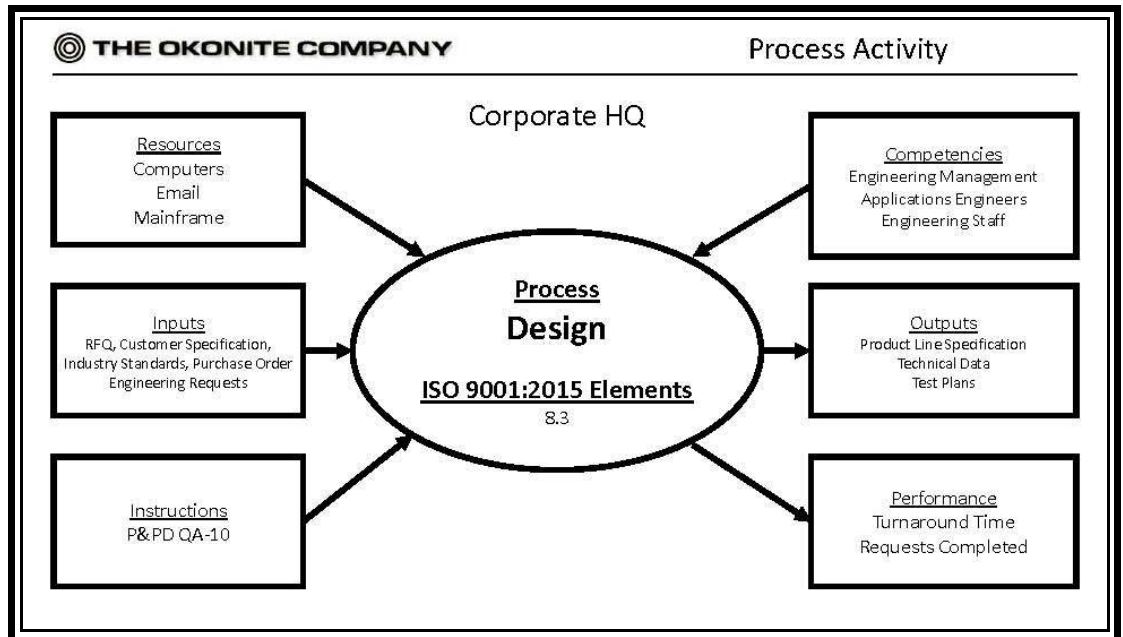
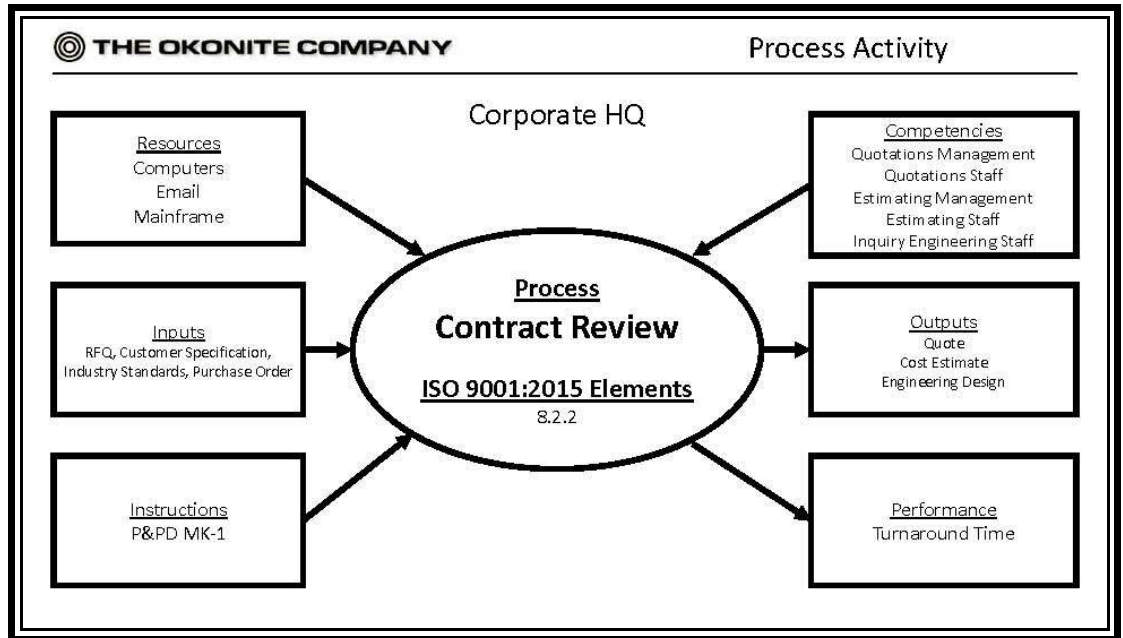
Technical Requirements (TR) - Issued under the control of corporate Research, documents are maintained on the Okonite intranet and in hard paper copies. Responsibility for individual TR's is assigned by the Vice President - Manufacturing Engineering & Research to the appropriate Research personnel.

4.4.1 Process Flow Diagrams

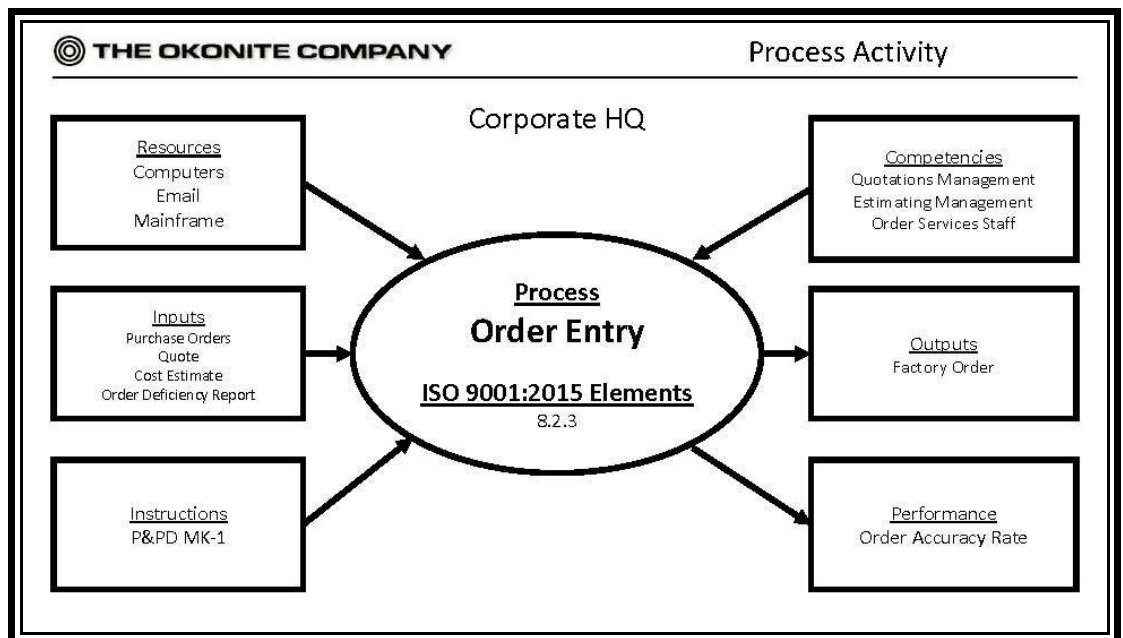
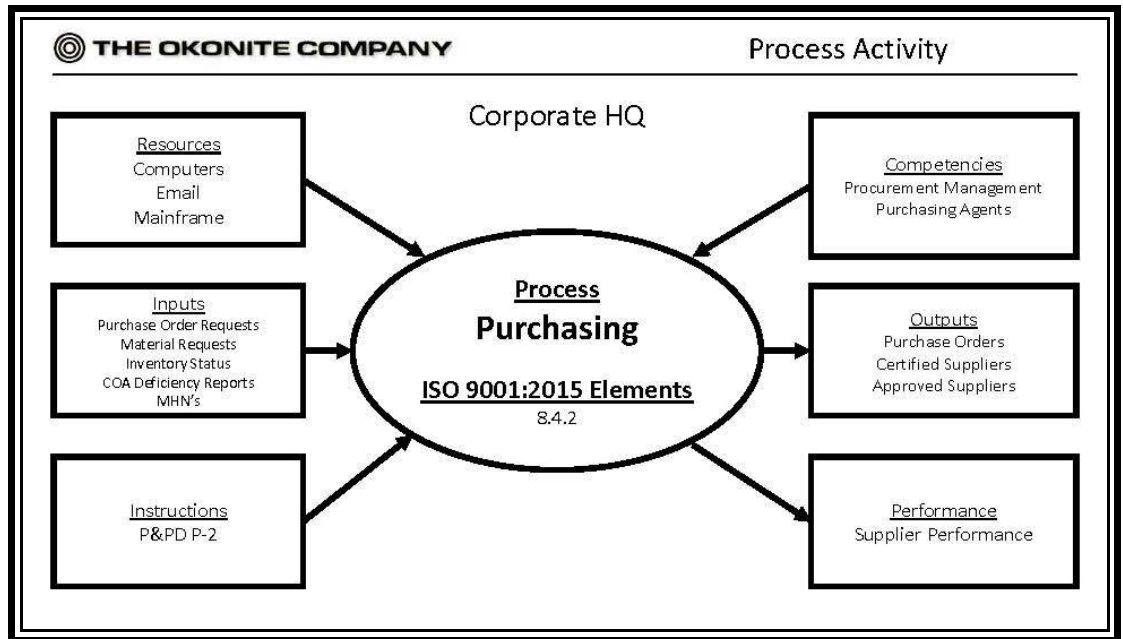
4.4.1.1 Corporate HQ & Paterson Labs



QUALITY SYSTEM MANUAL

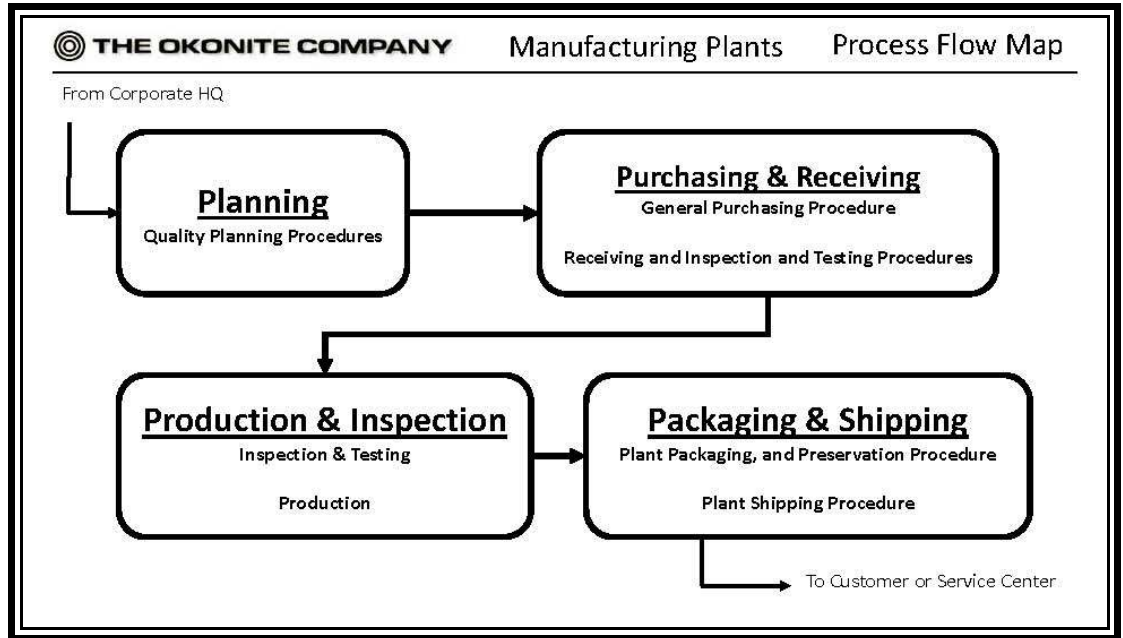


QUALITY SYSTEM MANUAL



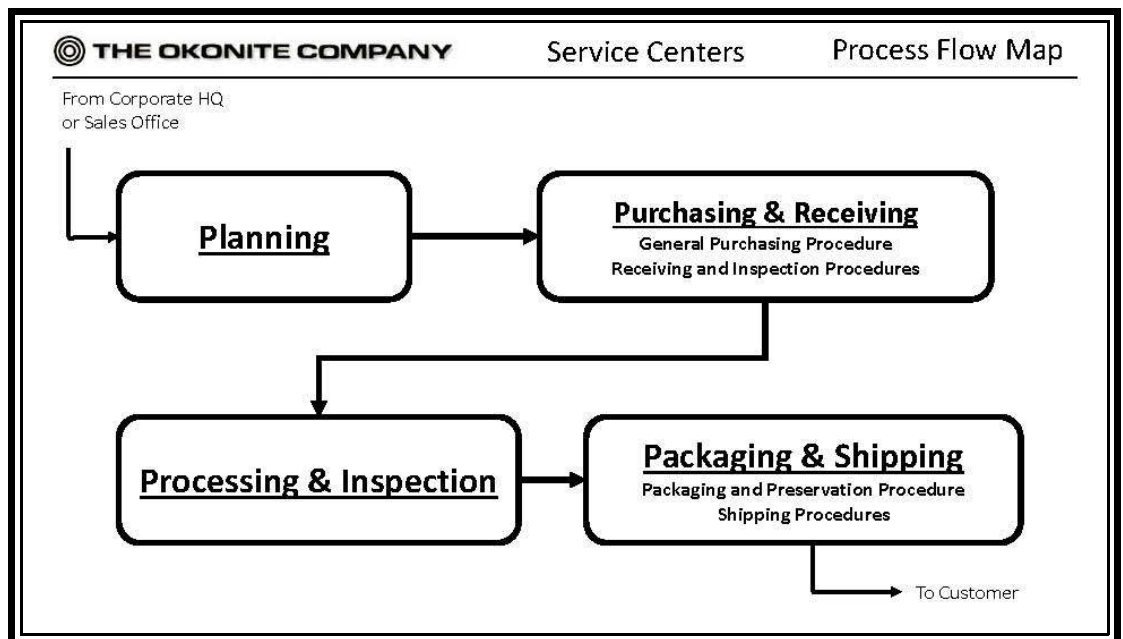
QUALITY SYSTEM MANUAL

4.4.1.2 Manufacturing Plants



Each manufacturing facility shall have more detailed process flow diagrams located in their quality assurance manual (Cost Center 90).

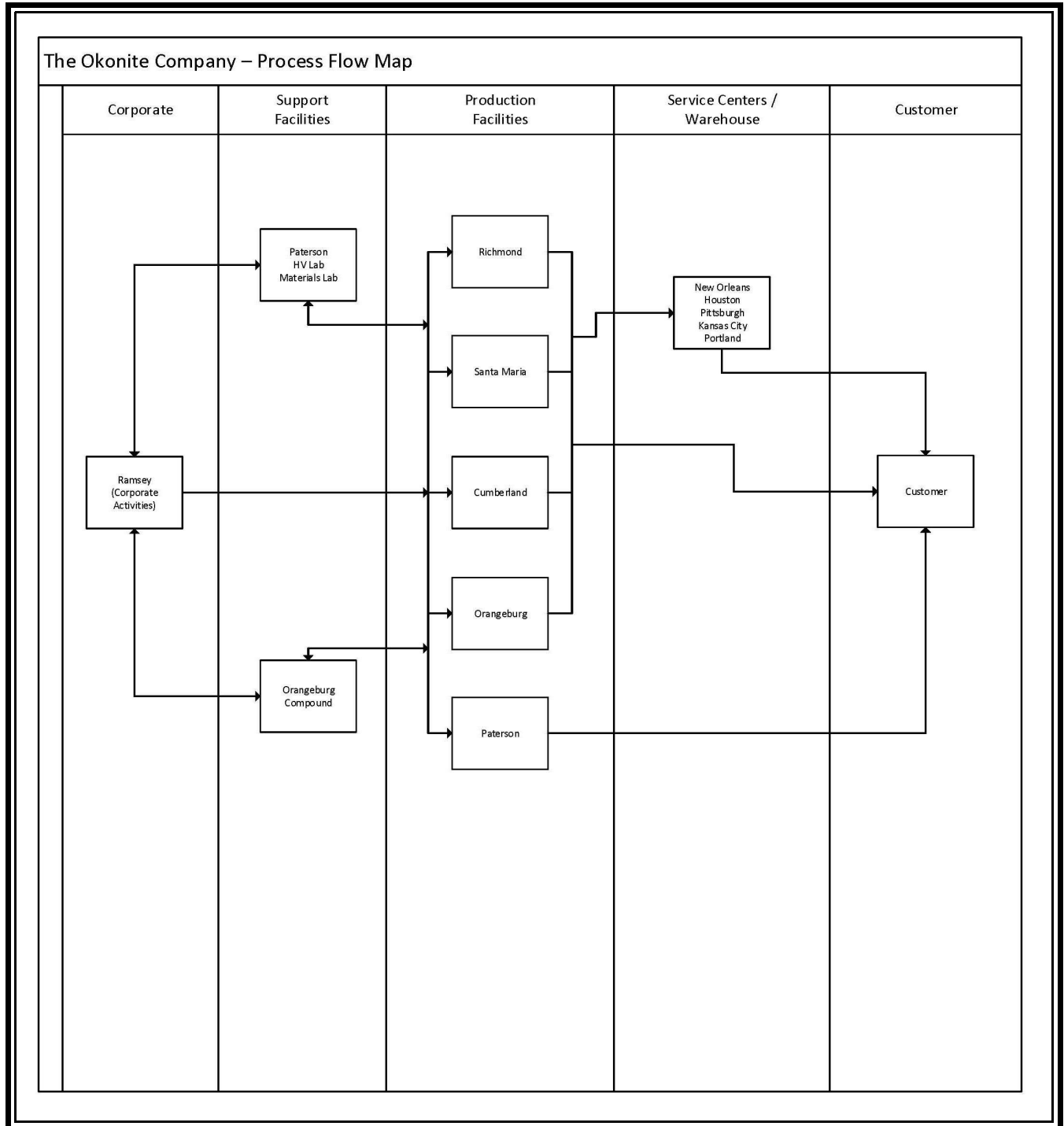
4.4.1.3 Customer Service Centers



All Service Centers follow the procedures and quality system as described in P&PD QA-14.

QUALITY SYSTEM MANUAL

4.4.1.4 Okonite Company Process Flow Map



QUALITY SYSTEM MANUAL

5.0 Leadership

5.1 Leadership and Commitment

5.1.1 General - The Okonite Company top management defines, develops and implements the quality management system per **P&PD QA-13 (Management Review Responsibilities)**.

Top management demonstrates leadership and ensures that employees at all levels within the organization understand the goals and objectives of The Okonite Company quality management system.

The Okonite Company conducts regular Management Review Meetings and discusses the importance of meeting the following:

- ! Customer requirements.
- ! Quality objectives / Quality Policy.
- ! Statutory, legal, and regulatory requirements.
- ! Continuous improvement goals.
- ! Availability of resources.
- ! Risk analysis
- ! Interested parties

5.1.2 Customer Focus

The Okonite Company ensures that customer requirements and risks are determined and fulfilled per **P&PD MK-1 (Okonite Order Entry)**, **P&PD QA-2 (Customer Non-Conformance Response Procedure)** and **P&PD QA-22 (Customer Communication)**. Statutory and regulatory requirements are reviewed to determine impact and risk by the appropriate Legal, Safety, Engineering, HR and QA departments.

5.2 Quality Policy

5.2.1 Establishing the quality policy

The Okonite Company Quality Policy as per **P&PD QA-15 (Quality Policy)** identifies the key elements which guide this organization. A printed version of this policy can be found as Appendix C of this manual and is available for download on the Okonite web page at: <http://okonite.com/qualityassurance.html>

The Okonite Company goal is to provide customers with high-quality products. The Okonite Company accomplishes this goal by listening to customer's needs and translating those needs into continuously improved products and services.

5.2.2 Communicating the quality policy - Senior Management at The Okonite Company is responsible for assuring the quality policy is understood, implemented, and maintained at all levels. This is accomplished through one-on-one and/or group training of all employees. The quality policy describes The Okonite Company overall intentions and directions with regard to quality. Postings of this policy can be found throughout all facilities.

QUALITY SYSTEM MANUAL

5.3 Organizational roles, responsibilities and authorities

The Okonite Company defines the responsibilities and authorities of staff at all levels through Organizational Charts. Organization charts describing the senior management structure are maintained on the Okonite web page at: <http://okonite.com/qualityassurance.html>. The Okonite Company maintains job descriptions where additional specific responsibilities and authorities are described.

The Okonite Company defines the interrelation of staff at all levels through the use of lower tier Organization Charts. These charts are maintained by Human Resources and distributed to all department heads.

Each department: Quality Assurance, Administration, Sales/Marketing, Operations, and Engineering are responsible for updating their department responsibilities, as the organizational structure of the company changes.

The Okonite Company communicates these responsibilities and authorities and their interrelation are defined and communicated at all levels per at least annually.

5.3.1 Management Representative

The Okonite Company appoints the Director - Quality Assurance as the Corporate Management Representative per **P&PD QA-13 (Management Review Responsibility)**. A local Management Representative shall be appointed and qualified for each location. The Management Representative has sufficient independence and authority to ensure Nuclear Safety Related activities are performed to requirements and Quality System requirements are maintained. In the absence of the Management Representative, a qualified person is appointed.

Management Representative is authorized and responsible for:

- A. Ensuring the quality management system is implemented, maintained and continually improved.
- B. Promoting awareness of customer requirements throughout the organization.
- C. Reporting to the top management on the performance of the quality system, including needs for improvement.
- D. Coordinating communication with external parties on matters relating to the quality system and ISO 9001 registration.

6.0 Planning

6.1 Actions to address risks and opportunities

The Quality Management System of The Okonite Company analyzes risks associated with programs and activities and looks for opportunities for improvement per **P&PD QA-24 (Risk Analysis)**.

The purpose of this program is to:

- Give assurance that the Quality Management System can achieve its intended results.
- Enhance desirable effects.
- Prevent, or reduce, undesired effects.
- Achieve improvement.

QUALITY SYSTEM MANUAL

- 6.1.1 An assessment is prepared of the impact new products, projects, or contracts will have with regards to the following resources:
- Information Technology: determine the computer hardware, software, and applications.
 - Documentation: Engineering Drawings, Technical Requirements, Manufacturing Standards, Manufacturing Specifications and other manufacturing documents.
 - Equipment: manufacturing equipment, servicing equipment and inspection, measuring and test equipment.
 - Human resources: ensure all staff has appropriate skills for the job/tasks performed.
 - Parts: availability of raw materials, components, and manufacturing aids.
 - Quality audits: planned audit(s) after activity completion.
- 6.1.2 The Okonite Company manufactures its products according to documented Product Line Specifications (**P&PD R&E-2**), Manufacturing Standards (**P&PD MF-1**), Engineering Drawings (if applicable) and Manufacturing Specifications (**MS 8-1-119**). Documentation is recorded and retained as per **P&PD QA-5 (Document and Data Control)** and **P&PD QA-12 (Record Retention Procedure)**.
- 6.1.3 Preventive Action - The Okonite Company preventive action procedures **are identified in Manufacturing Standard 8-1-206 (Okonite Preventive Action Log)**, which includes the following:
1. Use of appropriate sources of information to detect, analyze, and eliminate potential causes of the nonconformity.
 2. Determining the steps needed to deal with any problems requiring preventive action.
 3. Initiating preventive action and applying controls to ensure that it is effective.
 4. Ensuring that relevant information on actions taken, including changes to procedures, is submitted for management review.

6.2 Quality Objectives and planning to achieve them

- 6.2.1 When a new product, project, or contract is evaluated for adoption into The Okonite Company quality system, the appropriate staff members meet to define and document how the requirements for quality will be met per **P&PD MF-2 (Engineering Design Changes)**, **P&PD MF-5 (Experimental Order Procedure)**, **P&PD MK-1 (Okonite Order Entry)**, **P&PD P-2 (Okonite Purchasing System)**, **P&PD QA-10 (Design Control)**, **P&PD QA-20 (Customer Project Specific Quality Plans)**, **P&PD R&E-1 (Technical Requirement Program)**, **P&PD R&E-2 (Product Line Specification Program)** and **MS 8-1-170 (New and Major Modified Equipment Installation)**.
- 6.2.2 When planning Quality Objectives, The Okonite Company identifies and monitors progress during the Management Review process.

6.3 Planning of changes - When the Management Review Team determines that there is a need for change to The Okonite Company Quality Management System, changes are carried out in a planned manner and monitored during the Management Review process. Issues considered by the Management Review Team are:

- The purpose of the changes and their potential consequences.
- The integrity of the Quality Management System.
- The availability of resources.
- The allocation or reallocation of responsibilities and authorities.

QUALITY SYSTEM MANUAL

7.0 Support

7.1 Resources

- 7.1.1 General** - The Okonite Company determines and provides the resources needed to implement and maintain the quality management system per **P&PD QA-13 (Management Review Responsibility)**. Resources are provided to continually improve its effectiveness and to enhance customer satisfaction per **P&PD QA-2 (Customer Non-Conformance Response Procedure)**.
- 7.1.2 People** - During the Management Review process, The Okonite Company reviews the human resource requirements to maintain the effective management of the Quality Management System.
- 7.1.3 Infrastructure** - The Okonite Company provides and maintains buildings, workspace, equipment, and support services needed to achieve conformity to product requirements, The Directors of Facilities Engineering have overall responsibility to maintain the Okonite infrastructure. Computer and telephone systems are the responsibility of the Director of Management Information Systems. The routine maintenance of Okonite production & test equipment is as per **P&PD MF-9 (Equipment Maintenance & TPM Program)**. Responsibility for Okonite Infrastructure is defined in **P&PD FE-1 (Okonite Infrastructure)**.
- 7.1.4 Environment for the operation of processes** - The Okonite Company manages the work environment in accordance with all general health and safety requirements, employee agreements, and laws and regulations per **P&PD S&E-1 (Safety Policy & Procedure)** and **P&PD S&E-3 (Energy & Environmental Policy)**. All Okonite facilities are required to maintain proper housekeeping as defined in **P&PD HR-2 (Housekeeping)**.

7.1.5 Monitoring and measuring resources

- 7.1.5.1 General** - The Okonite Company controls, calibrates, and maintains inspection, measuring, and test equipment and ensures the equipment is used within established tolerances per **P&PD QA-17 (Control of Inspection, Measuring, and Test Equipment)**, **MS 8-11 (Approved Calibration Suppliers)** and **MS 8-11-1 (Equipment Calibration Accuracy Requirements)**. For calibration suppliers who provide calibration service in support of Okonite's nuclear products, a Commercial Grade Dedication is performed per **P&PD QA-21 (Commercial Grade Dedication Program)**.

Responsibility and Authority - Quality Assurance is responsible for the control and calibration of the inspection, measuring, and test equipment. Vice President Engineering is responsible for determination of accuracy requirements on all acceptance equipment.

- 7.1.5.2 Measurement Traceability** - Following elements comprise the Okonite calibration system:

1. Inspection and test equipment is selected and used based on desired attribute to be evaluated and the degree of accuracy required.
2. Calibration is performed on applicable equipment at scheduled intervals based on the complexity, frequency of use and calibration performance.
3. The calibration system utilizes documented procedures that are established

QUALITY SYSTEM MANUAL

- and maintained that define calibration criteria, procedures, equipment and out-of-calibration action (impact on product produced).
4. Calibrated equipment is positively identified by a system that permits for indication when previously calibrated and next Due date.
 5. Calibration records are maintained for all inspection, measuring and test equipment.
 6. Equipment is used and stored in locations adequate to ensure accuracy and fitness for use.
 7. Measurement standards are controlled to assure against misuse/abuse.
 8. Calibrations are performed with use of standards that are traceable to SI units of measurement through NIST.

- 7.1.6 Organization Knowledge** - The Okonite Company has determined the knowledge necessary for the operation of its processes and to achieve conformity of products and services. At the corporate level, technical and manufacturing knowledge is recorded and documented by means of Manufacturing Standards per **P&PD MF-1 (Manufacturing Standard Procedures)**. At the plant level, technical and manufacturing knowledge is recorded and documented by means of Manufacturing Specifications per **MS 8-1-119 (Form Q119 - Manufacturing Specifications Instructions)**.

Organization knowledge based on internal sources (e.g. intellectual property, inventions, new research, etc...) is the property of The Okonite Company per **P&PD HR-3 (Okonite Knowledge and Property)**.

Organization knowledge based on external sources (e.g. Industry Standards, academia, contractors, etc...) is gathered, stored and reviewed by the responsible departments. Industry Manufacturing Standards that impact The Okonite Company are the responsibility of the Vice President - Engineering per **MS 1-3 (Applicable Industry Standards)**. Quality Standards that impact The Okonite Company are the responsibility of the Director - Quality Assurance. Safety and Environmental Standards that impact The Okonite Company are the responsibility of the Director - Safety and Environmental.

7.2 Competence

- 7.2.1 The Okonite Company hires competent personnel. Personnel competencies are based on appropriate education, training, skills, and experience. The Okonite Company maintains records of education, training, skills, and experience of all staff. The Okonite Company manages its human resources per **P&PD HR-1 (Okonite Training Program)**.
- 7.2.2 Responsibility and Authority - The Vice President Employee Relations is responsible for establishing and maintaining policy and procedures for identifying training needs. Personnel department is responsible for reviewing training needs and maintaining training records. Managers and supervisors are responsible for establishing and maintaining quality training programs appropriate for employees under their supervision.
- 7.2.3 Quality Activity - Procedures govern the creation and review of quality related job descriptions and work procedures to identify employment prerequisites and identify the Company's training needs.

Training records are maintained by the Personnel Department as defined under record retention procedures.

QUALITY SYSTEM MANUAL

7.3 Awareness

- 7.3.1 The Okonite Company determines the necessary competence for personnel performing work-affecting quality. These competencies are translated into essential job duties and described in Job Descriptions. Training/Qualification of all QA related personnel as per **P&PD QA-4 (QA Training/Qualification)**.
- 7.3.2 The Okonite Company identifies employee-training needs via Job Descriptions and Training Guides. Training for all personnel are documented per **P&PD HR-1 (Okonite Training Program)**.
- 7.3.3 The Okonite Company provides on-the-job training and periodically evaluates the effectiveness of training provided per **P&PD HR-1 (Okonite Training Program)**. Safety training and effectiveness are described in **P&PD S&E-1 (Safety Policy and Procedure)**.
- 7.3.4 The Okonite Company communicates its personnel the relevance and importance of their activities and how they contribute to the quality objectives during informal and regularly scheduled meetings.

7.4 Communication

- 7.4.1 Internal Communication - The Okonite Company communicates the effectiveness of its quality management system periodically to staff via Management Review meetings per **P&PD QA-13 (Management Review Responsibility)**. Basic company communication responsibility is defined in **P&PD FE-1 (Okonite Infrastructure)**.

The primary method of basic communication is via telephones, email or faxes. Responsibility for the setup, maintenance and servicing of this activity is with the Vice President - Management Information Systems (MIS). Emails are established for all applicable employees. Limitations are established by the MIS department to prevent unauthorized communication. Security of the electronic communications system is handled by MIS per **P&PD MIS-1 (Okonite Antivirus Security Policy)**.

The communication of new or revised controlled documents and software is conducted per **P&PD QA-5 (Document & Data Control)**.

7.5 Documented Information

- 7.5.1 **General** - The Okonite Quality Management System contains documented information that is required by ISO 9000 and information determined to be necessary for the effectiveness of the Okonite Quality Management System. See section 4.3.2 for the breakdown on document structure.

7.5.2 Creating and updating

7.5.2.1 Control of Documents

- A) The Okonite Company controls all applicable internal and external documents and data such as P&PD's, Manufacturing Standards, Manufacturing Specifications, Labeling, Test Procedures, Production Records, Product Line Specifications, Technical Requirements, Laboratory Procedures and other quality records and controlled documents per **P&PD QA-5 (Document and Data Control)**, **P&PD QA-12 (Record Retention Procedure)** and **MS 1-3 (Applicable Industry Standards)**.

QUALITY SYSTEM MANUAL

- B) Responsibility and Authority - The issuing division /location/department is responsible for review and approval of changes to the documented quality system. A Document Controller at each location is responsible for distribution of controlled documents requiring receipt Control. Software involved with the manufacture and acceptance of Okonite products is controlled to assure appropriate approval, changes and issue.
- C) Quality Activity - The quality system is documented by the Quality System Manual, policies, operational procedures, work instructions, and specific quality related manuals.

Documents are generated by specified persons in the departments concerned. Changes to controlled documents must be authorized by the same function/department responsible for original approval and are approved prior to issue. Procedures ensure that the latest issue of required documents are available at all locations where needed. Where practicable, nature of change shall be identified in the document or attachments.

Procedures ensure the prompt disposal of obsolete documents to prevent unintended use.

- D) The Okonite Company reviews and approves all applicable documents for adequacy prior to issue. The Okonite Company maintains a Master Document List (Index for each document type). Each Index contains the date of issue, current revision level and the date it was last reviewed per **P&PD QA-5 (Document and Data Control)**.
- E The Okonite Company also ensures only pertinent issues of appropriate documents are available for use and obsolete documents are promptly removed and suitably identified to prevent inadvertent use.
- F The Okonite Company ensures proper record keeping per **P&PD QA-12 (Record Retention Procedure)**.

7.5.2.2 Control of Quality Records

- A) The Okonite Company maintains quality records per **P&PD QA-5 (Document and Data Control)** and **P&PD QA-12 (Record Retention Procedure)** . The following are examples of The Okonite Company quality records:

- ! Organizational Charts (Section 5.3)
- ! Management Review Meeting Minutes
- ! Approved Supplier Listings (Section 8.4.2.2)
- ! Production Test Records
- ! Non-Conformance Records
- ! Process / Product Validation Reports
- ! Equipment Calibration Records
- ! Complaint Records
- ! Part 21 Records
- ! Internal Audit Records
- ! Training Records

QUALITY SYSTEM MANUAL

- B) Responsibility and Authority - The Management Representative has overall responsibility for the retention and maintenance of the facility's quality records. The Corporate Management Representative is responsible for specifying what records are needed to document conformance to the operative quality system standards and to customer requirements. Records are defined, filed and maintained to allow for easy access.
- C) Quality Activity - Procedures outline the quality records to be retained, the custodian, location and retention intervals. Nuclear Safety Related production order records shall be stored within Fire Rated cabinets with limited/authorized access. To comply with the requirements of NQA-1-1994, all nuclear safety related records shall also be electronically scanned for dual storage and off site backup.

Customers are permitted access to quality records where provision is made in approved contracts.

7.5.3 Control of documented information - Covered in section 7.5.2.

8.0 Operation

8.1 Operational planning and control

- 8.1.1 The Okonite Company quality objectives for products are defined in Technical Requirements (**P&PD R&E-1**), Product Line Specifications (**P&PD R&E-2**), Manufacturing Standards (**P&PD MF-1**), Manufacturing Specifications (**MS 8-1-119**), Cost & Routing Sheets (**MS 1-11**), Engineering Drawings, contract documents (**P&PD MK-1**), internal and external standards (**MS 1-3**), Quality Plans (**P&PD QA-20**), and applicable legal and regulatory requirements.
- 8.1.2. The Okonite Company conducts the required verification, validation, monitoring, inspection and test activities per the following standard operating procedures
 - **MS 6-1-2 (Test, Inspection & Quality Documentation).**
 - **MS 6-9 (Process Control).**
 - **MS 6-9-1 (Validation Requirements for Insulation & Jackets).**

8.2 Requirements for products and services

8.2.1 Customer communication

- 8.2.1.1 The Okonite Company processes of customer feedback and complaints per **P&PD QA-2 (Customer Non-Conformance Response Procedure)**. On a regular basis complaint trend analysis reports are prepared and submitted to management for management review meetings.

The Customer Non-Conformance Reports are organized into three main categories:

#1 Plant Activity - This report is a summary of Customer Non-Conformances. This includes cables that were shipped to a customer from a Plant or Service Center. This is a comprehensive report that identifies and ranks the non-conformances. Trending analysis is then conducted to show direction.

QUALITY SYSTEM MANUAL

#2 By Sales Region - This report tracks the status of “Open” complaints. This report is generated more frequently in an effort to assure a prompt response and satisfactory closure to customer complaints.

#3 Service Centers - This is a summary report of the complaints received from Okonite Service Centers on cables received from Manufacturing Plants.

- 8.2.1.2 The normal method employed by The Okonite Company to facilitate customer communication is through the use of District Sales Offices. A current listing of all District Sales Offices is maintained on the Okonite web page at;

http://okonite.com/Sales_Offices/index.html

Through direct contact with sales representatives and district team members, customers are able to gain access to a wide range of resources to assist them. Customer activity is reported to corporate headquarters by means of regular activities reports and special communications reports as needed.

8.2.2 Determining the requirements for products and services

- 8.2.2.1 For product requirements specified by the customer (special orders), various Okonite departments (QA, Marketing, Engineering, Quotations, Manufacturing, Purchasing, as needed) review the requirements. The requirements not specified by the customer are also reviewed, and the company's capacity and capability to meet all applicable requirements are determined before the order is taken. This process is defined by **P&PD MK-1 (Order Entry)** and **P&PD QA-10 (Design Control)**.
- 8.2.2.2 For product requirements not specified by the customer (catalog products), The Okonite Company requirements for product characteristics, packaging, and support are determined and reviewed in the process of designing or developing the product per **P&PD QA-10 (Design Control)** and **P&PD R&E-2 (Product Line Specification Program)**.

8.2.3 Review of the requirements for products and services

- 8.2.3.1 All customer orders are reviewed to ensure The Okonite Company can provide products and services in an efficient and accurate manner per **P&PD MK-1 (Okonite Order Entry)**. (See Figure 1) Those orders that become back-orders shall have the highest priority in order to fulfill customer commitments.
- 8.2.3.2 When amendments to contracts are made, the customer and the appropriate Okonite departments are notified of the changes.

QUALITY SYSTEM MANUAL

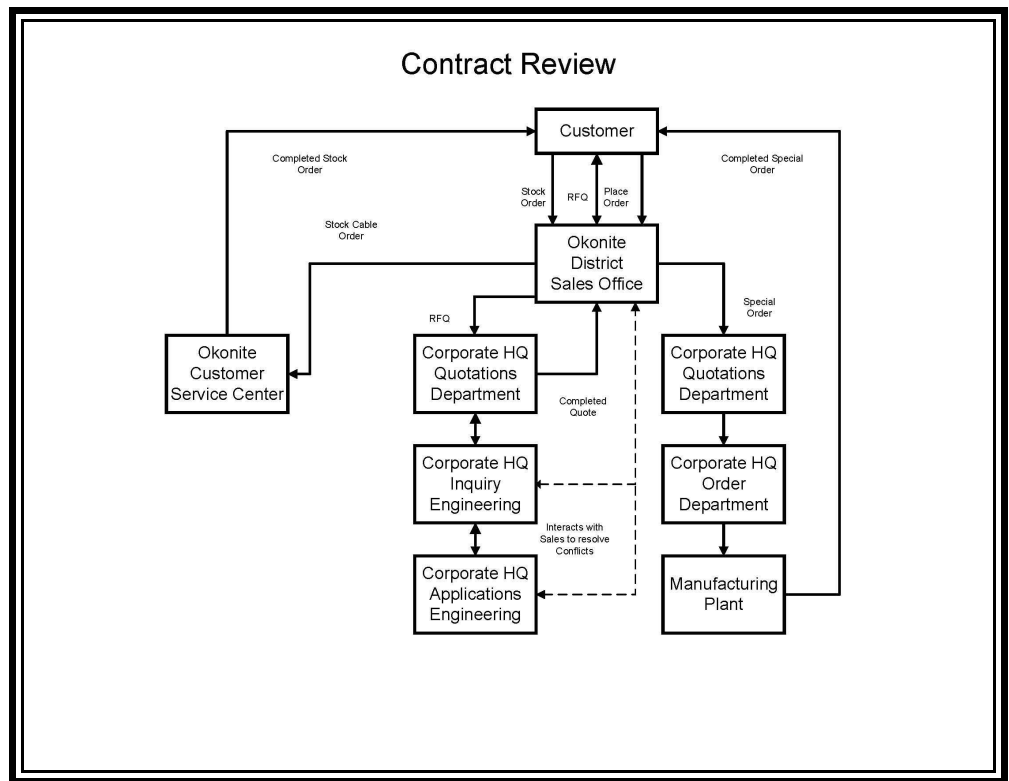


Figure 1

- 8.2.3.3 Responsibility and Authority - Sales Representatives provide the applicable Specification for each customer request and in conjunction with Quotations are responsible for contract review.

Inquiry Engineering is responsible for customer specification review.

Customer Service is responsible for review with regard to planning, and scheduling of production.

Quotations maintains for each customer request, all original documents submitted and any subsequent documents with specific changes.

- 8.2.3.4 Quality Activity - Customer contact with The Okonite Company is through the Sales Division. The Sales District-Customer Service Representative is responsible for receiving and assuring customer requirements are reviewed. Requirements for stock cables are placed for delivery from inventory at an Okonite Customer Service Center. Requests for quotations (RFQs) are forwarded to Quotations Department (Ramsey) for capability, price and delivery.

Quotations coordinates customer requests for quotations. Requests requiring technical review are forwarded to Inquiry Engineering and/or Applications Engineering where customer requirements are translated into specific Okonite design terms. Potential customer conflicts are identified by Inquiry Engineering for resolution by Sales District personnel during contract negotiation.

QUALITY SYSTEM MANUAL

Upon receipt of an order, the Sales-Customer Service Representative is responsible for review for compliance with Okonite's quotation prior to sending order electronically to Quotations department.

Customer orders are processed by the Order Services Department where manufacturing instructions are developed. Discrepancies with customer requirements are forwarded to Sales for resolution with customer. Approved changes are recorded via order change notice by the Customer Service Representative.

Records of the contract negotiations and order reviews are maintained by the Quotations Department.

Customer purchase orders for delivery of cable to nuclear facilities are reviewed independently to ensure applicable requirements are acceptable.

8.2.4 Changes to requirements for products and services

Okonite ensures that when relevant documented information is amended, that the individuals/departments impacted are notified of the change per **P&PD MK-1 (Okonite Order Entry)**.

8.3 Design and development of products and services

8.3.1 General - The Okonite Company has established, implements, and maintains a design and development process to ensure the subsequent provision of our products and services.

8.3.1.1 The Okonite Company controls and verifies the design of the product in order to ensure specified requirements are met per **P&PD QA-10 (Design Control)**.

8.3.1.2 The Okonite Company controls and verifies the design and development activities, including defined responsibilities. Only Okonite staff or personnel with adequate resources are assigned design and development activities.

8.3.1.3 The Okonite Company defines, documents, and reviews organizational and technical interfaces.

8.3.1.4 Responsibility and Authority - The Vice President Engineering is responsible for development and issuance of management approved Product Line Specifications. These product standards, designed for compliance with Industry Codes/customer specifications are the foundation for Okonite design controls. Application Engineers provide design direction to inquiry Engineering/Quotations when required to satisfy customer non-standard requirements.

8.3.1.5 Quality Activity - Product Line Specifications are developed based on performance of prototype cable or material tests performed at Okonite laboratories, that meet or exceed Industry Codes/Standards. When required, validation is provided by independent agencies such as UL or CSA through the granting of the listing mark of that agency.

QUALITY SYSTEM MANUAL

For customer orders the customer specification is the design Input and the Inquiry Engineering Design Sheet prepared in response to customer specification becomes the design Output.

Design changes follow the same review procedure as initial designs.

8.3.2 Design and development planning - Okonite controls design and development planning as per **P&PD QA-10 (Design Control)**. See section 8.3.1

8.3.3 Design and development inputs - The Okonite Company identifies, documents, and reviews product design input requirements for adequacy and compliance with pertinent regulatory requirements. The Okonite Company resolves incomplete, ambiguous, or conflicting requirements and contact review activities prior to design review.

8.3.4 Design and development controls

8.3.4.1 The Okonite Company conducts formal documented reviews of design results at appropriate intervals and records of such reviews are maintained.

8.3.4.2 The Okonite Company performs design verification to ensure that the design output meets the design input requirements at appropriate stages of design and to ensure that design verification measures are documented.

8.3.4.3 The Okonite Company performs design validation to ensure the Product conforms to defined customer requirements.

8.3.5 Design and development outputs - The Okonite Company documents design output in terms of requirements that can be verified. At this stage, the design output reviews contain, at least, the following:

- How the design input requirements are met.
- References the acceptance criteria.
- Identifies crucial design characteristics related to safe and proper functioning of the product.
- Reviews of design output documents before release.

8.3.6 Design and development changes - The Okonite Company reviews, approves, and documents design changes by authorized personnel before implementation as per **P&PD QA-10 (Design Control)**.

8.4 Control of externally provided processes, products and services

8.4.1 General - The Okonite Company has procedures in place to ensure that externally provided processes, products, and services conform to established requirements.

8.4.2 Type and extent of control

8.4.2.1 The Okonite Company ensures that purchased materials and services meet established specifications per **P&PD P-2 (Okonite Purchasing System)**, **P&PD QA-3 (Calibration Service Purchase Orders)** and **P&PD R&E-1 (Technical Requirement Program)**.

QUALITY SYSTEM MANUAL

8.4.2.2 The Okonite Company evaluates and selects supplier on the basis of their ability to meet supplier requirements and the requirements imposed by this quality system per **P&PD P-1 (Supplier Rating System)** and **P&PD P-4 (Certified Supplier System)**.

Records are kept at the location performing the appropriate evaluation (Plant QC Labs, Research Materials Lab and Purchasing).

8.4.2.3 Responsibility and Authority - (Figure 2) The Executive Director - Procurement is responsible for ordering and release of materials from approved suppliers. Vice President - Research is responsible for selection of non-metallic materials and approval of their suppliers. The Vice President - Engineering is responsible for selection and approval of metal materials, purchased components, and management of contracted service providers. The Vice President - Facilities Engineering is responsible for selection and approval of equipment suppliers. Vice President - Manufacturing Engineering is responsible for determining packaging requirements and approval of packaging suppliers. Director - Quality Assurance is responsible for performance of Quality System Qualification audits and approval of Calibration and Safety Related Service Suppliers.

8.4.2.4 Quality Activity - Technical Requirements ensure the conformance of purchased materials to requirements. Manufacturing Standards ensure the conformance of purchased packaging to requirements. Production materials are purchased from approved suppliers. Components and equipment are purchased to meet designated need.

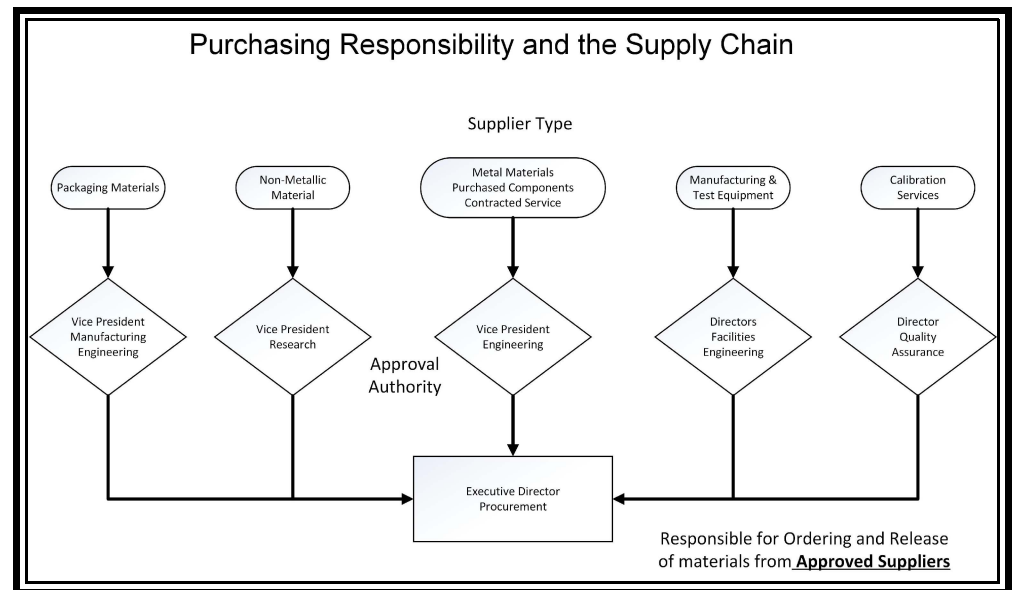


Figure 2

8.4.2.5 Supplier Certification Program - There are two types of material or service providers: a) approved; or b) certified.

Approved providers are selected on the basis of an initial material and/or service evaluation. The product or service supplied by this level is subject to incoming inspection and documentation review as listed in Technical Requirements prior to use, as per **P&PD R&E-1 (Technical Requirement Program)**.

QUALITY SYSTEM MANUAL

Certified suppliers have demonstrated the ability to meet specified criteria. Incoming products and services from certified suppliers are accepted for just-in-time production upon satisfactory review of documentation, as per **P&PD P-4 (Certified Supplier System)**. The official Certified Supplier Master List is maintained on the Okonite intranet as an attachment to P&PD P-4. All authorized personnel have access to this list.

Performance of critical suppliers is tracked on an ongoing basis and a master list is maintained of critical supplier status, as per **P&PD P-1 (Supplier Rating System)**.

Commercial Grade Dedication (CGD) shall be applied for suppliers providing calibration services that impact acceptance of Nuclear Safety Related cables. The Okonite Commercial Grade Dedication Program complies with the requirements of the NRC and NUPIC and is outlined in **P&PD QA-21 (Okonite Commercial Grade Dedication Program)**.

Purchasing of commercial calibration services are outlined by **P&PD QA-3 (Calibration Service Purchase Orders)** and by **Manufacturing Standard 8-1-142 (Local Purchase Order for Calibration Service Instructions)**.

8.4.3 Information for external providers

- 8.4.3.1 The Okonite Company purchasing documents describe the materials or services ordered, and the requirements for approval of materials and/or services. The Okonite Company documents the review and approval of purchase records prior to release as per **MS 6-25 (Incoming Inspection)**. Personnel performing this important quality activity are trained and documented as per **MS 8-1-148 (Quality Personnel Qualification)**.
- 8.4.3.2 Verification that purchased materials meet specified purchase requirements is performed per **MS 6-25 (Incoming Inspection)** and **P&PD P-4 (Certified Supplier System)**. All Incoming Inspection records are kept on file at the plants and are under the control of the Materials Inspector and/or QC Laboratory.
- 8.4.3.3 Should verification of purchased components be required at the supplier's premises, The Okonite Company will make prior arrangements with the supplier.

8.5 Production and service provision

8.5.1 Control of production and service provision - The Okonite Company plans and ensures production processes are carried out under controlled conditions per **MS 6-9 (Process Control)**. For example:

- 8.5.1.1 Production processes and equipment are properly monitored and controlled.
- 8.5.1.2 Production processes and equipment are properly approved and validated.
- 8.5.1.3 Manufacturing instructions and quality requirements are described in Cost & Routing documents and Quality Plans when required.

QUALITY SYSTEM MANUAL

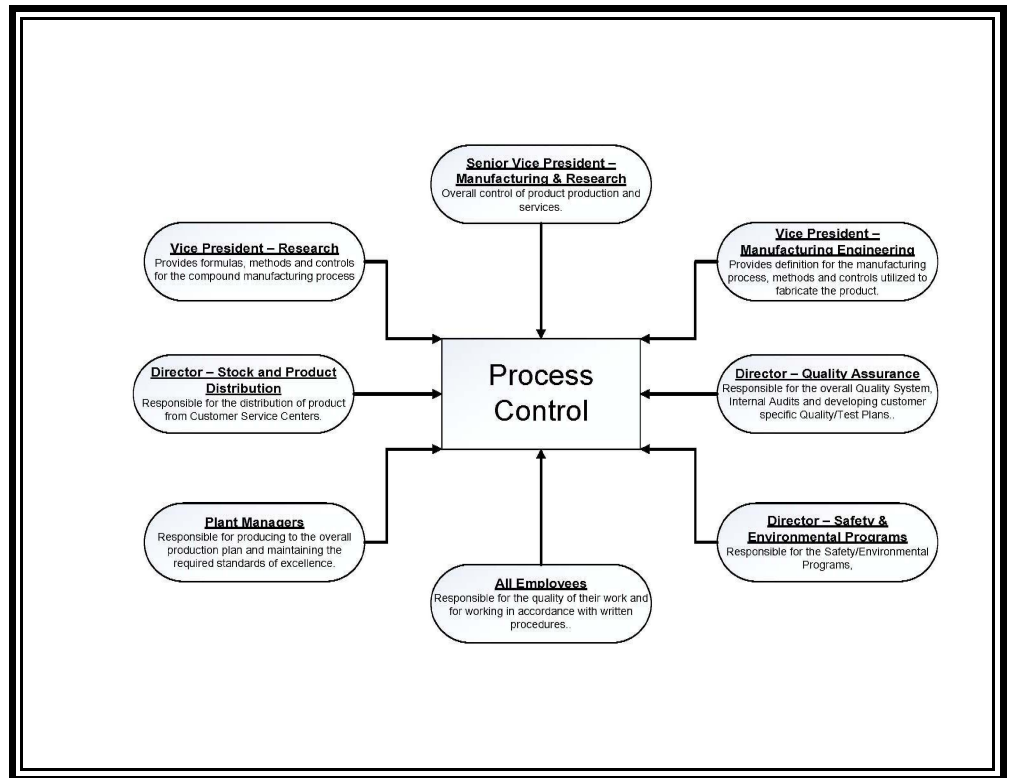


Figure 3

8.5.1.4 Responsibility and Authority - (Figure 3) The Vice President - Manufacturing Engineering & Research provides formulas, methods and controls for the Compound Manufacturing process. The Executive Vice - President Manufacturing & Research has overall responsibility for control of product production and services. The Vice President - Manufacturing Engineering provides definition for the manufacturing process, methods, and controls utilized to fabricate the product. Plant Managers are responsible for producing to the overall production plan and maintaining the required standards of excellence. Director - Stock & Product Distribution is responsible for the distribution of product from Customer Service Centers. The Director Safety & Environmental Programs is responsible for the Safety/Environmental Programs. Employees are responsible for the quality of their work and for working in accordance with written procedures.

8.5.1.5 Quality Activity - Production is scheduled and planned according to customer needs. Written instructions for the control of process operations are specified in Manufacturing Standards and Manufacturing Specifications and are under document control at each location. These contain necessary standards of workmanship, specifications for materials, manufacturing methods, critical process measurement points and measurement standards. Emphasis is placed upon prevention versus detection methods.

Production operations are performed by personnel who have met specific training and other qualifications. Work instructions are communicated to production

QUALITY SYSTEM MANUAL

personnel via the C&R. Equipment is selected and maintained to meet intended use. Production records are maintained to verify equipment is capable of producing to required standards.

Daily production reports detail work completed and downtime.

There are no special processes, as defined in 10CFR50 Appendix B, or ISO 9001:2015, employed in Okonite wire and cable manufacture.

Safety and Environmental Programs are monitored thru continuous improvement efforts towards achieving performance measurements.

8.5.1.6 The Okonite Company ensures it's products are properly identified per **MS 1-9 (Identification & Control of Materials, Parts & Components)** using the following controls:

- Responsibility and Authority - Production is responsible for ensuring that materials and documentation associated with customer orders are clearly marked for identification and traceability. Production personnel are responsible for maintaining production records, identification and traceability records.
- Quality Activity - Orders are identified with a unique Order Number consisting of the Okonite Location Number plus a unique Serial Number. This Order Number appears on internal documentation, and communication relating to the order, ensuring traceability to the customer and to the order.
- Raw Material or Technical Requirement numbers are assigned to purchased products. Order records include documentation for any specially purchased products.
- Records exist for identification and traceability activities for all insulated wire and cable products.

8.5.1.7 The Okonite Company ensures its manufacturing processes are documented per **MS 6-1-2 (Test, Inspection & Quality Documentation)** and are reviewed and approved prior to issue per **P&PD QA-5 (Document & Data Control)**.

8.5.1.8 The Okonite Company only uses products that have passed required inspection and tests and documents the products' conformance/nonconformance status per **MS 6-1-2 (Test, Inspection & Quality Documentation)**.

8.5.1.8.1 Responsibility and Authority - Receiving is responsible for ensuring that supplied products/services are identified. Production and Quality Control are responsible for that ensuring the inspection and test status identification of work in-process and final product is maintained.

8.5.1.8.2 Quality Activity - Supplied items, except those from certified suppliers, are identified until inspection procedures are carried out. Supplied items found to be nonconforming are tagged and segregated until dispositioned.

In-process product carries a tag indicating inspection/test status which is cumulatively updated at specified check points throughout the process. Each satisfactory inspection permits the product to

QUALITY SYSTEM MANUAL

advance to the next process step. Product found to be nonconforming at any point is segregated from the process until disposition is made, as per **MS 8-4 (Non-Conforming Materials, Parts or Components)**.

Finished product undergoes final inspection and approval. No finished product is released to customers until the final testing has been completed and cable has been transferred to a storage or shipping area by authorized persons. Nonconforming product is identified and visually segregated to prevent inadvertent release to the customer.

- 8.5.1.9 The Okonite Company ensures its products are handled, stored, packaged, preserved, and delivered per Manufacturing Standards, **Section 9 (Handling, Storage, Packaging, Preservation, and Delivery)**.
- 8.5.1.10 The Okonite Company ensures maintenance of manufacturing equipment is documented per **P&PD MF-9 (Equipment Maintenance and TPM Program)**.
- 8.5.1.11 The Okonite Company ensures its personnel training and qualification are properly documented as per **P&PD HR-1 (Okonite Training Program)**.
- 8.5.1.12 Product servicing is not applicable to The Okonite Company.
- 8.5.1.13 Validation of Processes for Production and Service provision - The Okonite Company does not validate its processes since it is able to verify its products 100%. Product is validated during production as per **MS 6-9 (Process Control)** and **MS 6-9-1 (Validation Requirements for Insulation and Jackets)**. All product is tested using the procedures outlined in Section 6 of Manufacturing Standards.
- 8.5.2 **Identification and traceability** - The Okonite Company identifies products from receipt of components, through production, and to delivery to the customer per **MS 1-9 (Identification & Control of Materials, Parts & Components)**. See section 8.5.1.6.
- 8.5.3 **Property belonging to customers or external providers** - Not applicable to The Okonite Company.
- 8.5.4 **Preservation**
 - 8.5.4.1 The Okonite Company handles, stores, packages, preserves, and delivers products per Manufacturing Standards, Section 9 (Handling, Storage, Packaging, Preservation, and Delivery).
 - 8.5.4.2 Responsibility and Authority - Production is responsible for the safety and protection of products within the process. Shipping/Receiving and Service Center Management are responsible for preserving quality of received/stored materials and for the safe packaging and delivery of the finished product. Traffic is responsible for determining the method of preserving product quality during transit.

QUALITY SYSTEM MANUAL

- 8.5.4.3 Quality Activity - Procedures specify the means for the handling, storage, packaging, and delivery of materials, and manufactured products.

Procedures are implemented to prevent damage or other loss to materials and products by movement, storage or nefarious means while on facility's site. Access to stored products is limited to authorized persons. Storage areas are regularly assessed to minimize the risk of damage to stored items. Inventories are regularly conducted to verify counts.

When packaging/delivery instructions are part of customer specification, these activities are carried out per those instructions. Packaging/delivery methods, when not specified follow industry standards and good commercial practices to ensure that product is delivered in conformance with requirements.

- 8.5.5 Post-delivery activities** - The Okonite Company has procedures in place to meet the requirements for post-delivery activity associated with our products. Programs are described in Section 8.5.1.
- 8.5.6 Control of changes** - The Okonite Company has procedures in place for the control documents and procedures per **P&PD QA-5 (Document & Data Control)**. Changed documents indicate the reason for change. When Policy & Procedure documents are formally reviewed as part of the Management Review Process, change is controlled per **MS 8-1-143 (Quality System Document Review Form)**.

- 8.6 Release of products and services** - The Okonite Company has planned procedures to verify that all product requirements have been met before release. See Section 8.5.1.8.2.

8.6.1 Monitoring and Measurement of Product

- 8.6.1.1 The Okonite Company inspects and tests products to verify their specified requirements are met per **MS 6-1-2 (Test, Inspection & Quality Documentation)**.
- 8.6.1.2 Receiving and Inspection Testing - The Okonite Company ensures that incoming components are not used or processed until they have been inspected as per **MS 6-25 (Incoming Inspection)**.
- 8.6.1.3 In-Process Inspection and Testing - The Okonite Company inspects and tests in-process materials as per appropriate per **MS 6-1-2 (Test, Inspection & Quality Documentation)**.
- 8.6.1.4 Final Inspection and Testing - The Okonite Company conducts finished Product Inspection and tests as per per **MS 6-1-2 (Test, Inspection & Quality Documentation)**.
- 8.6.1.5 Inspection and Test Records - The Okonite Company maintains documentation of product inspection and testing, including the person responsible for releasing the product(s) as per **MS 6-1-2 (Test, Inspection & Quality Documentation)** and **MS 1-21 (Certified Test Reports)**.
- 8.6.1.6 Responsibility and Authority - Quality Control has overall responsibility for ensuring that receiving, in-process, and final inspection of products is performed. Receiving is

QUALITY SYSTEM MANUAL

responsible for receiving, verification and safe handling of all items. Production Operators carry out in-process inspection and testing as specified.

- 8.6.1.7 Quality Activity - Incoming materials are inspected for conformance to requirements. Accepted products are tagged, as required, and released to production for use. Nonconforming items are tagged with the appropriate notice and held in a designated storage area. Adequate records shall be maintained of these activities.

In-process inspections and tests are carried out to ensure that production meets defined requirements at specified process points. Results of inspection and test activities are recorded and reviewed. Supervision and Quality Control perform independent validation of inspections and tests by production Operators. Nonconforming product is segregated by visual identification.

Final product is 100% inspected and tested by quality control personnel according to approved procedure. Nonconforming or questionable product is segregated by visual identification. Adequate records of cables conforming to purchase requirements are maintained for cable inspections and test activities.

Nuclear cables manufactured to 10CFR50 Appendix B (or equivalent) require final acceptance inspection and testing performed by independent Qualified personnel, other than employees who performed the production activity being inspected.

8.7 Control of nonconforming product

- 8.7.1 The Okonite Company ensures product or components that do not conform to specified requirements are prevented from unintended use or installation per **MS 8-4 (Non-Conforming Material, Parts or Components)**, and **P&PD QA-8 (Hold Procedure)**. Documentation of product nonconformance includes identification, evaluation, and disposition of the nonconforming product.
- 8.7.2 Responsibility and Authority - Production and Quality Control identify, review and dispose of nonconforming product/services. The Manager Manufacturing Engineering is responsible for review and disposition of such product. The Director Quality Assurance/Corporate Management Representative is responsible for implementation of 10 CFR Part 21. **Compliance with 10 CFR Part 21 is described in P&PD QA-7 (Compliance to 10CFR21).**
- 8.7.3 Quality Activity - Procedures exist for preventing inadvertent use of nonconforming products/services. The primary procedures used are:
- 8.7.3.1 MS 8-1-105 (Compound Hold Notification)
 - 8.7.3.2 MS 8-1-110 (Material Hold Notification)
 - 8.7.3.3 MS 8-1-112 (Corporate Hold Notification)
 - 8.7.3.4 MS 8-1-214 (Deviation Disposition Request)
 - 8.7.3.5 MS 8-1-220 (Order Deficiency Report)
 - 8.7.3.6 MS 8-1-240 (Request for Disposition)
 - 8.7.3.7 MS 8-2-156 (Hold Tag)
 - 8.7.3.8 MS 8-2-157 (Disposition Tag)
 - 8.7.3.9 MS 8-2-252 (Electrical Failure Tag)
 - 8.7.3.10 MS 8-4 (Non-Conforming Materials, Parts or Components)

Nonconforming products/services are clearly marked and segregated.

QUALITY SYSTEM MANUAL

The procedure for nonconforming production includes determination of the cause and implementation of corrective actions. These activities and their effectiveness are reviewed and discussed in regular management review meetings.

8.7.4 The Okonite Company may perform the following for nonconforming products or components:

- Rework nonconforming products or components to meet applicable specifications.
- Accept nonconforming product (with or without repair) if its suitability is not significantly diminished.
- Evaluate nonconforming product or components for alternate applications.
- Reject or scrap nonconforming products or components.

8.7.5 The Okonite Company reinspects all reworked products and components to ensure they meet established specifications.

8.7.6 Documentation is retained that contains the following:

- Describes the nonconformity.
- Describes the action taken.
- Describes any concessions obtained.
- Identifies the authority deciding the action in respect of the nonconformity.

9.0 Performance evaluation

9.1 Monitoring, measurement, analysis and evaluation

9.1.1 General - The Okonite Company plans and implements the measurement, analysis and improvement operations to verify whether quality activities comply with planned arrangements and to determine the effectiveness of the quality system per:

- **P&PD QA-2 (Customer Non-Conformance Response Procedure).**
- **P&PD QA-16 (Okonite Quality Audits).**

The Okonite Company monitors and measures the performance and determines the effectiveness of the quality management system per **P&PD QA-16 (Okonite Quality Audits)**. All audit reports and activity are reviewed by the Corporate Management Review Team with an overall assessment performed at the end of the year.

9.1.2 Customer Satisfaction - The Okonite Company determines, monitors, and measures customer satisfaction by various methods. The following are some of the methods by which customer satisfaction is determined:

- ! Both solicited and unsolicited customer satisfaction and feedback.
- ! Awards and recognitions.
- ! Product returns.
- ! Warranty claims.
- ! Repeat customers.
- ! Market share.
- ! Customer satisfaction reports from District Offices.

9.1.2.1 Customer Satisfaction trend analysis are prepared and reported to the Management Review Team during meetings.

QUALITY SYSTEM MANUAL

9.1.3 Analysis and evaluation

- 9.1.3.1 The Okonite Company utilizes statistical techniques for establishing, controlling, and verifying process capabilities and product characteristics. The statistical tools utilized vary depending on the process involved or Okonite and customer requirements. Validation of New or Major Modified Equipment Installations is addressed in **Manufacturing Standard 8-1-170 (New and Major Modified Equipment Installation)**.
- 9.1.3.2 The implementation of production statistical programs is the responsibility of the Executive Vice President of Manufacturing and Research and the Vice President of Manufacturing Engineering and Research. Unless otherwise required by official policy or corporate directive, all statistical tools are to be used as deemed appropriate by the engineers at the local plants.
- 9.1.3.3 Data from the following programs are analyzed and used to evaluate:
- Conformity of products and services (P&PD QA-2)
 - The degree of customer satisfaction (P&PD QA-13)
 - The performance and effectiveness of the Quality Management System (P&PD QA-19)
 - If planning has been implemented effectively (P&PD QA-13)
 - The effectiveness of actions taken to address risks and opportunities (P&PD QA-13)
 - The performance of external suppliers (P&PD P-1)
 - The need for improvements to the Quality Management System (P&PD QA-13)

9.2 Internal Audit

- 9.2.1 Internal audits are administered by Quality Assurance as an assessment tool with established procedures on a scheduled basis. The objective of performing audits and communicating audit results is to provide Okonite management with a measurement of the effectiveness of the Okonite Quality System. per **P&PD QA-16 (Okonite Quality Audits)**.
- 9.2.2 Responsibility and Authority - The Corporate Management Representative is responsible for the internal quality audit program. Qualified auditors are given audit responsibilities in areas over which they have no direct responsibility. The Corporate Management Review Team reviews audit reports. Location Managers and Department heads are responsible for implementing corrective actions.
- 9.2.3 Quality Activity - Audits are scheduled annually or as required. Audit records and corrective actions are maintained. An annual audit schedule is prepared by the Corporate Management Representative and distributed to all relevant locations and individuals.
- 9.2.4 The results of the audits are shared with The Okonite Company Senior Management and personnel responsible for the area audited. The Okonite Company takes timely corrective action on the deficiencies found during the audit. Follow-up audits, if necessary, record the implementation and effectiveness of the corrective action taken.
- 9.2.5 Okonite Lead Auditors, Auditors and Technical Specialists are used to perform Internal Okonite audits and external supplier audits. Personnel are trained and qualified as per **P&PD QA-4 (Quality Assurance Training/Qualification)**.

QUALITY SYSTEM MANUAL

- 9.2.6 Training and documentation of Okonite Lead Auditors, Auditors and Technical Specialists is the responsibility of the Director - Quality Assurance. All training records are maintained as per **P&PD QA-12 (Record Retention Procedure)**.

9.3 Management Review

- 9.3.1 General** - The Okonite Company examines the overall state of the Quality Management System periodically as defined in **P&PD QA-13 (Management Review Responsibility)**.

- 9.3.2 Management Review inputs** - Management reviews and analyzes at minimum the following agenda items to ensure its continuing suitability, adequacy and effectiveness: As per P&PD QA-13, there are slightly different agenda for corporate and plant meetings.

1. Performance to Business Goals.
 2. Performance to Quality System Goals
 3. Safety & Environmental Program.
 4. Customer Satisfaction, feedback, trends and issues.
 5. Status of Open Action Items from previous meetings.
 6. Audit Activities (ie. customer, internal, supplier, Process Audits. Promote prompt completion).
 7. Opportunities for improvement.
 8. Effectiveness of actions taken to address risk and opportunities
 9. CAPA Status Report.
 10. Changes in external and internal issues
 11. Adequacy of resources
 12. New Issues.
 13. Performance of external suppliers*
 14. Calibration performance*
 15. Compliance to Quality Policy*
- * (Once a year)

- 9.3.3 Management review output** - After each Management Review Meeting, meeting minutes are issued which include all decisions and actions regarding:

- Improvement of the effectiveness of the quality management system and its process.
- Improvement of product and services related to customer requirements.
- Resource needs.

Current meeting minutes are issued to all relevant parties and a copy is made available for all employees to review. Meeting minutes are a quality record and retained per **P&PD QA-12 (Record Retention Procedure)**.

10.0 Improvement

- 10.1 General** - The Okonite Company continuously improves its operations as per **P&PD QA-15 (Quality Policy)**. Through the use of Management Review Teams at the Corporate and Plant levels, continuous improvement is monitored and reported as per **P&PD QA-13 (Management Review Responsibility)**.

- 10.1.1 Each year, the Senior Management (President, Manufacturing, Research, Quality Assurance, Sales/Marketing, Operations, Engineering, as needed) determines Goals and Objectives for improving The Okonite Company operations. Performance to Manufacturing Goals are outlined in **P&PD MF-13 (Manufacturing Goals Program)**.

QUALITY SYSTEM MANUAL

- 10.1.2 The Okonite Company encourages personnel at all levels to provide ideas for improving products, processes, systems, productivity, and the work environment per **MS 8-1-185 (Potential Improvement Opportunity)**.
- 10.1.3 The Okonite Company works to improve its products and processes per **P&PD QA-10 (Design Control)** and always looks to develop new products. When inputs are received from external or internal sources, the New Product Development Committee reviews the inputs and determines risks.
- 10.1.4 As part of Okonite's commitment to continuous improvement, Preventive Actions are discussed at Management Review Meetings to prevent undesired effects as per **Manufacturing Standard 8-1-206 (Preventive Action Log)**.

10.2 Nonconformity and corrective action

- 10.2.1 The Okonite Company ensures product or components that do not conform to specified requirements are prevented from unintended use or installation per **MS 8-4 (Non-Conforming Material, Parts or Components)**, and **P&PD QA-8 (Hold Procedure)**. Documentation of product nonconformance includes identification, evaluation, and disposition of the nonconforming product.
- 10.2.2 Responsibility and Authority - Production and Quality Control identify, review and dispose of nonconforming product/services. The Manager Manufacturing Engineering is responsible for review and disposition of such product. The Director Quality Assurance/Corporate Management Representative is responsible for implementation of 10 CFR Part 21. **Compliance with 10 CFR Part 21 is described in P&PD QA-7 (Compliance to 10CFR21)**.
- 10.2.3 Quality Activity - Procedures exist for preventing inadvertent use of nonconforming products/services. The primary procedures used are:
 - MS 8-1-105 (Compound Hold Notification)
 - MS 8-1-110 (Material Hold Notification)
 - MS 8-1-112 (Corporate Hold Notification)
 - MS 8-1-141 (Quality System Nonconformance)
 - MS 8-1-214 (Deviation Disposition Request)
 - MS 8-1-220 (Order Deficiency Report)
 - MS 8-1-240 (Request for Disposition)
 - MS 8-2-156 (Hold Tag)
 - MS 8-2-157 (Disposition Tag)
 - MS 8-2-252 (Electrical Failure Tag)
 - MS 8-4 (Non-Conforming Materials, Parts or Components)

Nonconforming products/services are clearly marked and segregated.

The procedure for nonconforming production includes determination of the cause and implementation of corrective actions. These activities and their effectiveness are reviewed and discussed in regular management review meetings.

QUALITY SYSTEM MANUAL

10.2.4 The Okonite Company may perform the following for nonconforming products or components:

- Rework nonconforming products or components to meet applicable specifications.
- Accept nonconforming product (with or without repair) if its suitability is not significantly diminished.
- Evaluate nonconforming product or components for alternate applications.
- Reject or scrap nonconforming products or components.

10.2.5 The Okonite Company reinspects all reworked products and components to ensure they meet established specifications.

10.2.6 Corrective Action - The Okonite Company maintains documented procedures for implementing effective corrective and preventive action per **P&PD QA-9 (Corrective and Preventive Action Program)**, **P&PD QA-2 (Customer Non-Conformance Response Procedure)** and **MS 8-1-141 (Quality System Non-Conformance)**. The Okonite Company corrective action procedures include the following:

- Effective handling of customer complaints and reports of product nonconformity.
- Investigating the cause of nonconformity's relating to products, processes, and the quality system.
- Determining the corrective action needed to eliminate the cause of nonconformity.
- Applying controls to ensure that corrective action is taken and that it is applied effectively

Responsibility and Authority - Location / Division heads are responsible for implementing corrective and preventive actions. The Management Representative is responsible for the review of these activities.

10.3 Continual Improvement - The Okonite Company works to continually improve the suitability, adequacy and effectiveness of the Quality Management System. See Sections 6.1 and 10.1.

10.3.1 Should a recall of The Okonite Company products be appropriate, **P&PD QA-2 (Customer Non-Conformance Response Procedure)** is followed for commercial products and **P&PD QA-7 (Compliance to 10CFR21)** for nuclear products.

QUALITY SYSTEM MANUAL

Appendix A

Conversion Matrix (10CFR50 Appendix B, NQA-1-1994 to Okonite QSM Elements)

Table below represents Traceability Matrix relationship between 10 CFR 50 Appendix B "Quality Assurance Criteria for Nuclear Power Plants", NQA-1-1994 "Quality Assurance Requirements for Nuclear Applications and Okonite QS Manual (ISO 9001:2015).

10 CFR Appendix B Section	ANSI/ASME NQA-1-1994 Basic Section	Okonite Quality System Manual Section
I Organization	1 Organization	5.0 Leadership 5.1 Leadership and Commitment
II Quality Assurance Program	2 Quality Assurance Program	4.0 Context of the Organization 4.4 QMS and its processes
III Design Control	3 Design Control	8.3 Design and development of products and services
IV Procurement Document Control	4 Procurement Document Control	8.4 Control of externally provided processes, products and services
V Instructions, Procedures, Drawings	5 Instructions, Procedures, Drawings	8.2.3 Review of the requirements for products and services 8.2.4 Changes to requirements for products and services
VI Document Control	6 Document Control	7.5.2 Creating and updating 7.5.3 Control of documented information
VII Control of Purchased Material, Equipment & Services	7 Control of Purchased Material, Equipment & Services	8.4 Control of externally provided processes, products and services
VIII Identification & Control of Materials, Parts & Components	8 Identification & Control of Items	8.5.2 Identification and traceability
IX Control of Special Processes [Not Applicable]	9 Control of Processes	8.5 Production and service provision
X Inspection	10 Inspection	8.6 Release of products and services
XI Test Control	11 Test Control	8.6 Release of products and services
XII Control of Measuring & Test Equipment	12 Control of Measuring & Test Equipment	7.1.5 Monitoring and measuring resources 7.1.5.2 Measurement traceability
XIII Handling, Storage and Shipping	13 Handling, Storage and Shipping	8.5.4 Preservation
XIV Inspection, Test and Operating Status	14 Inspection, Test and Operating Status	8.5.1 Control of production and service provision
XV Control of Nonconforming Materials, Parts or Components	15 Control of Nonconforming Items	8.7 Control of nonconforming outputs 10.2 Nonconformity and corrective action
XVI Corrective Action	16 Corrective Action	10.2 Nonconformity and corrective action
XVII Quality Assurance Records	17 Quality Assurance Records	7.5.3 Control of documented information
XVIII Audits	18 Audits	9.2 Internal audit

QUALITY SYSTEM MANUAL

Appendix B

Conversion Matrix (AAR M-1003 to Okonite QSM Elements)

Table below represents Traceability Matrix relationship between AAR M-1003 and the Okonite Quality System Manual (ISO 9001:2015).

AAR M-1003 (Revision 2014)		Corresponding Okonite QSM (ISO 9001:2015)	
Element	Description	QSM Section	Description
2.1	Objective of Quality Assurance Program	5.1	Leadership and Commitment
2.2	Applicability and Scope	1.0	Scope
2.3	QA Program & Manual Requirements	4.3	Quality System Manual
2.4	Management Responsibility	5.1	Leadership and Commitment
2.5	Production, Inspection & Test Planning	4.4	Quality management system and its processes
2.6	Corrective Action Preventive Action	10.2 6.1	Nonconformity and corrective action Actions to address risks and opportunities
2.7	Document Control	7.5.3	Control of documented information
2.8	Measuring and Test Equipment	7.1.5 7.1.5.2	Monitoring and measuring resources Measurement traceability
2.9	Purchasing	8.4	Control of externally provided processes, products and services
2.10	Incoming Inspection	8.6	Release of products and services
2.11	In-Process Inspection	8.5.1	Control of production and service provision
2.12	Final Inspection	8.6	Release of products and services
2.13	Inspection Status	8.5.1	Control of production and service provision
2.14	Identification and Traceability	8.5.2	Identification and traceability
2.15	Process Control	8.5	Production and service provision
2.16	Presentation, Packaging and Shipping	8.5.4	Preservation
2.17	Quality Records	7.5.3	Control of documented information
2.18	Nonconformance Control	8.7 10.2	Control of nonconforming outputs Nonconformity and corrective action
2.19	Quality Program Review and Manual Revision	9.3	Management review
2.20	Process Capability & Statistical Control	9.1 9.1.3	Monitoring, measurement, analysis and evaluation Analysis and evaluation
2.21	Internal Quality Audits	9.2	Internal audit
2.22	Training	7.2	Competence
2.23	Contract Review	8.2.3	Review of the requirements for products and services
2.24	Design Control	8.3	Design and development of products and services

QUALITY SYSTEM MANUAL

Appendix C

Okonite Quality Policy



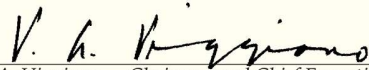
THE OKONITE COMPANY

QUALITY POLICY

Since 1878 The Okonite Company's focus has been to strengthen our position as the premier manufacturer of high quality electrical cable.

To attain this goal, employees shall support the commitments of our Quality System including:

- *Continuously improving our products and processes*
 - *Meeting or exceeding customer requirements*
- *Applying prevention rather than detection techniques*
 - *Providing a safe work place*
 - *Minimizing waste*
 - *Preventing pollution*
 - *Maintaining competitiveness*



Victor A. Viggiano — Chairman and Chief Executive Officer

**OKONITE'S
CORNERSTONE
SINCE 1878**



QUALITY SYSTEM MANUAL

Appendix D

Quality Improvement Statement



QUALITY SYSTEM MANUAL

Appendix E

Interested Parties

ISO 9001:2015 (4.2) - Due to their effect or potential effect on Okonite's ability to consistently provide products and services that meet customer and applicable statutory and regulatory requirements, the following interested parties are relevant to the Okonite Quality Management System:

Interested Party	Requirements	How Controlled / Monitored
Industry Standards (AEIC, ICEA, NEMA, CSA, etc)	Cable Requirements	Engineering, MS 1-3
NRC, NUPIC	Nuclear Cable - Class 1E	QA, QSM, Internal Audits
AAR	Railroad Cable - Class 1	QA, QSM, 3 rd Party Audits
ABS	Shipboard Cable Qualification	Engineering, 3 rd Party Audits
Customers (Commercial)	ISO 9001:2015	QA, Internal & 3 rd Party Audits
Vendors	TR's	Research, P&PD R&E-1
Calibration Suppliers	Nuclear & Commercial	QA, P&PD QA-21, QA-3