BTS / M.W. CRIPWELL LTD.

Policy Manual

POLICY MANUAL
BTS / M.W. CRIPWELL LTD.

INDEX

POLICY MANUAL
BTS / M.W. CRIPWELL LTD.

F O R E W O R D

BTS/M .W.CRIPWELL Ltd was established in 1941, under company Registration number: 1207642.

The Company's reputation has been built on a first class service offered to its customers through the installation of quality equipment, attention to detail and after sales care.

BTS is a branch of M.W.Cripwell electrical contractors, and we specialize in Fire Design, fire installation works, Supply and commission work, Maintenance of fire alarm systems on large and smaller commercial, industrial buildings.

Fire Alarm systems are installed on an "Install supply and commission" or "Supply and commission" only basis, as an outright sale. Equipment is chosen for its ease of use to minimise the possibility of false alarms due to user error, and also is based on our customer's requirements for any particular site, whether it be conventional or loop powered install. To further this end, clear and comprehensive customer training is also seen as essential, particularly for monitored systems, as well as a comprehensive O&M manual as required, either hard copy, electronic copy, or both dependant on the customer's requirements.

POLICY MANUAL
BTS / M.W. CRIPWELL LTD.

THIS COPY IS CONTROLLED/UNCONTROLLED*
(DELETE AS APPROPRIATE)

COPY NUMBER ……1…….

ISSUE NUMBER ……1…….

ISSUED TO ……..……..…….

AUTHORISED BY …….

2. This manual may not be reproduced in whole, or in part, or released to a third party without the written consent of BTS/MW Cripwell Ltd

---

Notes

1. 'Controlled' in this context indicates that Manuals are issued to individuals such that any amendment subsequent to issue can be forwarded to the recipient for up-dating. For this reason, a list of recipients and manuals allocated to them will be held by the issuing authority.

POLICY MANUAL
BTS / M.W. CRIPWELL LTD.

BUSINESS STRATEGY AND QUALITY POLICY

Our strategy is to undertake the design, installation and maintenance of Fire Detection & Alarm Systems in accordance with best professional practice and at a reasonable financial return.

The key to success in our competitive environment is to continually strive to increase customer satisfaction and to this end: -

- The company is a Recognised NSI Gold/BAFE installer and therefore all employees are committed to meeting the regulatory, legal and environmental expectations of the industry that have been agreed by insurers, police, professional institutions and relevant Trade Associations.
- The company provides an environment to encourage employees at all levels to direct their abilities to the benefit of the organisation and their own personal satisfaction; such a policy attracts the best people in our field.
- Management keep abreast of technological changes and innovations that may be of benefit to existing markets and provide a direction to new business areas.
- Measures are in place in essential core areas of the business, which indicate how well the business is performing. This includes not only basic business measures of cash flow, sales, capital expenditure etc but also complaint resolution criteria, false alarm statistics and contractual obligations such as routine maintenance achievement and call out response times. Additionally, data is gathered to determine success in continually satisfying the expectations of the customer.

Dissatisfied customers constitute business risk. International Standard ISO 9001:2008 provides a process for satisfying customers. To this end the company has developed and implemented a quality management system that meets the requirements of:

- International Standard ISO 9001:2008
- NSI Quality Schedule FSQS121 'The Design, Installation, Commission & Handover and Maintenance of Fire Detection and Alarm Systems'
- BAFE-SP203 Fire Protection Industry Scheme 'The Design, Installation, Commissioning and Maintenance of Fire Detection, & Alarm Systems' (all 4 modules)
- Appropriate Industry Standards eg BS5839, PD6531, BS6266
- Compliance with applicable legal requirements

giving confidence not only that installations meet the requirements of the contract and specifications but also that our business is committed to continual improvements.

Signed: ……

S. Locke

Managing Director

POLICY MANUAL
BTS / M.W. CRIPWELL LTD.

THE POLICY MANUAL

This Policy Manual defines the management policy, organisation and business processes of BTS/MW Cripwell Ltd. that have been established to meet the requirements set out in our Business Strategy and Quality Policy

It therefore focuses on four cornerstones of control:-

- Management responsibility and commitment
- Resource management – human resource, premises, equipment, transport
- Product realisation, i.e. the processes relating to the understanding development and delivery of the contract requirements to the customer
- Measurement analysis and improvement of the business processes based on objective measurements.

Availability of the Manual and associated Quality Documents within the organisation provides a means of communicating information on these matters to employees. A record of controlled copies is maintained on the Distribution Register.

The Policy Manual should be read in conjunction with operational processes and procedures identified within the Manual.

The Policy Manual is part of a managed and controlled documentation system as follows: -

Quality Policy (ISO Clauses 4-8)
Process Maps
Operation Procedures
Work Instructions (containing detailed instructions in specific areas)
Forms

POLICY MANUAL
BTS / M.W. CRIPWELL LTD.

(FIRST SECTION)

THE QUALITY MANAGEMENT SYSTEM

POLICY MANUAL
BTS / M.W. CRIPWELL LTD.

4.0 THE QUALITY MANAGEMENT SYSTEM

4.1 General Requirements

4.1.1 A quality management system has been established and implemented which:

a) Has identified the business processes and procedures for the quality management system and their application throughout the organisation.
b) Provides for the effective sequence and interaction of these processes and procedures.
c) Identifies the criteria and methods to ensure their effectiveness, operation and control.
d) Ensures the availability of resources and information necessary to support their operation and monitoring.
e) Provides for monitoring, measurement and control of all the processes and procedures, by means of direct measurement, review and analysis and internal audit.
f) Enables the action necessary to achieve the planned results and continued improvement of these business processes and procedures to be implemented

4.1.2 The inter-relationships between the business processes, procedures and key business steps are shown in the appendices to this section

4.1.3 **Exclusions:** BTS/MW Cripwell Ltd configure a system to suit specific customer and regulatory requirements, this is considered to be application design rather than development design. Therefore the development aspects of paragraph 7.3 of BS EN ISO 9001 are excluded.

4.2 Documentation Requirements

4.2.1 General

Documented Procedures are maintained to control all documents and data.

The following examples of documentation are utilised by the Company and are controlled so that incorrect issue or revisions of such documents cannot be used in a way as to jeopardise the effectiveness of our work. These include, but are not restricted to:

- NSI Codes of Practice, Technical Directives and Technical Memoranda
- British and European Standard Specifications, e.g. BS5839 etc.
- NSI Quality Schedule FSQS 121
- BAFE Scheme – SP203
- The Policy Manual, Process Maps, Quality Procedures and Work/Engineer Instructions
- Company Forms
- Agency Policies for local working area eg councils, Fire Brigade etc
- Customer Contracts
- Records required by ISO 9001, see Clause 4.2.4

4.2.2 Quality Policy

A Quality Policy has been established and is maintained and includes:

a) The scope of the quality management system
b) Reference to the documented processes and procedures required by the International Standard ISO 9001, FSQS121 and SP203
c) A description of the interaction between the business processes

4.2.3 Control of Documents

Documentation generated by the company is controlled through appropriate review and authorisation prior to issue and then distributed so that incorrect issues or revisions of such documents are not used. Similar concepts of control apply to documents and data stored on other media such as floppy disks, tapes, etc. Secure back up arrangements are in place including secure holdings of back up records.

Document changes are made on a controlled basis
Ref: The Documented Procedure for Documentation Control is QP 01-01
The Documented Procedure for Data Control is QP 01-02

4.2.4 Control of Quality Records

A documented Procedure has been established which defines the controls needed for the identification, storage, protection, retrieval, retention time and disposition of the quality records developed to provide evidence of conformance and effective operation of the Quality Management System.

These include: -

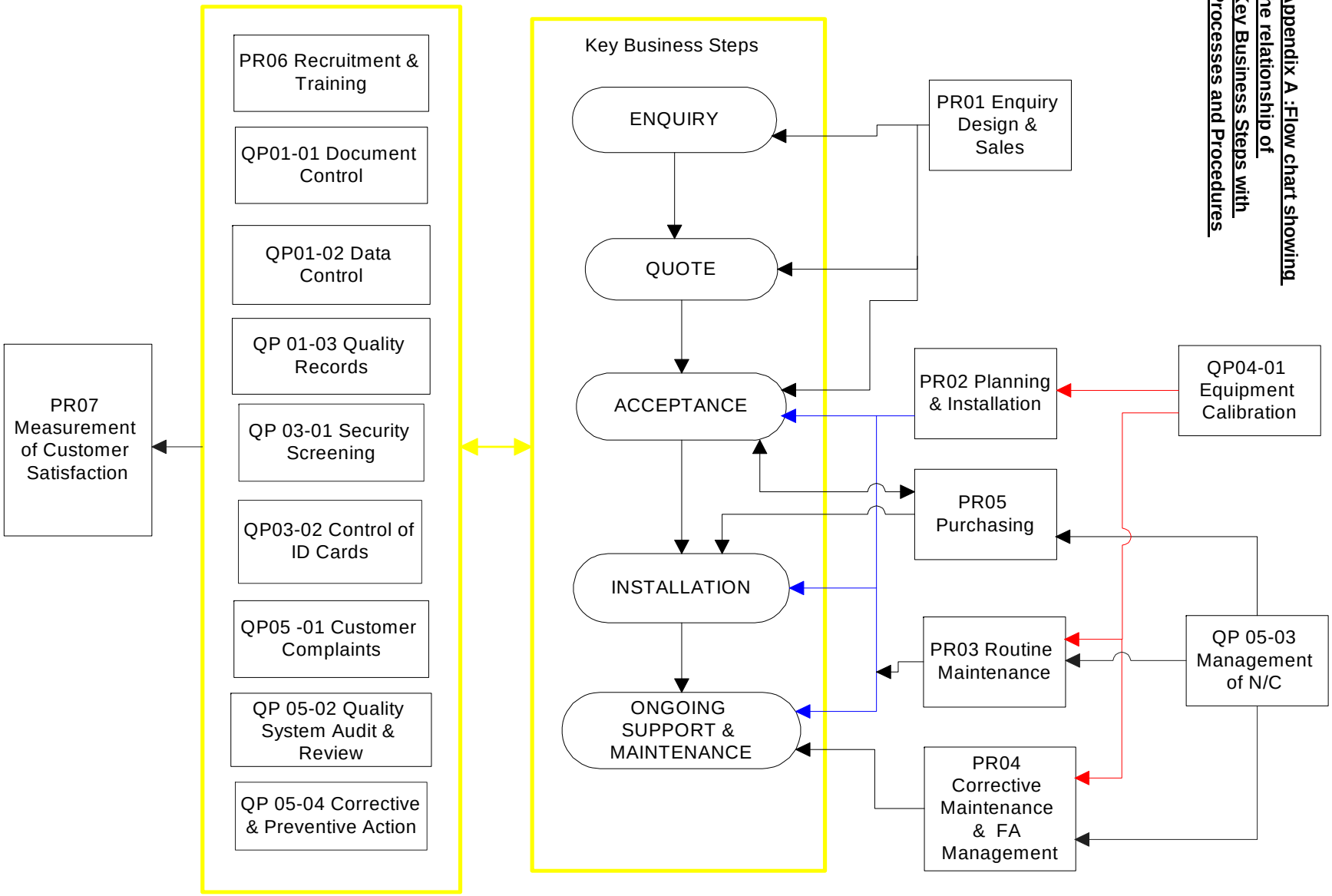
- Training records
- Security Screening Records
- False Alarm data
- Complaints correspondence
- Installation Records
- Management Review and Internal Audit Records
- Non Conformance data
- Waste disposal information, suppliers etc, (compliance with WEEE regulations etc)
- Purchasing and Supplier information

Contract records (including survey, design, quotations, amendments, system records, commissioning and handover documents and also, as appropriate, maintenance, disconnection, historical and false alarm records) are held for periods in accordance with the applicable standards, codes of practice etc.

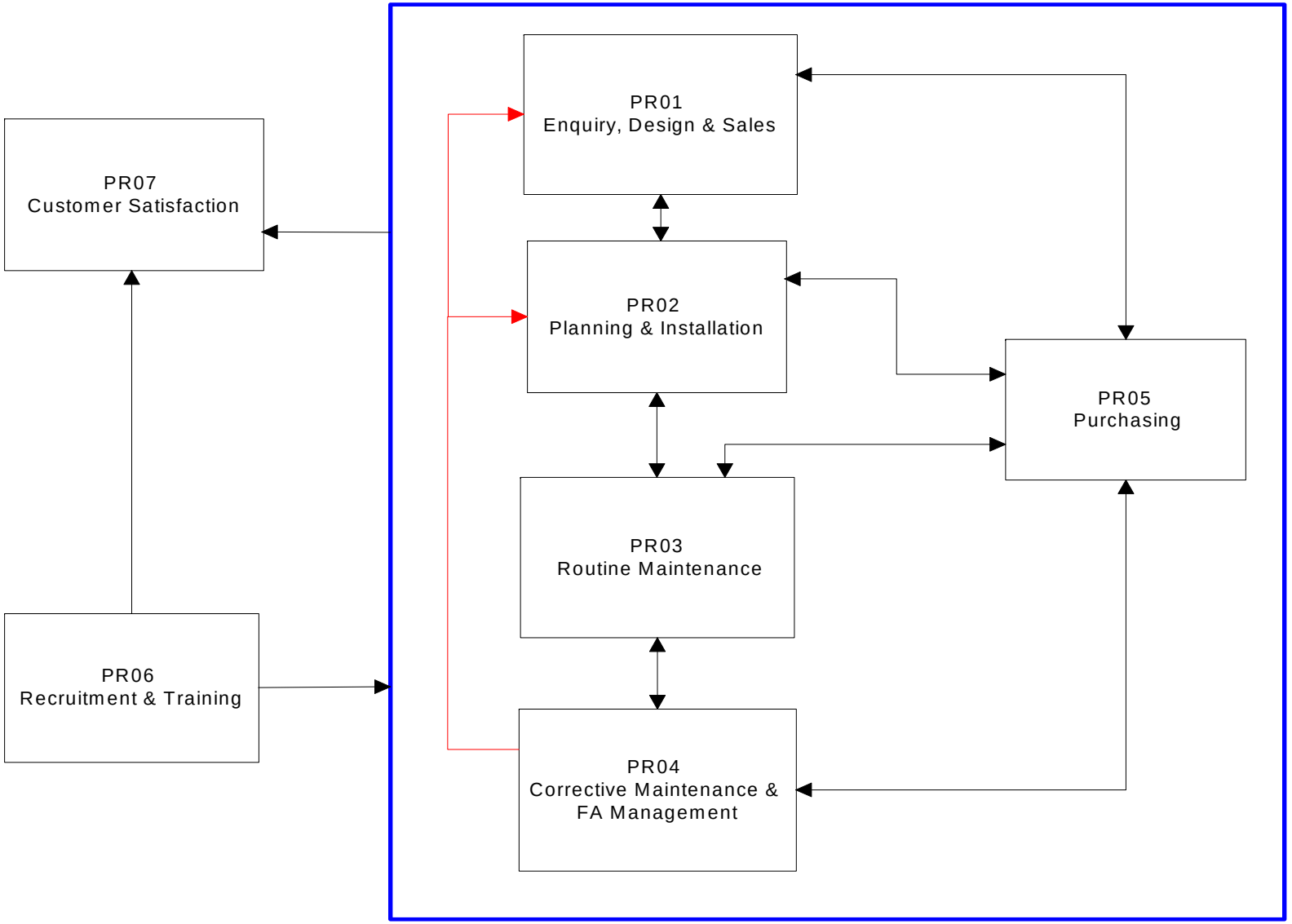
Ref: The Documented Procedure for the control of Quality Records is QP 01-03

POLICY MANUAL
BTS / M.W. CRIPWELL LTD.

Appendix A :Flow chart showing the relationship of Key Business Steps with Processes and Procedures



POLICY MANUAL
BTS / M.W. CRIPWELL LTD.



Appendix B: Flow Chart to show the relationship between Processes

POLICY MANUAL
BTS / M.W. CRIPWELL LTD.

(SECOND SECTION)

MANAGEMENT COMMITMENT

5. MANAGEMENT RESPONSIBILITY

5.1 Management Commitment

The Management team are committed to the development and implementation of the quality management system and to continually improve its effectiveness by: -

a) Communicating to all employees, the importance of meeting customer as well as statutory and regulatory requirements.

b) Establishing the quality policy.

c) Establishing quality objectives for each business process.

d) Leading management reviews.

e) Ensuring the availability of resources.

f) Seeking opportunities for business improvement

5.2. Customer Focus

Processes are in place to ensure customer requirements are determined and fulfilled with the aim of enhancing customer satisfaction.

Provision is therefore made for: -

- Determining and then implementing the most appropriate way of increasing public awareness of our services
- Direct contact at the customers premises to determine customer needs and expectations for preparation of the system design specification
- Ensuring the content of contracts, quotations and system design specifications are in accordance with the requirement of appropriate NSI / BAFE Codes of Practice.
- Customer satisfaction measurement such as the gathering of statistical information to measure (for example) achievement rates for maintenance contracts and sales realisation leads e.g. new business by recommendation, system takeovers etc. with an overall view of enhancing customer satisfaction. A reference to customer satisfaction measurement is also made in Clause 8.2.1 of this Policy Manual.

5.3 Quality Policy

See Business Strategy and Quality Policy, Section 0 of this Policy Manual.

5.4 Planning

5.4.1. Quality Objectives

Measurable key performance indicators are established to measure the Quality Objectives set by management for each business process and these are communicated to relevant personnel.

Examples of quality objectives include: -

- Routine maintenance performance in respect of contractual obligations
- Unwanted alarm reduction, which if appropriate will be based on any targets which may be set by CFOA
- Conformance to minimum response times for emergency call out
- Satisfactory conformance to technical standards of installations as determined by internal and external audits.
- The resolution of customer complaints and effective corrective action to prevent reoccurrence.
- The directors determine the degree of focus on other performance parameters at appropriate times.

Top management may set performance targets that are superior to basic contractual requirements as they see fit.

5.4.2 Quality Management System Planning

The Management team are responsible for: -

- Ensuring the quality management system is set up and maintained in accordance with ISO 9001, NSI Quality Schedule FSQS121 and BAFE Scheme SP203
- Ensuring that changes to the quality management system are planned, and if changed, communicated to relevant staff. Examples of situations where changes are considered are those arising from:
  - Acquisitions and joint ventures.
  - New product development.
  - Introduction of new technologies.
  - Organisational restructuring.
  - The use of sub contractors.
- Ensuring that the setting of quality objectives is supported by adequacy of processes and resources and that these are practically based on the capability of the organisation.

The established quality management system is such that it serves as a Quality Plan for the majority of contracts undertaken. For complex systems where installation may be over a period of months and integrated into a construction programme under the management of the client, additional project control sheets appropriate to the individual contracts may be used.

5.5 Responsibility and authority and communication

5.5.1 Responsibility and authority

5.5.1.2 Organisation

An organogram is shown in Appendix A. The main responsibilities are as follows:

Management Team

The Managing Director has overall responsibility for all aspects of the Quality System, however on a daily basis the Management team, is responsible for all activities at M.W.Cripwell Ltd. Included in the management of the business are the duties associated with the being the focal point for the establishment and maintenance of the quality management system ie:

- The identification and acquisition of equipment, fixtures, production resources and skills that may be needed to achieve the quality policy and business objectives.
- One member to act as chairman of the management review meeting
- Appointing personnel to undertake technical and administrative internal audits
- Considering and acting upon (where appropriate) data generated from the measurement of processes with the view of effecting continual improvement of the quality management system
- Determining the criteria for customer satisfaction measurement
- Review of training needs and undertaking activities that give employees the necessary attitude, knowledge and skills to carry out their tasks conscientiously.
- Maintenance of records required by Regulatory Bodies, Standards and any other records required under the terms of the contract.
- Responsible for the control of all documents and records and where new or revised documents are introduced, taking into account any impact, requirements for change etc they may have on the business and QMS.
- Compiling the list of approved suppliers
- Overall responsibility for security screening of employees
- Maintenance of customer complaints files and activities to support the resolution of customer complaints etc.

Engineering Supervisor & Project Manager

- Ensuring that the qualification and effectiveness of personnel undertaking inspection/installation activities is maintained
- Ensuring that Installations conform to the Product Standard and are so certificated.

Sales & Marketing Manager, Engineering Supervisor

- Preparation of quotations / specifications in liaison with all interested parties, including, but not restricted to: client, builders, consultants, architects, fire authorities, local authorities etc.
- Retains ownership of project up to handover to Installation Manager following customer acceptance

Systems Performance Manager

The Management Team currently undertakes this duty jointly; they have sufficient authority to achieve the following objectives:

1. The effective monitoring of surveying and installation to ensure that:
   - Specifications meet the requirements of company policies and/or the design criteria
   - Specifications do not call for systems, which are likely to generate abnormally high false alarm rates.
   - Standards and Code of Practice are being maintained during installation.
   - Customer documentation standards are being maintained during installations.
   - Training standards for customers are maintained.
2. The effective monitoring of preventative maintenance procedures.
3. The effective monitoring of demands for corrective maintenance.
4. The effective monitoring of faulty equipment records returned from installations.
5. The effective monitoring of the Company's False/Unwanted Alarm Policy in accordance with CFOA requirements if applicable or our internal objectives:
   - Collection, reporting and analysis of False/Unwanted Alarm statistics and their cause and resolution
   - Identification of treatment of 'rogue' systems
   - Identification of troublesome equipment and practice.
6. Effective liaison with Police Forces / Fire Brigades / Local Authorities and their policies.
7. The effective monitoring of evaluation trials on new equipment with particular reference to False/Unwanted Alarms.

The Nominated Designer

The Fire Estimator/CAD designer, Project Manager & Engineering Supervisor, have been deemed to fulfil the role of 'Nominated Designers' under the NSI Scheme. Their duties and capabilities include: -

- To be the focal point for the matters of the design of installations
- To ensure that the content of quotations and system design specification are compatible with the requirements of the appropriate Technical Standards and Codes of Practice.

- To ‘sign off’ designs on behalf of the company.
- To be a “Process Owner” of the business process for converting enquiries into sales.
- To be conversant with and update company activities in respect of new technologies, regulatory standards, EU Directives etc that are relevant to the design process.
- To be conversant with installation requirements such that system design specifications are professionally compiled and finalised in a manner which gives clear and unambiguous information to the installing engineer.

Nominated Design Engineers

Grade 3 Engineers have been deemed to fulfil the role of ‘Nominated Design Technicians’ under the NSI Scheme. Their duties and capabilities include: -

- To incorporate any minor changes requested by the client during installation provided that they still meet all the appropriate requirements, eg Technical Standards, NSI Codes of Practice, coverage etc.
- To ‘sign off’ these 'variations' to the design on behalf of the company.
- To be conversant with new technologies regulatory standards, EU Directives etc that are relevant to the design process.

5.5.2 Management Representative

The Operations/Business Manager at BTS, acts as the point of contact for outside agencies, but will not implement any changes without consultation with and approval of the appropriate members of the management team

5.5.3 Internal Communications

BTS/MW Cripwell Ltd is a medium sized firm and benefits from informal communication channels between management and staff through direct face-to-face contact, informal discussion and (when beneficial) internal memoranda.

Communication of the Quality Policy and Quality Objective is provided by access to the Company Policy Manual and the documented business processes and procedures.

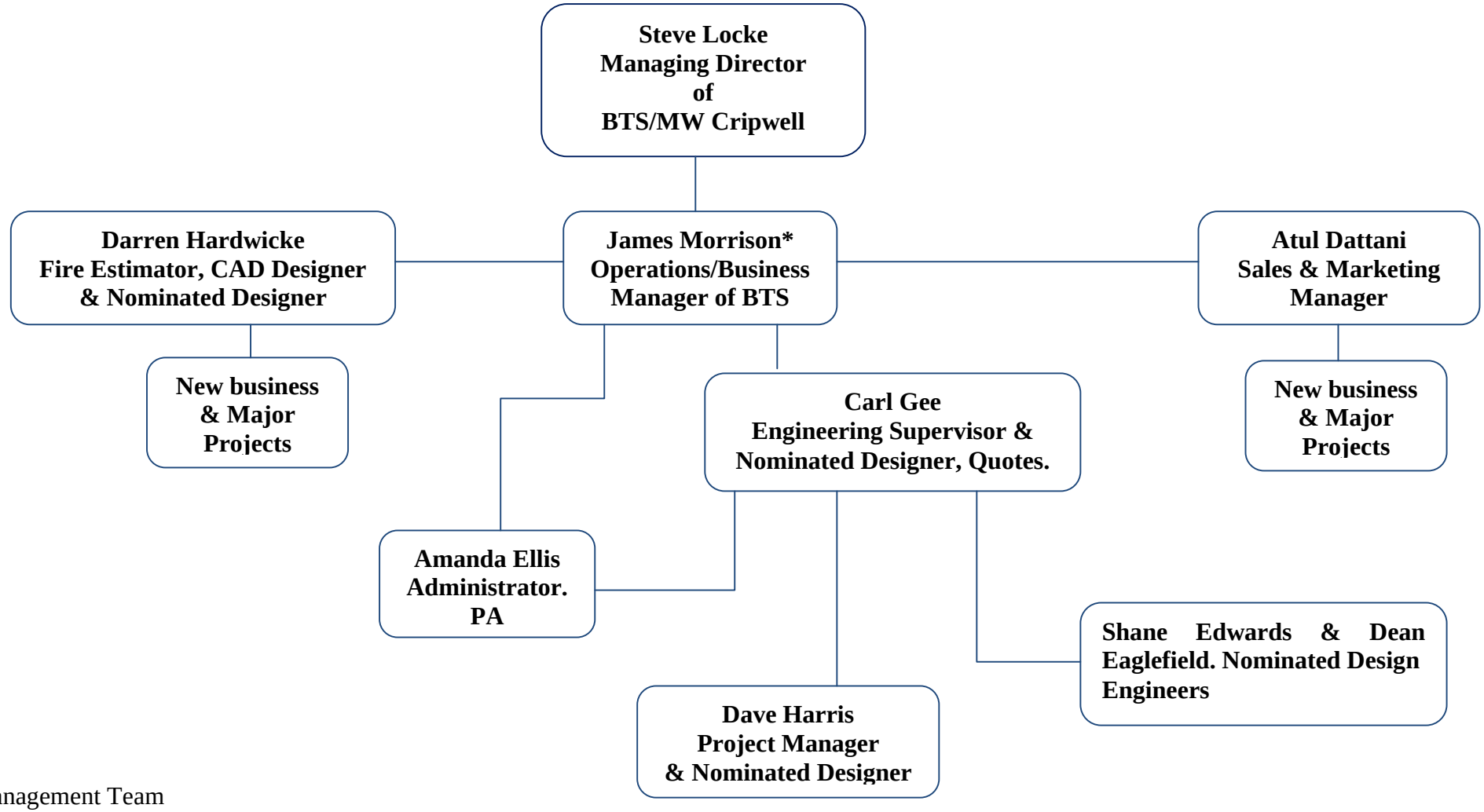
5.6 Management Review

The Quality Management system is reviewed at planned intervals to ensure its continued suitability, adequacy and effectiveness in satisfying the quality policy and quality objectives.

A master Management Review Agenda is used. It will be determined by the Management team and shall cover all aspects of the Quality System.

POLICY MANUAL
BTS / M.W. CRIPWELL LTD.

ORGANISATION CHART



* Management Team

POLICY MANUAL
BTS / M.W. CRIPWELL LTD.

(THIRD SECTION)

RESOURCE MANAGEMENT

6. RESOURCE MANAGEMENT

6.1 Provision of Resources

The Managers determine and provide the resources needed to: -

a) Implement and maintain the quality management system and continually seek to improve its effectiveness. Particular importance is placed on the effectiveness of the key performance indicators of business processes, which may instigate action for enhancing resources and/or the performance improvement of personnel.

b) Ensure there are sufficient human and hardware resources to meet contract requirements e.g. routine maintenance targets, call out response targets and enhance customer satisfaction.

6.2 Human Resources

6.2.1 General

Personnel performing work affecting product quality are competent on the basis of appropriate education, skills, training and experience.

6.2.2 Competence, awareness and training

(i) The company recognises the importance of training in improving quality and service and a structured training scheme is operated. Training not only includes familiarity with installation and maintenance operations but also awareness of Health and Safety at Work issues relevant to the role of the individual and matters of customer care.

(ii) Training programmes are used to identify the level of competency required for an employee. The content may be a Quality Procedure or Work Instruction. Training programmes are only signed off when the employee is competent. For any training not detailed on the initial programme, each time training is given, the date, the details and signature of the person given the training are recorded together with a statement on achievement (if appropriate).

(iii) In respect of installing and maintenance engineers and surveyors a measure of achievement may be provided by the results of technical audits the Procedure for which identifies training needs (if any) in the light of results.

(iv) For some job training, individuals may have already obtained sufficient experience etc. elsewhere. In such instances, no further training will be necessary and this will be stated on the training record.

(v) Competency levels are reviewed and recorded on a training matrix.

6.2.3 Security Screening

The company recognises that, every customer has the right to expect that so far as it is reasonably possible to do so, the services supplied will be provided by personnel who do not present a potential security risk.

For this reason all employees will have a minimum level of screening, including personal and previous employers references, and will be subject to monitoring.

Where it is a condition of the contract employees will be screening in accordance with British Standard BS 7858.

All employees required to visit customers' premises are provided with an Identity Card bearing information required by British Standard PD6662.

6.3 Infrastructure

The company is mindful to the importance of the infrastructure in influencing the effectiveness of its operations. Under the term of its recognition by the NSI Scheme, the company adheres (as a minimum standard) to the requirements set out in the NSI Criteria including:-

- The adequacy and suitability of premises particularly in terms of security and professional image
- The reliability and suitability of company vehicles including instructions to Engineers on their responsibilities for care and associated equipment – ladders etc.
- The adequacy of test equipment, such as measuring instruments

6.4 Work Environment

(i) The company ensures that working conditions conform to the Health and Safety at Work Act and the Regulatory Reform (Fire Safety) Order 2005 and are adequate for the work performed.

POLICY MANUAL
BTS / M.W. CRIPWELL LTD.

(FOURTH SECTION)

PRODUCT REALISATION

7. PRODUCT REALISATION

7.1 Planning of Product realisation

The quality management system provides a high level of assurance that systems are installed and maintained by trained personnel to the appropriate product standard (currently BS5839, BS6266, SP203 for Fire Alarms, but will include any relevant standards as/when they apply) and that contractual service agreements are fulfilled.

7.1.2 In order to achieve these objectives the quality management system is integrated with the technical and regulatory requirements of the industries such that documentation provides for the following as appropriate:

- Evidence that contractual obligations are agreed and understood by all parties
- Evidence that system design specifications, including where necessary drawings, are developed which reflect the level of protections required.
- Evidence that components used on installations meet the technical requirements of the industry
- Evidence of 'in process', commissioning, final inspections and verification
- There is adequacy of trained resources to meet contractual maintenance obligations.

7.1.3 Where projects are accepted that are not “run of the mill” then there is full consideration of any extra demands this may place on the organisation resources and quality management system and action taken accordingly in respect of existing procedures, work instructions etc.

7.2 Customer Related Processes

7.2.1 Determination of requirements related to the product

All critical steps to determine customer’s needs are inherent in the Enquiry and Sales Realisation process and these requirements are implemented through the quality management system. This provides for control points to ensure that only contracts within our existing or achievable capability are undertaken.

The tender/estimating stage provides for:

a) The involvement of a Nominated Designer to ensure all of the features of the site to be protected (as advised by the customer) are taken into account and/or suitable maintenance options are offered. This will be either at the customer’s premises or by the review of building plans/tender documents provided for building projects.

b) A resolution of any uncertainties before a tender is submitted.

c) Ensuring any changes requested by the customer are resolved and where agreed incorporated into the specification.

7.2.2 Review of Contractual Requirements Related to the Product

Following the development of a system design specification (see Clause 7.3 Design and Development for details)

a) A review of our quotation is undertaken before submission to the customer to confirm the contractual requirements are adequately defined and documented and that the capability and resources to meet the requirements remain in place or achievable.

b) A further review is carried out on acceptance, either verbal or written (return of completed contract, order number, fax, letter etc) and if any changes or amendments are requested these are resolved before being considered as a firm order.

c) If the customer declines to give anything other than a verbal acceptance a letter will be sent, or taken by the installing engineer if time is of the essence, informing the client that unless confirmation is received to the contrary within seven days, or before work commences, it will be assumed that the specification/contract conditions have been accepted.

d) During and after completion of the installation all amendments and/or variations for systems are agreed and recorded and the requirement of the contract are completed.

Note: The stages of contract review and acceptance are undertaken alongside the development and review of the system design specification such that the customer himself will review the contract and design proposals together before his acceptance.

7.2.3 Customer Communication

Customer liaison is continued throughout the life of the installations under maintenance contracts (PR03).

Communication channels are established which cover interaction with clients and other business stakeholders (e.g. NSI, CACFO). These channels include, but are not restricted to:

- Installation and service information, maintenance visit records, users handbook etc
- Enquiries, quotations and contracts including amendments/variations
- Customer complaints protocols
- Communications from other business stakeholders
- 24 hours call out facility

7.3 Design

7.3.1 Design planning

Controls are established to ensure that the requirements of the customer are translated into a system design specification that lists the equipment and components to be supplied, details their proposed location and contain a general indication of their coverage and purpose.

7.3.1.1 In all cases the initial survey is allocated to a surveyor recognised by the firm as a 'nominated designer' having the necessary expertise in the type of system required (intruder alarms, fire etc.). It is his responsibility to ensure that: -

a) The customer is made aware of and agrees to the limitation (if any) of the demands of the appropriate technical Standard and regulatory requirements of other interested parties (e.g. local authority, Insurance, Fire Brigade)

b) The appropriate stages of design, including design review, design acceptance, design validation and recording, disciplines are followed.

c) There is consideration of any changes in the client requirements as installation proceeds and there is a recorded agreement of such changes and/or variations between customer and ourselves.

7.3.1.2 Not all design work is undertaken 'in house'. Where the design is provided by a third party, normally a consultant appointed by the client, the design proposals will be reviewed to ensure compliance with standards, suitability etc. Any weaknesses and/or recommendations will be identified to the designer in writing.

Apart from this one aspect, these projects follow the normal procedures for control etc.

Liaison between office based staff and installation teams is effected by the normal communication channels existing within the organization.

7.3.2 Design inputs

7.3.2.1 Before a system design specification is developed, the prospective customer's needs, expectations and patterns of usage of the premises to be protected are established by the nominated designer during a visit to the customer's premises (or by a review of building plans for new Projects). The designer will also discuss the type of fire risk within the premises, and the means of escape. All fire detection & alarm systems will be categorized in accordance with one of the categories specified in BS5839-1.

7.3.2.2 It is recommended that the customer has already had a Risk assessment of the premises by the appropriate organization.

7.3.2.3 Information gathered on the survey visit is recorded, and, together with standard conditions of contract, forms the basis for the assembly of a design proposal that is eventually submitted to the customer for consideration/acceptance.

7.3.3 Design outputs

A design proposal is prepared by the nominated designer which will have been developed through consideration of such features as the electrical consumption of the system, the position and type of sounders (with due regard to local authority requirements) and the possibility of future extensions of the installation.

The proposal will also include information to the customer on any limitations in the design in terms of risk, together with other details required by the appropriate British Standard Specification(s) and NSI or BAFE Scheme SP203.

7.3.4 Design review

7.3.4.1. Initial Review prior to submission to the customer

A review of the Design proposed is undertaken prior to submission to the customer to ensure that:

- Details have been completed in accordance with standard practice
- Coverage and equipment is relevant to the information gathered on the survey or review of drawings
- It can be confirmed that the type of work (if the contract is obtained) is within the capability of the organisation
- The system design specification is reconcilable with the design requirement.

7.3.4.2. Design Review after due consideration by the customer

A review of any documentation returned by the customer is made. If the customer accepts the proposal in its entirety or with suggested amendments (and these are accepted by the designer) the documentation becomes the formal systems design specification and contract.

Formal practices are in place, which reflect the requirements of NSI for the review and consolidation of design proposals.

7.3.5 Design verification

7.3.5.1 Verification of the design review stages is by approved signature and date.

7.3.5.2 Confirmation of acceptance of the work allows the provision of material and components to go forward in a timescale to suit the installation schedule programme.

7.3.5.3 All contract records are retained for at least two years beyond the termination of the contract. Design information is retained for 12 years unless this responsibility is passed on to the client or another maintenance contractor.

Note: The stages of contract review and acceptance are undertaken alongside the development and review of the system design specification such that the customer himself will review the contract and design proposals together before his acceptance.

7.3.6 Design validation

Validation (verification) of design is provided by means of engineering documents such as the Handover Checklist, Fixed Wiring Checks, Completion Certificate etc. Continued validation is updated through the provision of a routine maintenance contract.

7.3.7 Control of design changes

Any variations which have been made to the original specification before or during handover are recorded for example, by letter, e-mail, amending/re-issuing the specification /system record / drawings, annotating the existing documentation or other means as appropriate to the situation. Variations that are unresolved, together with any outstanding work required by the customer which may detract from the effectiveness of the installation, are recorded on the Completion/Module Certificate

7.3.8 Fire System Verification

It is a requirement of SP203 that all new systems entitled to receive a Full BAFE Certificate be 'verified' prior to the issue of that Certificate. The process of 'verification' is explained in clause 10 of SP203.

Where we are responsible for all the modules of work (i.e. Design, Installation & Commissioning) the verification process this will normally be carried out within ongoing project management throughout the course of the project.

Where we do not carry out all of the modules of work but have the responsibility (by contract) to issue the Full BAFE Certificate verification will be carried out retrospectively. However, access to much of the installation (e.g. cabling) may not be possible and therefore it will not be as comprehensive as ongoing verification.

Note: Verification is not required if only module certificates are to be issued. In other words verification is associated with a Full BAFE Certificate only.

7.4 Purchasing

7.4.1 Purchasing Process

7.4.1.2 A business process is in place to provide control over purchased components and sub contract services to ensure that the specification and performance of the installation is not jeopardised by inadequacies in outsourced supplies.

The main categories of activity relate to:

- The evaluation of suppliers such as manufacturers, stockists, alarm receiving centres, which are subject to supplier evaluation procedures and performance monitoring.
- The use of formal purchase orders to communicate requirements, these may be hard copies, faxes or e-mails; or verbal placement of order (by telephone or in person if items are being picked up direct from the supplier).

- On receipt inspection of supplies
- Arrangements with suppliers of sub-contract labour (if applicable).

7.4.1.3 Sub-Contractors

a) Fire Alarm Sub-Contracting
Only approved suppliers will be used for sub-contract work. Due regard will be given to commercial implications such as insurance, reputation etc.

b) Allied Trades
Where a contract requires the use of specialist skills from allied trades e.g. carpet laying, carpentry, locksmithing or electrical power contracting, the choice of sub-contractor shall be selected from the company approved list based on satisfactory historical data or references.

c) Alarm Receiving Centres (ARC)
Where remote signalling systems are contracted, only centres recognised and certificated as meeting the requirement of British Standard BS 5979 and acceptable to NSI.

d) Consultants and companies used for processes such as Maintenance, Security Vetting, internal auditing etc
Where these activities are undertaken by an outside agency, they will be assessed in order to meet the requirements of our Vendor Assessment process as detailed in PR05 Purchasing. We will retain ownership of all the customer and legal responsibilities associated with these activities.

7.4.2 Purchasing Information

Purchasing documentation is specific in terms of product description and specification (where appropriate) and services (where appropriate).

7.4.3 Verification of Purchased Products

All incoming purchased equipment and material is initially checked for quantity and damage against the details stated on the relevant purchase order. Effective procedures are maintained to separately identify and quarantine goods, which do not appear to meet the order requirements. These are only accepted into stores for use after appropriate verification with the supplier.

Ref: Business Process for Purchasing and associated Procedures

NOTE Where assurance on the adequacy of products and/or services is best determined at the supplier's premises this requirement is stated on the purchase order.

7.5 Production and Service Provision

7.5.1 Control of production and service provision

Business Processes that have been developed (see also Clause 8.2.3) include the core processes of:

- PR01 Enquiry Design and Sales
- PR02 Planning and Installation
- PR03 Routine Maintenance
- PR04 Corrective Maintenance & FA Management
- PR05 Purchasing
- PR06 Recruitment and Training

Control of the process is identified in each Process Map but controls also include:

- The provision of a systems design specification or maintenance contract agreed with the customer
- The provision of outsourced supplies through Stores and Inventory Control techniques to match the demands of the installation programme and the ongoing maintenance programme
- The provision of engineering instructions where necessary.
- The provision of installation planning schedules.
- Tests undertaken to ensure conformance of the installation to the system design specification on handover. Similar provision is made for work undertaken on routine maintenance visits and on emergency call outs.
- The employment of personnel who are suitably trained and competent
- Resources to enable the routine maintenance schedules to be provisioned and updated.
- The review of statistics generated by the false alarm management process including monitoring of response times to call out.
- The provision of suitable test equipment for test measurement
- Technical support ‘on tap’ to field staff

7.5.2 Validation of processes of production and service provision

Comprehensive training programmes for field engineers provides assurance that necessary examinations and inspections during installation (such as the quality of wiring connections, hidden joints, etc.) are undertaken prior to final inspection.

7.5.3 Identification and traceability

7.5.3.1. There is no requirement for traceability of components to specific installations, although special arrangements exist between manufacturers and stockists where warranty claims are justified

Full traceability of service history documents provide full information of routine inspections and occasions of emergency call outs (the latter in association with Alarm Receiving Centre records for remote signalling systems). The organisation maintains records for troublesome installations, temporary disconnections, etc, and suitable arrangements for monitoring the status of work in progress.

7.5.3 Customer Property

7.5.4.1 Staff undertaking site visits are trained to exercise care with customer property and premises.

7.5.4.2 From time to time we are requested to take over the maintenance of installations previously installed by other installers who may or may not be NSI Recognised. In such instances decisions will be made to:

- Take over the maintenance and issue a Full BAFE Certificate or Module Certificate providing survey of the site reveals compliance with all regulatory requirements (Fire Alarm)
- Take over maintenance where a BAFE Certificate is still current (Fire Alarm)

7.5.5 Preservation of Product

Staff engaged in the handling of goods and equipment in stores and in transit to site, are aware through staff training of the need for adequate protection to prevent damage etc and malfunction. They are assisted by the provision of containers for transportation purposes.

The systems provides for the requisitioning of stores, storage of goods, issue of goods and monitoring their usage.

7.6 Control of Measuring Devices (Calibration)

Inspection measuring and test equipment is supplied by the organisation and integrated in to a planning schedule to undertake suitable checking for accuracy and use.

Each instrument is the subject of an individual date of testing record.

Ref: The Documented Procedure for Calibration is QP 04-01

7.7 Control of Waste Disposal

We endeavour to meet all our legal responsibilities regarding waste disposal and have contracts with approved contractors for the collection of waste such as batteries, ionisation heads, pcb boards etc, this is put in place by the stores manager. All aspects of waste disposal are the responsibility of the Health and safety and environmental representative.

POLICY MANUAL
BTS / M.W. CRIPWELL LTD.

(FIFTH SECTION)

MEASUREMENT ANALYSIS AND IMPROVEMENT

POLICY MANUAL
BTS / M.W. CRIPWELL LTD.

8. MEASUREMENT, ANALYSIS AND IMPROVEMENT

8.1. General

Management controls are in place to:

a. Demonstrate that installation and maintenance contracts are fulfilled in accordance with the agreed requirements.

b. Ensure that the quality management system is effectively maintained to satisfy the requirements of ISO9001, NSI Quality Schedule FSQS121, BAFE SP203 and any other specific requirements that may be agreed with the customer as may be the case with major specifers involved with large projects.

c. Continually improve the effectiveness of the quality management system, through:

- Provision for the identification of improvement opportunities in our business processes through our internal audit programme, Management Meetings etc.
- Feedback from customer perceptions of the business
- Feedback from external independent audits (NSI)

8.2. Monitoring and measurement

8.2.1 Customer Satisfaction

Information is gathered to determine customer perception of our Company. Sources include:

- Customer Complaints. (Ref : QP05-01)
- Sales Realisation figures, although these are predominantly monitored at the main management meeting.
- Number of sales arising from recommendation.
- A review of the number of installation off police response.
- A review of the number of installations deemed as ‘troublesome’ for reasons attributable to the company.
- Information and opinion of our own staff.
- Customer satisfaction surveys when considered necessary.
- Correspondence received from satisfied customers

8.2.2 Internal Audits

Programmes of internal audits are in place to monitor the effectiveness of the quality management system and business processes using auditors suitably trained and qualified to the types of audits undertaken.

As a part of the audit programme technical auditing is undertaken of the work of each technician using appropriate checklists encompassing the specific requirements of the standards and codes of practice for the systems installed.

The documented procedures include statements of the frequency at which audits are undertaken (i.e. a minimum of one per technician, per discipline, over a twelve (12) month period) and the person(s) nominated to undertake the audits. The steps to be taken if the installations selected fail to meet the specified criteria are defined and include a reference to possible training needs and/or an increase in the frequency and number of audits.

In all cases there is provision in the audit report for identifying and recording potential areas of improvement as well as the application of normal corrective action techniques for addressing non-conformities.

A summary of internal audit findings are presented for consideration at Management Review meeting.

Ref: QP05-02 Quality Audits
(Administration & Technical Auditing of Engineers)

8.2.3 Monitoring and Measurement of Processes

All of the business processe are monitored for effectiveness and where possible (and considered appropriate) monitoring is supported by direct measurement of values. Key performance indicators are identified in each business process together with the name of the 'process owner' who is responsible for the monitoring and collection of data.

Suitable corrective action techniques are applied when planned results are not achieved. Monitoring techniques employed include confirmation of the capability of staff to provide satisfactory input into the tasks involved.

Typical business processes include:

- Conversion of enquiries into sales (commercial success)
- Planning and installation (relationship between design planning and installing)
- Routine maintenance (monthly measurement against contract)
- Corrective maintenance (Response time measurement and adequacy of input data for False Alarm Measurement)
- False Alarm Management – (measurement in accordance with internal objectives)
- Purchasing and Inventory Control (Supplier performance measures)
- Recruitment and Screening (Human resource capability)
- Customer satisfaction appraisal (quality management improvement)

8.2.4 Monitoring and measurement of product

8.2.4.1 Each engineer will install (or maintain in respect of routine maintenance visit) the system in accordance with the system design specification and to our defined work practices.

(i) Inspection of Systems during Installation.

Before departure to site the necessary material equipment is assembled into an installation kit and checked against the material list.

In process and final functional and performance tests are untaken by the Installation Engineers before complete or partial handover to the client

(ii) Inspection of Systems under Routine Maintenance Contract

Having been notified of the visit details the engineer will when on site :

- Establishes with the subscriber if any problems with the system have occurred since the last maintenance visit. This is particularly important for Systems which can be reset by the subscriber
- Examines the system documents / panel log etc. on the premises to ascertain whether there have been any service call or alarm incidents since the last maintenance visit
- Establishes the False/Unwanted Alarm rate and (if applicable) initiates further action.
- Enquires if there has been (or likely to be) a change in the use or structure of the premises or working procedures
- Ensures the subscriber remains fully conversant with the operation of the system (including new personnel)
- Ascertains (and reports) if the name and contacting addresses of key holders have changed
- Undertakes inspection checks and if necessary any rectification work and record work on the appropriate documentation.
- Obtains the signature of the customer
- Completes items of inspection or rectification not carried out during the routine visit within 21 working days and provides a separate report as per normal procedure.

(iii) Inspection of Systems Subject to Emergency Call Out

Protocols are established under the 24 hour call out service, such that the emergency engineer:

- Endeavours to restore the installation to full working order.
- Where this is not possible and the alarm is disconnected, there is notification to the office where a disconnection log is monitored to facilitate restoration to full working and he obtains written agreement from the customer
- Provides data on the cause of the problem.

8.3 Control of Non Conforming product

8.3.1 A documented Non Conformance Procedure (Ref QP 05-03) is in place, which provides for appropriate identification, and segregation controls of components found faulty on site or damaged on receipt.

8.3.2 The Non Conformance Reporting System applies across a number of business processes as a convenient means of 'capturing' situations which detract from the satisfactory performance of an installation under contract. Examples are:

- The identification of troublesome systems.
- Low contractual maintenance achievement per month.
- A temporary disconnection.

8.4. Analysis of Data

Information arising from business process is reviewed to demonstrate the continued effectiveness of the quality management system. The frequency of the review will vary from process to process but the outcome of such reviews will be considered at the Management Review Meeting (or sooner if needs dictate).

8.5. Improvement

8.5.1 Continual Improvement

BTS/MW Cripwell Ltd seek to quantify opportunities for improvement of the quality management system through the use of, for example:

- The result of internal and external audits
- Analysis of data from business process
- Suggestions identified by employees
- Customer feedback

8.5.2 Corrective Action

Where non-conformities have been identified within a business process, effective corrective action is implemented to address the immediate problem and prevent reoccurrence. Examples are: -

- Monthly routine maintenance achievement below specified controlled targets
- Troublesome systems in respect of false alarms
- Unsatisfactory installation standards revealed by internal (and/or external) audits
- Unacceptable response times for emergency call outs
- Customer complaints

8.5.3 Preventive Action

Potential for non-conformance is identified where possible and actions taken to prevent occurrence. Examples of this pro-active approach include:

- Ensuring the ongoing availability of resources to meet the routine maintenance schedule.
- Reacting to information received concerning problems arising with communication technologies etc.
- Implementing effective training programmes in the use of new items of equipment.

Ref: The Documented Procedure for Corrective & Preventive Action is QP 05-04