Certificate Renewal

Report for:

Plumis Limited

LR reference:	LRQ00003899 / 4218594
Assessment dates:	09-February-2021 - 19-February-2021
Reporting date:	19-February-2021
Client address:	Unit 4, Phoenix Trading Estate,Bilton Road, Perivale,Greenford UB6 7DZ,GB
Assessment criteria:	ISO 9001:2015
Assessment team:	Graham Clapperton
LR Client Facing Office:	LRQ United Kingdom OU

Lloyd's Register

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Attachments:

LRQ00003899_APP_QMS_CR_GRC.docx

This report was presented to and accepted by:

Name: Iwona Kolinska

Job title: Executive and Customer Services Assistant

01. Executive report

Assessment outcome:

Based on the assessment outcome the Assessment Team recommends the ISO 9001:2015 certification of Plumis Limited for the agreed scope.

Assessor Name: Graham Clapperton;

A Remote assessment was completed for the Certificate Renewal visit (CR) via Google Meet. This was due to the ongoing Covid-19 Pandemic which has had an impact on many businesses, which has caused Lloyds Register to undertake this remote approach. The Remote Audit was conducted according to the Audit Programme Plan attached at section 05 - Appendix; LRQ00003899_APP_QMS_CR_GRC. Items audited at this Certificate Renewal visit (CR) are indicated by a letter 'R' in the Programme/Plan on the first page of that appendix.

The following were raised during the remote assessment;

There were five Good Points (GPs) noted;-

Good Point - Well established and mature systems
Good Point - All records produced have been maintained with ease of access and recall.
Good Point - Staff interviewed were well aware of procedural and process requirements.
Good Point – the Town-Hall Meeting helps to ensure that all personnel are involved in business development.
Good Point - Excellent Assembly instructions with good descriptions and pictures.

There were no Observations (Obs) noted.

Opportunity for Improvement (OFI) – None

Minor Non-Conformances;- There were no new Minor NCs raised.

There were no historic minor NCs to be reviewed at this visit,

The Assessment Team Leader confirms the contractual arrangements for ISO 9001:2015 are correct. This includes any changes required as a result of the outcome of the Stage 1 visit (including changes to the scope of assessment, duration of the Stage 2 visit, and duration of subsequent surveillance visits).

Continual improvement:

Assessor Name; Graham Clapperton

The company operates mature and established systems that adequately address continual improvement requirements. Objectives are established to ensure that continual improvements are made and are measurable.

The management system is helping to minimise business risks, to support business objectives and is generating appropriate and reliable data to enable fact-based decision making demonstrated by effective use of management review & strategy meetings, comprehensive internal audit process of system & process and effective use of analysis and evaluation.

Areas for senior management attention:

Assessor Name; Graham Clapperton

None

02. Assessment findings

Where scheme requirement differs to the standard definition below, the scheme definition will take preference

Major Nonconformity
The absence of, or the failure to implement and maintain, one or more management system elements, or a situation which would, on the basis of the available objective evidence, raise significant doubt of the management to achieve: The policy, objectives or public commitments of the organisation, compliance with the applicable regulatory requirements, conformance to applicable customer requirements, conformance with the audit criteria deliverables.

Minor Nonconformity
A finding indicative of a weakness in the implemented and maintained system, which has not significantly impacted on the capability of the management system or put at risk the system deliverables, but needs to be addressed to assure the future capability of the system.

Reference number		**Assessment Criteria (Clause)**	
Grade		**Issue Date**	
Status		**Process / Aspect**	
Location(s)			
Statement of Non Conformity			
Requirement			
Evidence			
Proposed correction, corrective action and timescales			
Correction			
Root Cause analysis			
Corrective action			
LR has reviewed and verified the implementation of actions taken.		**Date of closure**	

03. Assessment summary

Visit generic objective:

This was a Certificate Renewal visit, conducted against objectives previously notified to the client. The objectives of the next visit, including any applicable visit specific objective (theme / focus), are confirmed in the audit plan attached to this report.

Client attendees at the opening and closing meeting:

Assessor Name: Graham Clapperton;

An Opening meeting was conducted remotely due to the Covid-19 Lockdown requirements. This was conducted in accordance with LR process requirements. It was held at 09:00 on 09/02/2021 by Google Meet.

Those in attendance:

Amaar Bokhari - Supply Chain Manager
Steven Dynan - Installation Support & Services Manager
Will Goodwin - Head of Business Development
Glenn Hayward - COO & QM
Iwona Kolinska - Executive & Customer Services Assistant
Robert Wilczynski – Production & Logistics Manager
Martin Ellington - Consultant

Graham Clapperton – LR

An Opening meeting was conducted remotely due to the Covid-19 Lockdown requirements. This was conducted in accordance with LR process requirements. It was held at 09:00 on 19/02/2021 by Google Meet.

Those in attendance:

Jinwen Cen – R&D Manager
Laura Harris – HR Manager
Robert Wilczynski – Production & Logistics Manager
Will Goodwin – Head of Business Development
Glenn Hayward – Chief Operating Officer & Quality Manager
Martin Ellington - Consultant

Graham Clapperton – LR

A Closing meeting was conducted remotely due to the Covid-19 Lockdown requirements. This was conducted in accordance with LR process requirements It was held at 16:00 on 19/02/2021 by Google Meet.

Those in attendance:

Jinwen Cen – R&D Manager
Laura Harris – HR Manager
Robert Wilczynski – Production & Logistics Manager
Glenn Hayward – Chief Operating Officer & Quality Manager
Amaar Bokhari - Supply Chain Manager
Martin Ellington - Consultant

Graham Clapperton – LR

Visit specific objective:

Assessor - Graham Clapperton;

The objectives of this two-day visit was to conduct a Certificate Renewal visit (CR) against the requirements of ISO 9001; 2015. The audit was conducted in accordance with LR process requirements.

The audit focused on a review of the effectiveness of the QMS and to verify through audit that the quality management system (QMS) continues to be maintained in conformance with the requirements of ISO 9001: 2015.

The Audit was conducted according to the Audit Programme Plan attached at section 05 - Appendix; LRQ00003899_APP_QMS_CR_GRC

Introduction:

Assessor - Graham Clapperton;

This Remote visit was to assess the continued compliance of the management system of Plumis Limited (hereafter referred to as the Company), and to carry out a Certificate Renewal visit (CR) to ISO 9001:2015 to the requirements as defined in the audit planning documentation.

A Remote assessment was completed for the Perivale, Greenford facility, via Google Meet. This was due to the ongoing Covid-19 Pandemic which has had an effect on many businesses and caused Lloyd's Register to take this remote approach. The Remote Audit was conducted according to the Audit Programme Plan attached at section 05 - Appendix; LRQ00003899_APP_QMS_CR_GRC.

Established in 2008, Plumis has its roots in a project at the Royal College of Art (RCA) and Imperial College Business School (ICBS). Fire extinguishers in residential blocks are increasingly regarded by risk assessors as fire risks, as they can delay evacuation and encourage untrained people to fight dangerous fires. As a response to this insight and through substantial interaction with the fire protection industry, an RCA team consisting of Yusuf Muhammad, Paul Thomas and Jeung Woo Choi, developed a series of innovative fire suppression systems. Little real impact has been made in reducing domestic fire property losses despite public and private sector fire safety campaigns. Each year more than 60,000 fires occur in UK dwellings, resulting in approximately 450 deaths and more than 11,000 injuries. UK Government research suggests that socially deprived households are 31 times more likely to suffer fires than households in general. The idea for Automist came from a brainstorming session with a number of firefighters at Chelsea Fire Brigade.

Business over the last 12 months has been good despite covid and Brexit. Some issues were experienced between April and June of 2020 as a result of the first UK lockdown, however the company has seen growth of

31% in sales over the course of the last year. In addition, in January 2020 the company received a significant amount of investment which helped in the recruitment of three new business development managers.

During March 2020 a large contract was also secured with Lambeth Council.

There have been no issues relating to Brexit as most of the suppliers are based in China and most sales are either UK or US based.

The current headcount is 42 personnel. This is up from 19 last year.

The assessment scope was confirmed as " The Design, Manufacture and Supply of water Mist, Fire Suppression Systems & Installer Support."

A brief opening meeting was held remotely in line with LR procedures, including confidentiality, sampling approach and an overview of the assessment process including grading. An overview of activities provided by the company was provided in order to familiarise with the Processes.

Business changes affecting assessment - with the exceptions noted above, there have been no business changes that have had an impact on the management systems since the previous visit. There has been no slippage in the internal audit schedule.

The Management System Quality Policy introduces the Company's Management System (QMS) and identifies how the QMS is structured and how it operates to address its key objectives: Delivering safe, quality, and profitable projects by flowing down strategic direction, policies, and objectives into standard operating procedures and outputs. Meeting the needs and expectations of all Stakeholders. Ensuring operation to the principles set out in key Values. Complying with management system standards, including the ISO 9001:2015 standard for quality management systems, to which the Company is certified.

Sampling - The assessment process relies on taking a sample of the activities of the business. This is not statistically based but uses representative examples. Not all of the detailed nature of a business may be sampled. Therefore if no issues are raised in a particular process, it does not necessarily mean that there are no issues, and if issues are raised, it does not necessarily mean that these are the only issues.

Contractual arrangements - The contractual arrangements were discussed and seen to be in place. The number of days allocated reviewed and deemed appropriate.

The codes checked and agreed as – 107402

Assessment of:	Management Elements	**Auditee(s):**	Iwona Kolinska Martin Ellington	**Assessor:**	Graham Clapperton

Audit trails and sources of evidence:

Changes to organizational context, Management review, Internal Audits, Continual improvement, Management of change (System & Organisation), Corrective action, Management of complaints, Performance against the client's management system objectives, Use of Logo.
Quality Policy; QMS002 Quality Policy.doc - signed by Managing Director, 20/01/2021
QMS008 – Context of the Organisation; Reviewed - 26/01/2021
QMS011 - Organisational Knowledge; Approved - 30/01/2019
Control of Documents & Records - QMS200; Approved - 12/11/2020
Internal Audit Procedure – QMS203; Approved - 12/11/2020
ISO9001 / 14001 / 45001 Internal & External Audit Schedule for 2021 (Integrated)
Internal Audits;

- Audit No. 10; Performance & Improvement; Date 02/12/2020 - No findings
- Audit No. 06; Sales Order Processing - Manufacturing; Date 29/07/2020 - No findings
- Audit No. 04; Installer Accreditation; Date 20/05/2020 - 2 NCs, 4 OFIs
- Audit No. 01; Top Management Interview; Date 14/01/2020 - No findings

Screenshot of supplementary system that supports the Dropbox IMS structure this is in Confluence and uses Wiki Pages
Quality Management System Review - Dated: 28th October 2020
Plumis IMS Directory Structure

Evaluation and conclusions:

There have been no changes to the context or the scope of the business. There has been no change to the organisational structure since the last visit. The quality policy statement was reviewed in January and signed by the managing director.

The internal audit schedule for 2021 was reviewed. This identifies all key process is and also the extraneous elements of the various standards (the company is currently integrating ISO 9001, ISO 14,001, and ISO 45,001). Programmed audits are defined in yellow and each element is planned to be audited once within a 12-month cycle. Once audits are completed the audit number audit report number is inserted into the audit schedule and this hyperlink to the audit report. Additional audits may be added where issues are identified.

Internal audits are conducted by external consultants. All activities are audited effectively. Findings are identified as either nonconformances, opportunities for improvement (OFIs), or risks. Risks are evaluated to identify the nature of that risk, and suggested mitigation may be raised as opportunities for improvement OFIs). Findings within the report are linked to a corrective action request (CAR) which is raised in software called 'Asana'. The corrective action request is uniquely numbered, and refers to the appropriate audit, identifies the appropriate clause of the applicable standard, the corrective, preventative, immediate and long-term actions, and route cause analysis.

Corrective actions will be reviewed for evaluation and effectiveness.

The nonconformance system covers internal issues relating to production, customer returns or complaints, (this includes installation quality issues), and supplier non-conformance.

Internal non-conformances are raised on an internal corrective action request (ICAR). Supplier issues are recorded on a supplier corrective action request (SCAR). Customer returns are recorded on a return material authorization (RMA).

The 'quality log' is used to record any data associated with non-conformance. A control improvement process is used to record all issues and nonconformances - this will also include engineering concerns, the return material authorization process, incoming quality control, supplier CARs, in line, and end of line issues. The impact of each issue will be reviewed by quality control in a 'triage' system after which a pareto analysis will be conducted. Failure modes and effects analysis (FMEA) will be applied and action will be taken. Trends will be evaluated and analysed.

The outputs from FMEA will be reviewed as part of the management review.

The company monitor the authorised resellers and installers (ARIs) performance by reviewing FEEFO ratings.

Meetings for top management to review trends and to analyse findings are held regularly by the company. A top management meeting is held once a year at the beginning of the year (typically January). Management review is held at least once a year typically in the middle of the year; The 'Town Hall meeting' for management is held on two-monthly basis (Good Point), and generally follows the boardroom meeting (again held every two-months) as a means of disseminating information.

Areas for attention:

Good Point – the Town-Hall Meeting helps to ensure that all personnel are involved in business development.

Assessment of:	Interview with Top Management	**Auditee(s):**	Glenn Hayward - COO & QM	**Assessor:**	Graham Clapperton

Audit trails and sources of evidence:

Interview with Glenn Hayward - COO & QM

Evaluation and conclusions:

Business over the last 12 months has been good despite covid and Brexit. Some issues were experienced between April and June of 2020 as a result of the first UK lockdown, however the company has seen growth of 31% in sales over the course of the last year. In addition, in January 2020 the company received a significant amount of investment which helped in the recruitment of three new business development managers.

During March 2020 a large contract was also secured with Lambeth Council.

The company has developed a 'Covid19 policy' which mirrors government advice, and wherever possible working from home (WFH) arrangements have been developed for all staff. Production and quality personnel do attend the office and factory facility, where checking elements are recorded. The premises are Covid19 secure and have been subjected to increased rates of cleaning; liberal availability and use of hand sanitizers; and partitions/screens have been installed. Free face masks are available to anybody visiting the premises.

There have been no issues relating to Brexit as most of the suppliers are based in China and most sales are either UK or US based.

The ISO 9001 systems includes a large number of process is supported by policy (which is regularly reviewed). Continual improvement is driven into the business and a 'mission, vision, and strategy' document has been communicated to all personnel. Goals and objectives have been identified for the business, and also for individuals.

'Town Hall meetings' take place every two months and identify the state of the business and strategies for forward planning (Good Point). A series of 'stepping-stones' are used to identify future planning and strategies. The town Hall meetings generally are aligned and follow board meetings to help in communicating and disseminating information to all personnel.

Management review is generally held once a year and typically in the middle of the year. The management review identifies the last years analysis and evaluation and helps in identifying future objectives. The management review for 2021 also includes a review of the integration of ISO 9001, ISO 14,001, and ISO 45,001, together with time scales for certification by LR.

Monthly continual improvement meetings are held by the management team. These include product reliability reviews; Pareto analysis of all issues relating to non-conformance (whether internal, customer, or supplier related). The pareto analysis helps to identify significant trends, which are then reviewed to identify those which create the greatest risk. The higher risk elements are identified and appropriate corrective action applied prior to moving to the lower risk elements.

The current headcount is 42 personnel. This is up from 19 last year.

The interview met the requirements of iSO 9001: 2015

Areas for attention:

Good Point – the Town-Hall Meeting helps to ensure that all personnel are involved in business development.

Assessment of:	Sales	**Auditee(s):**	Will Goodwin - Head of Business Development	**Assessor:**	Graham Clapperton

Audit trails and sources of evidence:

Discussions with Head of Business Development

Evaluation and conclusions:

The company sells its products through recognised and authorised resellers and installers (ARIs). End users are not the company's direct customers. Authorised resellers and installers operate independent businesses across the UK, utilising products supplied by the company. The authorised resellers installers (ARIs) use the company's 'portal' to access a 'drawing tool'. The ARIs conduct site visits and identify their customer's requirements, which in turn are input into the company's drawing tool on the portal. This then creates a design and includes a list of products required. The ARI will then use the product list to help quote on the project.

Orders are received by the company through their electronic shop which is accessible on the website. The ARIs will order component parts as necessary for their particular projects and or installation and servicing requirements from the electronic shop. Data is entered into the system and compared against current stock levels. Where items are out of stock an 'out of stock' message is identified. Stock items available can be booked and the ARI may agree to either purchase including delivery or collect items directly.

Areas for attention:

None

Assessment of:	Installation Support & Services	**Auditee(s):**	Steven Dynan - Installation Support & Services Manager	**Assessor:**	Graham Clapperton

Audit trails and sources of evidence:

Discussions held with Support Services

Evaluation and conclusions:

The purpose of the installation and support services function is to liaise between the company and the ARIs. This includes communication with the actual installer of the products, handling of technical queries, product assistance, and clarification of building regulations; together with the monitoring of ARI capabilities and training; all of which are the prime functions of the department.

Dealing with issues relating to product or service requirements, and the investigation and logging of issues, and processing corrective action requests (CARs) together with identifying lessons learned, is also an important element of the department's responsibilities.

Occasionally containment actions, insurance claims, and the development of corrective action plans are also required.

Companies that wish to become part of the business (offering their services as agents and installation engineers) will contact the sales Department. The installation support and services department will then review the application and conduct 'due diligence' reviews to ensure that the proposed ARI is suitable to join the organisation. Contracts, terms and conditions, and minimum insurance requirements will also be reviewed prior to acceptance.

Training will then be undertaken by a number of on-line modules including methodologies on sales and marketing(including building regulations), design activities (which will require some degree of engineering skill), and an installation training module (for which plumbers with at least some form of national vocational qualification [NVQ] as a minimum - Institute of plumbing preferred , and electrical qualifications in accordance with NICEIC, will be required).

The sales and marketing training modules will need to be completed on-line. The design element will be completed on-line, and two designs must be submitted for qualification. The installation course will be completed on-line followed by a practical installation which will take place at the company's premises. On completion of the training the ARI will have access to all software and will be able to undertake projects. On completion of the first one or two designs, the company will carry out a review of design activities. On completion of the first 2 projects, the company will undertake on-site audits to review the activities. Reviews of on-site activities largely cover first-fix installation.

Commissioning will also be reviewed to ensure that the ARI has completed suitable plumbing and electrical works.

Once all training has been completed, certificates will be issued. The design installation and operation manual will also be available to the ARI for full review.

Once registered as an ARI the company will continually audit the ARI on an annual basis including first fix, second fix, and commissioning. Where problems are identified, suggested rectifications will be made. Photographic evidence will be required in the case of any see a are issues in order to closeout. Documentary evidence for closeout can be uploaded by the ARI through the partner page system.

The company will review any issues and see a ours raised buy a R eyes which can also be used for trend analysis and feedback. Wherever issues are identified these may be reviewed to cheque on training quality.

The company will maintain and update legislative changes, technique or Technical bulletins or UN standards and specifications. These are maintained in a document library.

Any new documentation raised by the company will be logged into the company's 'wiki site'. New contractual documentation and changes will be collated until a suitable number of documents are available to be issued as part of a contract renewal update. Non contractual documentation will be issued to the ARIs as emails.

The system meets the requirements of ISO 9001: 2015

Areas for attention:

None

Assessment of:	Procurement and Supplier Performance	**Auditee(s):**	Amaar Bokhari - Supply Chain Manager	**Assessor:**	Graham Clapperton

Audit trails and sources of evidence:

Sales Forecast 2021 (Spreadsheet)
Current Orders to Ship (Spreadsheet)
Monthly Management Review (Transonics) 21/02/2021
Stock Monthly Requirement Report (Spreadsheet)
Plumis Supplier Approval and On-boarding Process (Rev 1)
PO-06052 - Date 09/02/2021 - WATEC Fluid Handling System Co., Ltd
PO-06040 - Date 04/02/2021 - Altecnic Ltd
Certificate of Conformity - February 25, 2020

Evaluation and conclusions:

The company operates a system which monitors demand planning and supply planning. At present, the company

has no customer review management system (CRM) in place, however, two key fundamental elements are continually reviewed; high level forecasting agreed on a quarterly basis; together with a production plan/finished goods plan. These elements are reviewed to assist in planning on a monthly and where possible weekly basis.

The sales forecast for 2021 was reviewed (the financial year runs from April to March). The yearly fiscal budget is analysed, and values converted into parts. Current orders to ship including orders, current stock, after fulfilment, and safety stock, are reviewed to identify the quantities to be produced.

Product availability is monitored, and the database ensures that the amount of stock held can be quickly identified including the product details, location, quantities with stock held, the minimum quantity before reordering, and the reorder quantity. Occasionally these elements are reviewed and adjusted to accommodate changes.

When purchase orders are raised, the supplier details are quickly self-populated into the purchase order template. Auto-filling for appropriate part numbers and associated data helps ensure that the correct items are purchased.

A monthly management report is raised which identifies critical suppliers (those suppliers producing bespoke product for the company) and a review of their capacity planning is conducted. An example for supplier 'Transonics' monthly management review was tabled.

Stock monthly requirement reports are raised and reviewed on a 3- monthly cycle. These reports identify forecast need, quantities on hand, and quantities on order.

The quality log was reviewed. This identifies internal quality checking of product and quantities booked in. Acceptable quality levels were reviewed, and any failures recorded together with a description of the failure.

O rings appeared to be the only item where a limited shelf life is anticipated. Blanket orders are placed to ensure that suitable quantities can be purchased on a regular basis.

A new system is currently being developed for the approval and 'on-boarding' process for suppliers. The 'Plumis supplier approval and onboarding process' (Revision 1) was reviewed. In particular this process might be used where new requirement/product is identified. The system allows for filtering of potential suppliers and products, requests for quality information, an initial sample order, and the approval of those samples.

An internal approval process will then be followed to ensure that the new supplier is capable of supplying products of the right quality. Once approved, the first production order can be processed and a 'commercial and component agreement framework' can be established. Critical components will need an outgoing quality check-sheet and a certificate of conformity to be supplied with the goods.

The company has an official stance / definition /scope is below which is part of their component agreement framework.

Certificate of Conformance (CoC)

Certificate of Conformance Template (CoC) is a declaration of conformity. The COC document is a declaration by the manufacturer or importer that their product complies with the given approved type. The document shall contain the part number, description, serial or lot numbers, country of origin (where applicable), company details,

inspection results

The systems meet the requirements of ISO 9001: 2015

Areas for attention:

Opportunity for improvement (OFI) - there is no definition for the certificate of conformity.

Assessment of:	Focus Or Certificate Renewal Planning Visit	**Auditee(s):**	Iwona Kolinska	**Assessor:**	Graham Clapperton

Audit trails and sources of evidence:

Review:
Organisational changes; trends in customer satisfaction; complaints and other performance indicators, changes in the documented system; improvement projects; trends in raised non conformities during internal and external audits, quality of management reviews.

0 Minor or Major NC findings raised by BRE at the last audit (surveillance 4 / FV)
Integrated Management System not linked to 14001 / 45001 Standards as of yet
Performance against management system objectives on target.

Preview:
Developments in the organisation and its environment; strategy, policy and objectives in relation to these developments; the adequacy of the management system.

Codes: 107402,109015
Scope of certificate - refer to BRE Certificate
No significant changes to the business planned.

Planning:
Need for an additional visit (additional stage 1), points of attention during certificate renewal, appropriate audit themes; desirability specialised assessors; agreements on reporting, site visits, etc.

Numbers of effective employees: 42
Applicable Standard: ISO9001:2015

Evaluation and conclusions:

Review
The review of the previous assessment cycle performed by BRE, including the recent Certificate Renewal audit

reports for the silte and the clients internal audit programme in line with the management review process has identified no significant trends or incidents. There have been no formal customer complaints. A review of the nonconformance control process also identified no significant issue for the management system in meeting the client's requirements.

Preview
For the next assessment cycle the client is performing within the same parameters it has in the past. As a result, this will be taken in to consideration for the planning of the LRQA assessments over the next assessment cycle. The current scopes for the certificate were reviewed and found to be representative of the current management system. This is recorded as:

Scope:- The Design, Manufacture and Supply of water Mist, Fire Suppression Systems & Installer Support

Planning
A new plan was developed in conjunction with the client to enable an effective assessment of the management system. This has been defined and recorded as the Audit Programme / Plan [APP] and is contained within the Appendix of this report.

Areas for attention:

None

Assessment of:	Training	**Auditee(s):**	Glenn Hayward - COO & QM Laura Harris – HR Manager Robert Wilczynski – Production & Logistics Manager	**Assessor:**	Graham Clapperton

Audit trails and sources of evidence:

'mission-vision and strategy' policy
'initiation of a new employee' process
'Onboarding' process
Production skills matrix.
Records of fire-marshalls and first-aiders
Training Template for ESD Procedure (Electro-static discharge).

Evaluation and conclusions:

Training is coordinated by the HR function. Training for shop floor staff is further developed by the production manager.

The company has a ‘mission-vision and strategy’ policy from which objectives are developed and goals are rolled out to the management team.

‘Onboarding’ of personnel is controlled with a structured process referred to as the ‘initiation of a new employee’. This covers various stages; - Stage one is where contract is drawn up between the new/prospective employee and the company. Stage two is ‘pre preparation’ where requests for key information are submitted and documentation received. This will include P45 and P60 documentation, certification, and other appropriate documentation. From the company’s perspective, preparation of equipment such as laptops will take place. Stage three is the first-day induction for the new employee. A welcome pack will be issued, and safety process is discussed. The new employee will read all ‘core’ policies. Stage four is an induction to the particular job function with the line manager. Accountabilities will be assigned, and goals and objectives identified. A personal development plan will be created for management and administrative staff. Stage 5 is a review at the end of the six-month probationary period.

Production employees will be added to the production skills matrix. Each production operation has its own entry added to the skills matrix. Skill levels will be identified from 0 to 5. 0 identifies ‘no experience’; 1 identifies an ‘operator under training’; 2 indicates an operator ‘qualified’ however some supervision is still undertaken; 3 shows that the operator is ‘experienced’ and requires no supervision ; 4 indicates ‘highly experienced operator’; And 5 identifies a ‘master’ of the operation who can train others.

Files are maintained on the system for each employee. Administrative and management staff have accountabilities and skills logged into an individual folder. Reviews of the accountabilities objectives and goals qualification experience was undertaken.

Skills associated with ISO 9001: 2015 internal auditing are outsourced.

Records of fire-marshalls and first-aiders are maintained – with a system to flag up re-training.

The system meets the requirements of ISO 9000 and one 2015

Areas for attention:

None

Assessment of:	Assembly and Test	**Auditee(s):**	Robert Wilczynski – Production & Logistics Manager	**Assessor:**	Graham Clapperton

Audit trails and sources of evidence:

Work instruction AP08-AL for a new PCB 0244-AE
PS002 assembly instructions
Torque Wrench No PS002-02
Tool list AP08 version 0.1
instructions for preparing for pump assembly
a 'test a sticker'identifying AP 08 QC
Pressure Gauge Calibration Certificate (recording rising and falling pressure) 23/10/2020

Evaluation and conclusions:

A database is used for production planning controls. The main products assembled are SH11 (the head), AP 08 (the pump), CT01 (the controller), and DT-01 (the detector).

The company maintains suitable stock levels to supply ARIs with orders at short notice. The company commits to ship within 48 hours of receipt of an order, however, in 50% of the cases the order is shipped on the same day. The company operates a Kan-Ban system to accommodate this. The Kanban system relies on sales projections and stock inventory.

Information relating to production requirements are maintained and updated on a computer system and a large screen in the workshop ensures that all personnel aware of commitments to assemble and test product.

Work instruction AP08-AL for a new PCB 0244-AE was reviewed. The work instructions are held on the 'Asano' computer system and can be opened and accessed on laptops personal phones or tablets.

The PS002 assembly instructions were reviewed. Torque Wrench No PS002-02 was reviewed. The torque wrench is set at 2.5 Newton metres with a 22-millimetre socket.

A tool list identified as AP08 version 0.1 was reviewed. The instructions for preparing for pump assembly were reviewed.

Pump testing. Pumps are tested for earth bonding using a multi-meter. High voltage tests, leak testing with water, pressure testing at between 87 and 107 Bar (G); and breaker pressure testing at 120 to 165 Bar (G), are described in the assembly and testing instructions. Records of all test results are maintained on a spreadsheet.

On satisfactory completion of a 'test a sticker' is attached to the product identifying AP 08 QC and the serial number of the item. A power information label was also reviewed which identified the product as being suitable for

use on an AC system at 220 to 240 volts 50 to 60 Hertz.

The serial number of the PCB and the software revision status are also recorded on a production data spreadsheet this spreadsheet is renewed every 12 months.

Two pressure gauges are used. The pressure gauges have digital readouts and range from zero to 400 bar. Calibration was conducted on the 23rd of October 2020. Both rising and falling pressures were recorded.

Warranty labels are attached to products once testing has been completed. These labels are tamper proof. Full packaging details and instructions were reviewed. This also included methods for stacking and storing.

The system meets the requirements of ISO 9000 one 2015.

Areas for attention:

Good Point - Excellent Assembly instructions with good descriptions and pictures.

Assessment of: Design	**Auditee(s):** Jinwen Cen – R&D Manager	**Assessor:** Graham Clapperton

Audit trails and sources of evidence:

process for new product development
Design for personal protection system 4.7 (2020)
'Pivot base multi room' drawing number 0171-AL
supplier corrective action request (SCAR) 201203
Change control note CCN210204
Quality plan identified as document 0171-AL-QP.
Manufacturing instruction SH11 assembly instruction revision 03, version 02, 15/02/2021

Evaluation and conclusions:

The process for new product development was reviewed. The process starts with a collection of ideas and the selection of appropriate ideas. External and internal stakeholders may conduct a stakeholder workshop to help develop suitable ideas for design. The proof of the concept, mapping of the design activities, and a validation of assumptions will then take place.

Design activities are conducted to ensure that design of product meets appropriate standards. The company products are designed to meet the performance requirements of BS 8458: 2015 and
BS 9991: 2015. Design failure modes and effects analysis is undertaken together with the preliminary process failure modes and effects analysis. Design reviews are held, and records maintained.

The personal protection system 4.7 (2020) was reviewed. The first phase for 'planning' included internal and

external stakeholders, development of a product specification, the product development brief, and feedback from the London fire brigade and BRE. The design brief was developed to estimate resource is required both financial and time. to bring the design through development to product launch. This included investments in time and finance to prove the concept.

The second phase was a feasibility study, to conduct a design failure modes and effects analysis, produce a mock-up of the system, complete design review, and record the details in the software 'Asana'. Details relating to product cost were analysed. It is at this stage that the decision is made whether to continue with the design.

Third phase is the verification activity which covers the building of prototypes the identification of supply chain requirements, and testing of prototype products.

The fourth stage is the characterization of the design where the supply chain setup is reviewed, commercial setup and process flow are considered, process failure modes and effects analysis are reviewed, sales and marketing and quality control elements are established.

The fifth phase is the validation of the product, where qualification and testing, certification and testing requirements, process establishment, and production pilot runs, are all conducted, to plan the safe launching of the product.

The sixth phase which includes the training of installers and finalising the documentation.

Where returns are received from customers a returns failure mode and effects analysis system is established. An ICAR will be raised which will promulgate a change control note.

The system for change controls will then be followed. 'Pivot base multi room' drawing number 0171-AL was reviewed the drawing was clearly notated with the draftsman's initials the initials of the person checking, and also the initials of the person approving. Date of approval 29/03/2019. The drawing is currently revision 04 dated 08/02/2021.

Change control note CCN210204 was reviewed. This referred to supplier corrective action request (SCAR) 201203, against purchase order 05245. 119 components could not meet machine tolerances. The change note was reviewed by engineering, quality, manufacturing, production, and the supply chain,

A quality plan was reviewed. This was an 'outgoing quality plan' for supplier controls. The pivot base multi room quality plan identified as document 0171-AL-QP. This document referred to critical elements required for inspection and testing relating to every batch of product delivered.

Manufacturing instruction SH11 assembly instruction revision 03, version 02, 15/02/2021 for multi room sprayhead, document number SH11-A, and SH11-AP. The document proved to be an excellent method instruction for assembly and included simple stage breakdowns complete with photographs and details.

The systems meet the requirements of ISO 9001: 2015

Areas for attention:

Noone

04. Next visit details

Standard(s) / Scheme(s)	ISO 9001:2015	**Visit type**		Surveillance 1	
Audit days	1.00 DAY	**Visit start / end dates**		21-March-2022 / 21-March-2022	
Team	Graham Clapperton				
Site		**Audit days**	**Delivery Method**	**Remote Effort**	**Activity codes**
Unit 4, Phoenix Trading Estate,Greenford,GB		1.0 DAY	Onsite	0 DAY	107402

05. Appendix

1. Audit Programme/Plan

Both the audit plan and the programme are dynamic and must be in line with the client's developments. Any (last minute) changes are possible with valid reasons e.g. organisational changes, processes, management review results etc. Prior to the closing meeting the audit team should (re)confirm the programme and identify any changes, E.g. to the management system, extent, time or dates of the audit, competences...

Visit Type	Certificate Renewal	SV1	Focus Visit	Certificate Renewal	SV1	Focus Visit	Certificate Renewal
Due Date	02/02/21	April 22	April 23	Feb 24	April 25	April 26	Feb 27
Start Date	09/02/21						
End Date	19/02/21						
Audit Days	2	1	1	2	1	1	2
Separate assessment plan?	Y	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
Any change in workforce numbers that may impact visit duration (if yes add new number)	Y (42)	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
Opening meeting	R✓	✓	✓	✓	✓	✓	✓
Closing meeting	R✓	✓	✓	✓	✓	✓	✓
Changes to organizational context	R✓	✓	✓	✓	✓	✓	✓
Management Review	R✓	✓	✓	✓	✓	✓	✓
Internal Audits	R✓	✓	✓	✓	✓	✓	✓
Continual Improvement	R✓	✓	✓	✓	✓	✓	✓
Management of change	R✓	✓	✓	✓	✓	✓	✓
Corrective action	R✓	✓	✓	✓	✓	✓	✓
Complaint Management	R✓	✓	✓	✓	✓	✓	✓
Use of Logo (LR & Accreditation Marks)	R✓	✓	✓	✓	✓	✓	✓
Performance against the client management system objective	R✓	✓	✓	✓	✓	✓	✓
Audit outside normal working hours and various shift patterns	N/A	N/A	N/A	N/A	N/A	N/A	N/A
(1)							
Design	R✓		✓	✓		✓	✓
Sales	R✓		✓	✓		✓	✓
Procurement including Supplier Performance	R✓		✓	✓		✓	✓
Assembly & Test	R✓	✓		✓	✓		✓
Training	R✓	✓		✓	✓		✓
Installer support	R✓	✓		✓	✓		✓
Review, Preview and Planning			✓			✓	

1: Complete the list of organisation (parts), departments and/or processes of the different locations

Please Note, the letter 'R' in the above table denotes a Remote Audit activity

Scope

Any revised scope will be as agreed in formal correspondence between LR and the client or defined in section 4 of the previous LR visit report.

Scope	Design, Manufacturing and Supply of Water Fire Mist Suppression Systems and Installer Support
Exclusion	None

Visit start time (approximate)	09:00	Visit end time (approximate)	16:00
The actual start and finish times for the visit will be agreed at the pre-visit contact with the assessor and recorded in the report introduction.			

Additional information

Opportunities for improvement
If we identify opportunities to improve your already compliant system, we will either record them in the process table applicable to the area being assessed or in the Executive summary of the report if they can deliver improvement at a strategic level.

Confidentiality
We will treat the contents of this report, together with any notes made during the visit, in the strictest confidence and will not disclose them to any third party without written client consent, except as required by the accreditation authorities.

Sampling
The assessment process relies on taking a sample of the activities of the business. This is not statistically based but uses representative examples. Not all of the detailed nature of a business may be sampled so, if no issues are raised in a particular process, it does not necessarily mean that there are no issues, and if issues are raised, it does not necessarily mean that these are the only issues.

Legal entity
The accredited legal entity and client facing office that has provided the assessment service in this report is referenced in the applicable agreement for this service.

Generic audit objectives and team responsibilities
The generic audit objectives and team responsibilities are included in the Client Information Note 'Assessment Process'. Any visit specific objectives for the next visit will be recorded in the report of the previous visit and will be addressed through the visit plan for that visit. The assessment standard and roles of the audit team are defined in the assessment visit confirmation sent to the client.

Audit Criteria
The audit criteria consist of the assessment standard and the client's management system processes and documentation.

Additional observers
Any additional observers will be as formally communicated to the client.

2. Separate Assessment Plan

Note: if the visit involves more than one team member and is more than one day duration, an additional plan detailing the activities of each member of the team on each day will be required.

(9th February 2021 – Certificate Renewal Day 1 of 2)

09:00	Introductory meeting with management to explain the scope of the visit, assessment methodology, method of reporting and to discuss the company's organisation (approximately 30 minutes). The Team Leader will agree a time to meet with top management to discuss policy and objectives for the management system.
	<Graham Clapperton> (Team Leader)
09:30	Discussion of all outstanding issues from previous visits.
09:40	Management elements – Changes to the Management System; context; Scope; interested parties; polices; strategy; objectives; performance against objectives; Internal audits; non-conformance/corrective actions/root causal; customer complaints/satisfaction; Key performance Indicators Management review; change management; continual improvement; ; Use of Logo
11:00	Interview with Top Management
11:30	Sales
13:00	Lunch.
13:30	Installation Support and services
14:30	Procurement and Supplier Performance
16:00	Report writing.
16:30	Close.

(19th February 2021 - Certificate Renewal Day 2 of 2)

09:00	Review of findings from previous day. Review of the assessment plan for the day.
09:15	Training
10:30	Design
12:30	Lunch
13:00	Assembly and Test
15:00	Review of day's findings
15:15	Preparation of final report
16:00	Closing meeting with management to present a summary of findings and recommendations.

(TBA - 2022 – Surveillance Visit 1 (SV1) Day 1 of 1)

09:00	Introductory meeting with management to explain the scope of the visit, assessment methodology, method of reporting and to discuss the company's organisation (approximately 30 minutes). The Team Leader will agree a time to meet with top management to discuss policy and objectives for the management system. LR team briefing for a team of two or more assessors or (experts). <TBI> (Team Leader) Discussion of all outstanding issues from previous visits.
09:30	Management elements – Changes to the Management System; context; Scope; interested parties; polices; strategy; objectives; performance against objectives; Internal audits; non-conformance/corrective actions/root causal; customer complaints/satisfaction; Key performance Indicators Management review; change management; continual improvement; ; Use of Logo
11:30	Installation Support and services
12:30	Lunch.
13:00	Assembly and Test
14:30	Training
15:30	Report writing.
16:00	Closing Meeting.

Note; Information on the objectives of the various visits can be found in the Client Information included in the report or on our website www.lr.org. Furthermore on the website there are Client Information Notes available for the various visit types. The audit criteria and team members date and locations are also stated on the front page of the report. Scope of certification and roles and responsibilities of the audit team members are expressed in the Audit Program Plan.

3. Report Considerations

LR Report considerations		
Have there been any deviation from the original assessment plan:	No	If yes detail these in the introduction section of the report along with the reasons for the deviations
Have there been any significant issues impacting on the audit programme:	No	If yes detail these in the introduction of the report and amend the APP
Have there been any significant changes that affect the management system of the client since the last audit took place:	No	If yes detail these within the executive summary section of the report
Have any unresolved issues been identified during the assessment:	No	If yes detail these within the executive summary section of the report
Was the audit undertaken a combined or integrated audit:	No	If yes confirm what type of audit and the standards covered in the introduction to the report.
Was the organisation effectively controlling the use of the certification documents and marks:	Yes	If no document within the reporting table covering the mandatory elements
If applicable has the organisation taken effective corrective action regarding previously identified nonconformities:,	N/A	Record outcome in the findings log against the relevant findings.
Does the management system of the organisation continue to meet the applicable requirements and meet the expected outcomes:	Yes	If no details reasons within the executive summary of the report
Does the scope of certification continue to be appropriate to the activities/products/services of organisation:	Yes	If no then document the actions necessary in relation to the scope in the executive summary of the report and amend the APP as required.
Were the objectives of the visit as defined in the APP fulfilled during the visit:	Yes	If no detail the reasons and any necessary actions in the executive summary of the report and amend/update the APP