

Attachment 03

**THE COMPLETION AND DELIVERY OF NATIONAL**

**LEGIONELLA RISK ASSESSMENT**

**On NHSBT PREMISES**

|  |  |
| --- | --- |
| **TENDER REF NUMBER:** | **NHSBT1252/S/SP** |
| **TENDER RETURN DATE:** | **30TH September 2019** |

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* 1. **NHSBT - Background**

NHSBT is a special health authority, dedicated to saving lives. We provide a blood and transplantation service to the NHS, looking after blood donation services in England and transplant services across the UK. This includes managing the donation, storage and transplantation of blood, organs, tissues, bone marrow and stems cells, and researching new treatments and processes. NHSBT Estates and Facilities (E&F) are managed from four regions, North East, North West, South East and South West. Each region operates from three main hub centres. In total NHSBT are currently operating from eighty-four properties nationally.

* 1. **Brief Outline of Requirements**

An invitation to tender has been issued by NHSBT to procure a national service from a specialist consultancy to assist in the management and control of Legionella / water hygiene within NHSBT property by the undertaking of Legionella Risk Assessments in all the properties owned or leased by NHSBT.

The appointed Legionella consultancy will be required to identify and prioritise recommendations on any remedial works which are identified during the survey.

2. CONFIRMATION OF DOCUMENTS SUBMITTED

PROVISION OF SERVICES FOR: THE COMPLETION AND DELIVERY OF NATIONAL LEGIONELLA RISK ASSESSMENTS ON NHSBT PREMISES.

|  |  |  |
| --- | --- | --- |
| **Document Required** | **Document Name:** | **Submitted****(Yes/No)** |
| **Maximum Evaluation Points** |  |
| Details of any aspect of the specification that you are unable to meet in full. | Document A |  | 25 |  |
| To provide a brief company overview/profile, detailing the history/service provision/ how the organisation developed from conception to the present day. | Document B |  | 25 |  |
| To submit c.v.(s) of the assessor/assessors, who will be undertaking the required works of this service contract. The c.v.'s must detail both the assessor's knowledge and expertise in order to undertake the work required. | Document C |  | 90 |
| The tenderer shall provide a Sample Risk Assessment Report | Document D |  | 150 |
| The tenderer shall submit a valid UKAS ISO/IEC 17020:2012 certificate \* | Document E |  | 25 |
| The tenderer shall submit a valid Legionella Control Association affiliation certificate\* | Document F |  | 25 |
| The tenderer shall submit a proposed workplan with key milestones | Document G |  | 25 |
| The tenderer shall, provide unrestricted access to the on-line portal/database and Electronic Data Collection and Management Programme software proposed for use by NHSBT. This shall be capable of updating the Risk Assessments, providing dynamic real-time risk matrix scoring, based on the Planned Monitoring and Maintenance Programme and defect management employed on each site that has been assessed\*. | Document H |  | 385 |
| The tenderer shall submit their Health and Safety Policy, Quality Control and Environmental Management Certification | Document I |  | 25 |
| The tenderer shall identify the areas of assistance that will be required from NHS Blood and Transplant | Document J |  | 25 |

Signed: ………………………………………………………………

Name: ………………………………………………………………

Position: ………………………………………………………………

Duly authorised to sign tenders for and on behalf of:

Date: ………………………………………………………………

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Witness to authorised signature:

Signed: ………………………………………………………………

Name: ………………………………………………………………

Address: ………………………………………………………………

Date: ………………………………………………………………

**3. INVITATION TO TENDER**

NHSBT invites tenders, subject to these instructions, for the provision of services under the NHS Terms and Conditions for the Provision of Services (Contract Version) 9January 2018) – Attachment 01 and NHSBT Supplementary Conditions of Contract for the Supply of Services – Attachment 02 and the Particular Specification – Attachment 03.

Persons proposing to submit a tender are advised to read the Tender documents carefully to ensure that they are fully familiar with the nature and extent of the obligations to be accepted by them if the tender is accepted. It is recommended that the successful Tenderer/Consultant visit sites to ascertain and confirm asset listings prior to submission of their tender.

**3.1 EXTENT and scope OF PROJECT**

PROVISION OF SERVICES FOR: THE COMPLETION AND DELIVERY OF NATIONAL LEGIONELLA RISK ASSESSMENTS ON NHSBT PREMISES.

The Scope of the project must include, but not be limited to:

1. Plan, organise and attend all specified premises, currently owned and/or occupied by NHSBT, in order to carry out all Site Surveys in accordance with the “General Programme Requirements” described below. Access to third-party systems, supplying water facilities to NHSBT occupied areas, will be sought, and where available, will be provided to the consultant prior to the commencement of the risk assessment visit.
2. To collect, collate and analyse all Site Survey data and to prepare a suitable and acceptable Risk Assessment in accordance with the “General Programme Requirements” described below.
3. Upon completion of each day’s site survey, to provide to the Supervising Officer, in MS Excel format, a full and detailed listing of all ‘Urgent’ faults identified during that day’s surveying.
4. To deliver to the Supervising Officer, within the agreed work schedules, completed reports in the following formats:
5. Electronic copies, initially ‘in draft’, to enable review and approval of the reports by the Supervising Officer.
6. 2 x suitably bound hard copies of all ‘finalised’ reports.
7. Electronic copies, of all ‘finalised’ reports, in MS Word/MS Excel/Acrobat pdf.
8. Separate electronic copies of all ‘prioritised faults and recommendations’ in MS Word/MS Excel.
9. To provide all NHSBT specified users, unrestricted access to an on-line portal/database used to access and store all risk assessment reports and asset data.
10. To provide all NHSBT specified users, unrestricted access to an Electronic Data Collection and Management Programme software. Upon completion of the Risk Assessments, the information gathered shall be directly used to populate, a contractor provided, suitable and acceptable Electronic Data Collection and Management Programme software. This shall be capable of updating the Risk Assessments, providing dynamic real-time risk matrix scoring, based on the Planned Monitoring and Maintenance Programme and defect management employed on each site that has been assessed.
11. To provide, on completion of the Risk Assessment, advice and guidance on remedial actions to be undertaken.

**3.2 AGREED TERMS OF REFERENCE**

In accordance with BS 8580:2010 ‘Water Quality Risk assessments for Legionella Control – Code of Practice’ - the following items/systems are to be included/excluded from the Risk Assessment process:

1. Town incoming main supply and Bore hole supply
2. Domestic Cold Water Services – Storage and Distribution
3. Domestic Hot Water Services - Generation Storage and distribution
4. Faucets, showers, bib taps, etc.
5. Medical / Laboratory equipment
6. Thermostatic Mixing Valves (TMV)/Thermostatic Mixing Taps (TMT)
7. Water Dispensers/Water Coolers and Ice Making Machines
8. Fire-fighting Systems (which share supply with the domestic water)
9. Emergency Showers/Eye Washers
10. Portable humidifiers
11. Portable Air Conditioning Units
12. Mobile Screening Vehicles
13. Blood heater/cooler devises
14. Temporary buildings/facilities
15. Wet Air Handling Systems
16. All other systems that the Risk Assessor considers to pose a risk.

**3.3 General Guidance Documentation to be complied with as part of the project:**

* The Water Regulations Advisory Scheme’s (WRAS) ‘Water Regulations Guide’, and any other requirements of the local water undertaker;
* The Water Supply (Water fittings) Regulations 1999.
* The Water Supply (Water Quality) Regulations 2016.
* HSE Legionnaires’ disease The control of legionella bacteria in water systems.  Approved Code of Practice and guidance on regulations: L8 (Fourth edition) Published 2013
* HSE Legionnaires’ disease: Technical guidance Part1: The control of legionella bacteria in evaporative cooling systems: HSG274 Part 1 Published 2013
* HSE Legionnaires’ disease Part 2: The control of legionella bacteria in hot and cold water systems: HSG274 Part 2 Published 2014
* HSE Legionnaires’ disease: Technical guidance Part 3: The control of legionella bacteria in other risk systems: HSG274 Part 3 Published 2013
* BS 1710 – 2014  -  Specification for identification of pipeline services.
* BS 8558:2015 provides complimentary guidance to BS EN 806. It is a guide to the design, installation, testing, operation and maintenance of services supplying water for domestic use within buildings and their curtilages.
* BS EN 806-5:2012 Specification for installations inside buildings conveying water for human consumption - Operation and maintenance.
* BS EN 806-1:2000 Specifications for installations inside buildings conveying water for human consumption -General.
* BS EN 806-2:2005 Specifications for installations inside buildings conveying water for human consumption – Design.
* BS EN 806-3:2006 Specifications for installations inside buildings conveying water for human consumption - Pipe sizing. Simplified method.
* BS EN 806-4:2010 Specifications for installations inside buildings conveying water for human consumption – Installation.
* BS 8551-2015 Provision and management of temporary water supplies and distribution networks
* BSI PD 855468-2015 Guide to the flushing and disinfection of services supplying water
* BS 8558-2015 Guide to the design, installation, testing and maintenance of services
* BS EN ISO 5667-1 2006 Water Quality - Sampling
* BS 8554 2015 - Code of practice for the sampling and monitoring of hot and cold water services in buildings
* BS7592:2008 – Sampling for Legionella bacteria in water systems – Code of practice.
* BS 8580:2010 – Water Quality – Risk assessments for Legionella Control – Code of Practice.
* The Health and Social Care Act 2008 COP of Practice on the prevention and control of infections and related guidance
* HTM 04-01 Part A, B and C and Supplement (2017) -Safe Water in Healthcare Premise: 2016
* Heating and ventilation systems Health Technical Memorandum 03-01: Specialised ventilation for healthcare premises.
* Department of Health 'Performance requirements for building elements used in healthcare facilities Version:0.6:England'
* Responding to the detection of legionella in healthcare premises Guidance for PHE health protection teams
* HBN 00-10 Part C Sanitary assemblies 2013.
* Model Engineering Specification C07 1997 rev 3.
* PHE Hospital waters – how to ensure high quality microbiological testing:2014
* Guidance on the Control and Prevention of Legionnaires’ Disease in England Technical Paper 1 - Disease Surveillance: 2010
* Public Health England (PHE) – Examining food, water and environmental samples from healthcare environments – Microbiological Guidelines:2013.
* World Health Organisation (WHO) – Water Safety in buildings:2011.
* BS 8580:2010 – Water Quality – Risk assessments for Legionella Control – Code of Practice.
* BSRIA – Guide to Legionellosis Risk - Assessment Procedures - 2001.
* BSRIA – Guide to Legionellosis – Temperature measurements for hot and cold water services – 1994.
* BISRA Guidance To The Standard Specification For Water Services Risk Assessment.

3.4 Conditions of Tender

The works shall be carried out as a Fixed Price Contract with NHSBT.

Every tender submission received by NHSBT shall be deemed to have been made subject to these instructions, unless NHSBT have expressly agreed in writing to the contrary.

Any alternative terms and conditions offered on behalf of a tender shall be deemed to have been rejected by NHSBT.

Any matters of doubt or difficulty should be cleared with the nominated representative of NHSBT identified in the invitation to tender via the messaging facility of the Bravo Solutions ePortal. Other than the nominated representative, NHSBT officers or other representatives are not empowered to make alterations or agree changes.

Tenders must be for the supply of the whole service based upon the terms and conditions of the Contract. Tenders for part or parts only of the services or made subject to alternative or additional terms or conditions will be rejected.

**3.5 Award Criteria**

The Employer will make its decision based upon the following Award Criteria and weightings:

|  |  |
| --- | --- |
| **Section** | **Evaluation score** |
| **Quality** - Compliance with Specification, Technical Skills, Knowledge and Experience | 800 points |
| **Cost** | 200 points |

The evidence to support the evaluation process will be sourced from your Technical and Commercial Submissions.

**Assignment of Intellectual Property Rights**

On issue of data the Supplier confirms and agrees that all Intellectual Property Rights in and to such data and any other output developed by the Supplier as part of the Services in accordance with the Specification and Tender Response document, shall be owned by NHSBT.

**3.6 Eligibility to Tender**

Tenderers shall be eligible to submit a tender **only** if all the following conditions are met. No tender will be accepted from tenderers who fail to meet any of the eligibility conditions listed below:

1. Tenderers must be accredited to and operate **ISO/IEC 17020:2012.**
2. Tenderers shall be members of The Legionella Control Association and **must** be registered to provide the following services for Healthcare Organisations: A – Healthcare Risk Assessment.
3. Tenderers shall operate an externally audited and certificated Quality System.
4. Tenderers shall operate an externally audited and certificated Environmental Management System.
5. The data integrity provided by the Tenderer under contract will comply with:-

**Data integrity and the ALCOA+ principle**

 Regulatory authorities originally defined five criteria for data integrity, referred to by the acronym **ALCOA**. The ALCOA principles describe the criteria data must fulfil to ensure data integrity.

a) **A**ttributable: Data captured in a record must be assigned to a person or a computer system.

b)    **L**egible: Data must be readable, understandable and allow a clear picture of the steps that have been executed.

c)    **C**ontemporaneous: Data must be recorded at the time it is generated.

d)    **O**riginal: Data must be available as the file or format in which it was originally generated (e.g. electronic raw data or original paper record of a manual observation).

e)    **A**ccurate: Data must be correct, truthful, complete and reliable.

With ongoing developments, these five criteria were later expanded to nine by the European Medicines Agency for GCP, and are now referred to as **ALCOA+**. According to ALCOA+, data must also be complete, consistent, enduring and available.

**3.7 Competence of the risk assessor**

The person(s) appointed to carry out the risk assessments must be able to demonstrate that they have specialist knowledge of:

The type of systems to be assessed; *Legionella* bacteria; relevant water treatment; medical equipment and devices utilising water; and are competent and experienced to carry out the assessments in a healthcare environment.

NHSBT reserve the right to request Risk Assessors provide their current & up-to-date Curriculum Vitae.

The successful Tenderer shall be responsible for ensuring that all persons employed on works covered by the contract shall have sufficient technical knowledge, training and experience to enable them to carry out the works in a competent and safe manner. The successful Tenderer shall ensure that the works do not interfere with the safe working of any other NHSBTservice or equipment. The successful Tenderer shall properly supervise all the works on site.

**3.8 PREPARATION TO TENDER**

Various documents and drawings containing relevant information on the domestic water/air system/plant of the premises included in this tender, can be made available for inspection. This information can be made available via the Supervising Officer following *a written and specific* request made via the message facility on the NHSBT Bravo Solutions ePortal.

**3.9 BASIS FOR THE AWARD OF CONTRACT**

NHSBT is not bound to accept the lowest or any tender. The contract will be awarded on the basis of the most economically advantageous offer, consisting of compliance with the Specification, demonstration of Technical Skills, Knowledge and Experience and Cost.

The Supplier shall not Sub-contract any part of the Risk Assessment survey service as described within this Specification.

NHSBT will not incur any expense in connection with the preparation of tender submissions.

**3.10 Compliance with Site Policies and Procedures (Site Rules)**

a) Tenderers attending NHSBT premises shall be familiar with these policies and procedures. No allowance shall be made for ignorance owing to the successful Tenderer’s neglect in this respect. A copy of the Site Policies and Procedures are available upon request from the Supervising Officer.

b) Any clarification relating to the meaning or application of these policies and procedures should be sought, in writing, from the Supervising Officer.

c) It shall be understood that any disregard for these policies and procedures can result in removal of staff from the site, termination of contract, stoppage of work and financial penalties.

**3.11 Site Conditions**

The successful Tenderer shall be deemed to have examined the site conditions of the tender submission and the Schedule of Works.

The successful Tenderer is encouraged to visit sites before submitting a tender response and to ascertain for himself the site conditions and make any measurements or to obtain any information or details that may be required for the execution of the works.

No allowance shall be made for ignorance due to the successful Tenderer’s neglect in this respect.

**3.12 Tenderers Equipment**

All measuring equipment must be accompanied by a valid and acceptable calibration certificate.

The successful Tenderer shall provide at his own expense, all materials, labour, haulage, tools and equipment necessary to execute and complete the work covered by this specification. No materials or equipment will be available from NHSBT.

**3.13 Interference Suppression**

All equipment used by the successful Tenderer for the works on site shall be suppressed so as to cause no interference with apparatus in use by NHSBT.

**3.14 Security**

The successful Tenderer shall ensure that his employees comply with security arrangements and procedures of the site in being at the time.

It is essential that the successful Tenderer’s employees visiting site are able to produce a definite form of identification, acceptable to NHSBT’s Site Manager at the time. Entry will be refused if this requirement cannot be met.

The successful Tenderer shall ensure their employees do not visit any other part of NHSBT sites for purposes other than in connection with the works on the site.

When NHSBT requires, on ground of inefficiency, public interest or misconduct, the successful Tenderer shall remove his employee from the works/site.

It is essential that the successful Tenderer shall ensure that all plant room and roof doors are kept secure at all times.

**3.15 Fire Precautions**

The successful Tenderer shall adhere to the current Standard Fire Precautions of NHSBT in being at the time the successful Tenderer submits his tender.

Please refer to the Site Policies and Procedures.

**3.16 No Smoking Policy**

NHSBT operates a no smoking policy. There is strictly no smoking permissible anywhere on any NHSBT premises.

**3.17 Health and Safety**

The successful Tenderer shall ensure that all the works on site are carried out within the Health and Safety at Work Act 1974.

The successful Tenderer shall provide his employees with all necessary safety equipment.

The successful Tenderer shall ensure that all chemicals brought on to site are accompanied by the relevant data/COSHH sheets and that they are removed from site at the end of each working day. No chemicals shall be left on site overnight without prior written agreement and authorisation from the Supervising Officer.

The successful Tenderer shall comply at his expense with all Acts of Parliament and all statutory orders, regulations and bye-laws applicable to the contract including all Health and Safety Regulations and approved practices.

The successful Tenderer shall comply with any regulation that becomes statutory during the contract period.

**3.18 CoNSULTANTS Attending Site**

Prior to contractors attending site, arrangements need to be agreed with the Supervising Officer.

All contractor employees must be vetted and deemed suitable for the appointment along with having undertaken the Good Manufacturing Practice (GMP) training as required by NHSBT.

NHSBT shall be informed of the names of all the employees that may attend NHSBT‘s sites in connection with this service provision. If NHSBT requests for any reason, the contractor will remove any person employed under the contract from the site with immediate effect.

All the employees attending the site must have a form of identification to be agreed. Employees need to be of a smart and clean presentation and have a pleasant disposition.

Provisions must be made in respect of H&S issues surrounding the contractor’s employees working on NHSBT sites i.e. familiarisation with the site policies and procedures such as fire alarms, fire training, system user area risks, security and confidential issues, emergency actions.

**3.19 Programming of Works**

The successful Tenderer shall submit to the Supervising Officer for approval, a schedule of works detailing the sequence of works to be carried out ensuring one week’s notice prior to commencement of each set of works. In any event the successful Tenderer shall confirm the situation prior to any site attendance with the Supervising Officer prior to each service visit.

**3.20 Damage**

Damage resulting from the works to building fabric, decor, service floor coverings etc., shall be rectified by NHSBT and charged to the successful Tenderer.

**4. INTRODUCTION TO THE AIM AND SPECIFICATION**

The aim of this tender is to address the following:

**PROVISION OF SERVICES FOR: THE COMPLETION AND DELIVERY OF NATIONAL LEGIONELLA RISK ASSESSMENTS ON NHSBT PREMISES**.

**4.1 General PROGRAMME REQUIREMENTS:**

**4.1.1 Aim of risk assessment**

A suitable and sufficient Legionella risk assessment compliant with: a) HTM 04-01 Parts A, B and C; b) UKAS ISO/IEC 17020:2012; c) HSG274 Part 2 (2014) – ‘The control of *Legionella* bacteria in hot and cold water systems’; d) BS 8580 – ‘Water quality: risk assessments for *Legionella* control – Code of Practice’; e) BSRIA’s (1999) FMS 4/99 – ‘Guidance and the standard specification for water services risk assessment’; and f) BSRIA’s (2015) BG 57/2015 – ‘Legionnaires’ disease – risk assessment’ shall be carried out on premises currently owned or occupied by NHSBT, In order to identify and assess the risk of Legionellosis and water quality issues from work activities and water sources on the premises and organise any necessary precautionary measures.

**4.1.2 Methodology**

**All risk assessments shall be carried out in strict accordance to UKAS ISO/IEC 17020:2012 and BS 8580:2010 – Water Quality – Risk assessments for Legionella Control – Code of Practice.**

All risk assessments shall include, but not be limited to:

1. Full description of systems with explanations of which areas and systems are served by each individual system.
2. The condition of all systems.
3. Temperature profiles.
4. Schematic drawings which will clearly identity all tanks, calorifiers, valves, pipework distribution and any process systems identified.

Systems which are susceptible to colonisation by Legionellae, and which incorporate means for creating and disseminating water droplets, will be identified, and the risk they present shall be assessed.

Hot Water Systems that are potentially capable of causing scalding shall be identified and the risk they present shall be assessed. Risks must be assessed not just for the routine operation of the systems, but also in unusual circumstances, breakdown, abnormal operation, and commissioning.

Risk assessments must also be carried out on all process and equipment, such as: portable humidifiers; nebulisers; etc, and not just on the domestic water system. In order for these requirements to be achieved, Departments other than Estates, such as Medical Engineering and Infection Prevention and Control, Nursing etc, must be involved in the process.

The scope of the risk assessments shall extend but not be limited to:

1. Town incoming main supply and Bore hole supply
2. Domestic Cold Water Services – Storage and Distribution
3. Domestic Hot Water Services - Generation Storage and distribution
4. Faucets, showers, bib taps, etc.
5. Medical / Laboratory equipment
6. Thermostatic Mixing Valves (TMV)/Thermostatic Mixing Taps (TMT)
7. Water Dispensers/Water Coolers and Ice Making Machines
8. Fire-fighting Systems (which share supply with the domestic water)
9. Emergency Showers/Eye Washers
10. Portable humidifiers
11. Portable Air Conditioning Units
12. Mobile Screening Vehicles
13. Temporary buildings/facilities
14. Wet Air Handling Systems
15. All other systems that the Risk Assessor considers to pose a risk

As mentioned above, the objective of the Risk Assessment is to institute management procedures to ensure that compliance is continuing and not notional. One of the purposes of the exercise is to be able to demonstrate that management has identified all the relevant factors, has instituted corrective or preventive action, and is monitoring that the plans are being implemented. In addition, the Risk Assessment should enable a valid decision to be made about:

1. the risk to health, i.e. whether the potential for harm to health from exposure is reasonably foreseeable unless adequate precautionary measures are taken,
2. what measures for prevention, or adequate control to minimise the risk from exposure to Legionella, should be taken,
3. the particular means by which exposure to scalding hot water is to be prevented, or
4. if prevention is not reasonably practicable, the particular means by which the risk of scalding from hot water is to be minimised.

The risk assessment shall include identification and evaluation of potential sources of risk and:

1. the particular means by which exposure to Legionella is to be prevented; or
2. if prevention is not reasonably practicable, the particular means by which the risk from exposure to Legionella is to be minimised.

Factors to be considered in the risk assessment - There is a chain of events leading to the infection of a human by *Legionella spp.* which should be considered in any risk assessment process:

1. contamination;
2. amplification;
3. transmission;
4. exposure;
5. host susceptibility

The risk assessment shall include Risk Analysis on the following areas of the systems:

**4.1.3 Cold Water Services - Storage**

1. Physical condition and hygiene standard of all associated Water Storage Tanks.
2. Design and configuration of all associated Water Storage Tanks.
3. Capacity requirements and available storage capacities of all associated Water Storage Tanks.
4. Temperature profiles of all associated Water Storage Tanks.
5. Water Supply Regulations parameter compliance of all associated Water Storage Tanks, including location and accessibility.

###### 4.1.4 Cold Water Distribution

1. Physical condition of all accessible (visible) associated distribution pipe-work.
2. Design and configuration of all accessible (visible) associated distribution pipe-work.
3. Temperature profiles of all associated distribution services and outlets.
4. Presence of dead-legs and areas of low-flow/low-use within all the associated distribution services.
5. Usage considerations of all associated distribution services.

**4.1.5 Hot Water Services - Hot Water Generation and Storage**

1. Physical condition of all associated Hot Water Generating Units.
2. Design and configuration of all associated Hot Water Generating Units
3. Temperature profiles of all associated Hot Water Generating Units, to include; flow, return and drain temperatures.
4. Capacity requirements and available storage capacities of all associated Hot Water Generating Units.
5. Presence of temperature stratification within associated Water Storage Calorifiers.

**4.1.6 Hot Water Distribution**

1. Physical condition of all accessible (visible) associated distribution pipe-work.
2. Physical condition of all associated facilities, outlets, showers, etc.
3. Design, configuration and accessibility of all accessible (visible) associated distribution pipe-work.
4. Temperature profiles of all associated distribution services and outlets.
5. Presence of dead-legs and areas of low-flow/low-use within all the associated distribution services.
6. Usage considerations of all associated distribution services.
7. Presence of space-heating within all associated distribution pipe-work.
8. Condition, temperature profiles and operation status of all showerheads within all associated distribution services.
9. Condition, temperature profiles, accessibility and operation status of all Thermostatic Mixing Valves (TMV) and Thermostatic Mixing Taps (TMT) within all associated distribution services.
10. Presence of undesired lengths of blended water pipe-work within all associated distribution services.
11. Temperature profiles of associated "direct-fed" distribution services and all "blended" outlets.

**4.1.7 Air Conditioning - Air Handling Units**

1. Physical condition of all associated Air Handling Units.
2. Design, configuration and accessibility of all associated Air Handling Units.
3. Method of humidification and operation status of all humidifiers within all associated Air Handling Units.
4. Condition, design and configuration of drip-trays within all associated Air Handling Units.
5. Condition, design and configuration of glass traps/U-bends within all associated Air Handling Units.
6. Physical condition and hygiene standards of duct-work of all associated Air Handling Units.

**4.1.8 TMVs and TMTs**

1. Condition, temperature profiles, accessibility and operation status of all TMVs/TMTs within all associated distribution services.

**4.1.9 Showers and associated shower heads**

1. Condition, temperature profiles, accessibility and operation status of all showers and associated shower heads within all associated distribution services.

**4.1.10 Portable humidifiers**

i. Type of units in use.

ii. Physical condition of units.

iii. Water sources used.

iv. Usage profiles.

v. Maintenance Programme and Hygiene Standards employed.

**4.1.11 OTHER ITEMS**

Other items of plant associated with the potential of Legionella bacterial growth and proliferation and the possibility of aerosol production and dissemination, including:

* Medical / Laboratory equipment
* Ornamental fountains.
* Ice-making machines, drinking fountains and other vending machines incorporating the use of water.
* Lathes and cutting tools.
* Irrigation facilities.
* Handling of vacuum-bagged compost.
* All other items of plant or systems associated with the potential of Legionella bacterial growth and proliferation and the possibility of aerosol production and dissemination.
1. Type of unit.
2. Potential to cause an aerosol.
3. Potential of aerosol being inhaled.
4. Physical condition units and associated plant.
5. Location, design, configuration and accessibility of all units.
6. Shared facilities (e.g. fire hose reels and irrigation)
7. Water Treatment Programmes in place and their efficacy (if applicable).
8. Maintenance Programme and Hygiene Standards employed.

**4.1.12 Management - Maintenance, Monitoring and Record Keeping**

1. Presence of and adequacy of all implemented Monitoring and Maintenance Programmes in place.
2. Presence of and adequacy of all implemented Record Keeping Programmes in place.
3. Presence of and adequacy of all implemented Auditing Programmes in place.
4. Duty holder, the responsible person and any deputies are clearly identified in the written scheme;
5. Roles of all responsible persons and parties (e.g. consultants, facilities management companies and water treatment companies) are clearly defined and contact details for these persons and parties are readily available;
6. Lines of communication and the reporting structure are clearly stated in the scheme; and
7. Tasks to be undertaken by each individual or party are outlined clearly with the necessary frequency of the tasks.

All areas listed above will be measured and expressed numerically indicating the contribution of each area to the overall Risk.

**4.1.13 Preparation of Remedial Works “Priority Charts”.**

From all data and information gathered during the risk assessment, a listing of Risk of Legionellosis Priority shall be produced for each site/building surveyed and a detailed Remedial Works priority listing shall then be produced in order to allow for the correct scheduling of all proposed works.

**4.1.14 Schematic Diagrams And Photographic Representation**

Schematic diagrams shall be produced for each system surveyed and shall include schematic representation of all major distributions and associated plant installation/configuration. The schematic diagrams shall be based on a non-intrusive basis and will be based on pipe-work/plant accessibility.

Electronic photographs shall be included in the report to illustrate the status and condition of the system surveyed and to highlight particular problems identified during the survey process.

**4.2 Post-risk assessment requirements:**

**4.2.1 Interim Reports**

For all buildings/areas assessed to be of Moderate Risk or higher, the Risk Assessor/Consultant shall issue an “Interim Problem Notification Form” indicating any necessary immediate corrective and remedial actions that need to be carried out.In addition, the notification shall indicate the Short/Medium-term and Long-term corrective and remedial actions that need to be carried out.

**4.2.2 Consultancy Memoranda**

Any additional instructions and advice from the Risk Assessment Consultant shall be in the form of a “Consultancy Memorandum”, which shall clearly indicate the nature of any faults/problems discussed and the resulting Risk caused. In addition, any corrective action or remedial works required, shall be clearly stated and listed and suitably allocated and prioritised in terms of urgency.

**4.2.3 ON-LINE PORTAL/DATABASE FOR ACCESS AND STORING OF RISK ASSESSMENT REPORTS**

The contractor shall provide, at his own expense, a safe and secure on-line portal/database to allow, user-specific access and storage of all risk assessment reports and asset data. The use of this facility must not be user number restricted and shall allow access to all relevant NHSBT staff.

**4.2.4 Electronic Data Collection and Management Programme software**

Upon completion of the Risk Assessments, the information and data gathered shall be directly used to populate the Tenderer’s proposed-for-use, suitable and acceptable Electronic Data Collection and Management Programme software capable of managing all aspects of Water Quality Management and Control data collection, data analysis and reporting. This shall also be capable of updating the Risk Assessments, providing dynamic real-time risk matrix scoring, based on the Planned Monitoring and Maintenance Programme (carried out by others on behalf of NHSBT) and defect management employed on each site that has been assessed. The use of this facility must not be user number restricted and shall allow the use of the software by all relevant NHSBT staff and Water Hygiene/Maintenance contractors for the delivery of their contract requirements.

The successful Tenderer shall also allow in their tender submission for the training of all ‘administrator-level’ relevant NHSBT staff.

In addition, the software shall include, but not be limited to, the following:

i. Risk Assessment Management

* Automatic, real-time updating of Risk Assessments
* Automatic Risk Assessment Report Production
* Automatic, real-time production of Risk Score Matrix
* Automatic, real-time Programme Status Audits

ii. Asset Management

* Automatic, real-time management of Asset Operating status and Condition
* Bar-code or Manual Asset recognition
* Real-time Asset History

iii. Operative Management

* On-going Management of operative “Time Allocation” and “Holiday Planner”
* On-going Management of operative “Training Status”
* On-going Management and Monitoring of operative equipment

iv. Contractor Management

* Automatic, real-time Management of Contract status
* Automatic, real-time Management of Contractor staff suitability
* Automatic, real-time Management of Task Completion
* Automatic, real-time Management of Contract Invoicing Status

v. Scheduled Test Programs

* Clear display of PPM Programme scheduled test programs – plant and site specific
* Scheduled items status - not started, started, completed, not completed, rescheduled
* Responsibility for work - client, service provider,
* Separate frequency for each day - daily, weekly, monthly, quarterly, 6-monthly, annually
* Prioritisation of outstanding works relative to manpower/resource availability
* Manpower time allocation and holiday planning pertaining to the PPM Programme
* Job specifications and instructions
* Manual printing of all tasks completed when necessary

vi. Paperless PDA / Smart Device inspection and monitoring task completion

* Automatic uploading of all pending tasks – operator, date, site and plant specific
* Operator specific Task instructions and paperless form completion using handheld PDAs / Smart Devices
* On-the-job help and instructions for the operator
* Automatic real-time downloading of all collected task data to central processing terminal
* Paperless communication between the various users
* On-line, task and process, training for all users

vii. Non-Conformities **Defect-Log**

* Automatic, real-time generated and Risk Prioritised Defect-Log
* Accurate and “Fault-specific” Comments and Recommendations
* Fault “Date Management” Status
* Automatic Fault Rectification responses
* Automatic “Remedial Works” Planning and Scheduling
* Automatically, real-time, generated Non-Conformities from inspection parameters
* Automatically, real-time, generated and managed display of all Non-Conformities, date, site, task, plant specific
* Automatically generated Prioritised Recommended Actions
* Non-Conformities Remedial Action Instructions and Authorisation
* Report on screen or print all Non-Conformity details, date, site, task, plant specific
* Automatically, real-time, generated emails for Non-Conformities and general communication between users
* Automatically, real-time, generated Audit reports for the Status of Legionellosis Management & Control across the site

viii. Usage Evaluation and Flushing Process

* Easy to follow and use Usage Evaluation and Flushing electronic pro-forma on each remote user’s terminal
* Automatically generated reminder of pending Usage Evaluation and Flushing task
* Automatically generated responses to central processing terminal for “User Task Compliance” status
* Listing of all facilities reported as infrequently used and flushed
* Listing of all facilities reported for removal
* Automatically, real-time, generated emails for Non-Conformities and general communication between remote users and administrator
* On-line, task and process, training for all users
* Automatically, real-time, generated Audit reports for the Status of Usage Evaluation and Flushing across the site

**ix. Capital Planning Management**

* On-going Management of all New Works and Refurbishments
* Automatic, real-time Inter-Department Communication
* Automatic, real-time Management of Capital Works Management

x. Security and Data Storage

* Automatic data back-up
* Non- changeable back-up format
* Completely searchable data, including all archived data

**xi. Web Based Portal running on a secure hosted server**

* Supported in all modern browsers
* An internet connection (via corporate LAN/WAN or Broadband)
* Handheld PDAs running Windows Mobile 6 or 6.5, Smart Devices with internet connection, IOS Devices running IOS9 or above, Android Devices running 5.0 or above
* Windows Mobile Device Centre or Microsoft Active Sync 4.5 (Free Download from the Microsoft Website) when using Handheld PDAs.

**5. COMMENCEMENT AND DURATION OF CONTRACT**

The successful Tenderer is required to commence the commission within four weeks of receipt of official order and continue until the satisfactory completion of all, inclusive Risk Assessment surveying and Report presentation.

**5.1 SCHEDULING**

The successful contractor is required to prepare and submit to the Supervising Officer a schedule of visits indicating the expected date of each visit to each site.

**5.2 MOBILISATION**

The successful contractor shall mobilise their ‘Contract Team’ by ensuring that all members of the team are suitably selected and briefed, by the Supervising Officer, of the contractual requirements including: Specific Health & Safety issues; working environment peculiarities; and equipment check.

Any proposed changes to the membership ‘Contract Team’, whether Supervisor and/or Risk Assessor, shall be notified in writing to the Supervising Officer for approval and before being deployed on NHSBT premises. Notification of such proposed changes shall be supported by the inclusion of all relevant CVs and training certificates for any new members of the team.

**5.3 SITE AND SYSTEMS FAMILIARISATION**

Once the Contract Team has been fully prepared, it must attend site and meet with NHSBT representatives in order to agree any security and access requirements and any limiting working restrictions. At this time, the Contract Team shall be provided with all/ any available drawings, property listing and numbering and notified of any recent or on-going issues pertaining to Legionellosis Management & Control.