

Technical Specification

Open Procedure

For the Provision of Maintenance Services Issued by

University Hospitals of Morecambe Bay NHS Foundation Trust

Reference Number: LGM36926

Tender Reference: 2023/S 000-037442

Maintenance Contract

**Verification of Critical Ventilation Systems in accordance with HTM 03-01,
HSG 258 and COSHH - in particular Regulation 9, regarding LEV**

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Introduction

This document provides full details of the Client's requirements for Verification of Critical Ventilation Systems in accordance with HTM 03-01, HSG 258 and COSHH - in particular Regulation 9, regarding LEV.

You are required to complete all sections in the accompanying Invitation to Tender response document (ITT), and provide pricing in the accompanying Pricing Schedule.

All equipment is to be maintained in line with the following Specification.

Please note any bids received that deviate from any aspect of this Technical Specification will be classed as variant bids, and bidders may be excluded from the procurement process.

Contract overview

University Hospitals of Morecambe Bay NHS Foundation Trust (UHMB) is seeking to contract for the provision of a service to ensure their equipment is kept in a safe and reliable working order and operating with optimum efficiency.

The winning contractor will be required to provide the service in accordance with the requirements set out in this Technical Specification.

The Client and partner organisations require confidence the ventilation systems are fit for purpose and meet the requirements of statutory regulation standards and published guidance in healthcare in accordance with HTM 03-01, HSG 258 and COSHH - in particular Regulation 9, regarding LEV.

The objective of this Technical Specification is to outline a standard format for a verification report that meets the requirements HTM 03-01/HTM 2025 and can be used as a record to demonstrate the ventilation system is in a compliant condition and is maintained and performs correctly.

The Client reserves the right to add or remove equipment if required during the contract term.

Working hours

Normal working hours are 08.00 and 16.00 Monday to Friday.

Lots

This contract will be let as one lot and awarded to one contractor. This is to reduce the risk of conflict between multiple contractors and administration costs.

Contract period

The contract will be for three years, commencing on 14/06/2024.

Location and sites

Name and address of sites where the contract will be carried out:

| Site address | Site contact |
|---|--|
| Furness General Hospital, Barrow in Furness, Cumbria, LA14 5HE | Mr Phil Simpson – Engineering Manager – 01229 491307 |
| Westmorland General Hospital, Burton Road, Kendal, LA9 7RG | Mr Ian Cummings – Estates Manager – 07919542006 Mr Lee Chelton – Engineering Manager -07900408441 Mr Stephen Dollard – Estates Officer - 07790818570 |
| Royal Lancaster Infirmary, Ashton Road, Lancaster, LA1 4RP | Mr Nigel German – Estates Manager – 01524 516308 Mr Keith McIntyre – Engineering Manager – 07811520878 Mr Julian Kemp – Estates Officer - 07929735278 |

Traffic Light Report System:

All reports must include a traffic light system code on the front sheet, as follows:



Thorough Examination and Test Report For:
Royal Lancaster Infirmary Local Exhaust Ventilation Systems (LEV)

UNIQUE REPORT REFERENCE NUMBER –

Client Contact / Authorised Person for Ventilation: Keith McIntyre

Site under inspection: Royal Lancaster Infirmary

Description of Works: Thorough Examination of LEV Systems

Area under inspection: Maxillofacial Laboratory

Unique LEV Reference: No Reference – (Max Fax Lab)






System Classification: Dust Extraction

Engineer(s) in attendance:

Engineer Signature:

Date of Works: 08/06/2022

Date of Next Test: 08/10/2023

Traffic Light indication stating the Overall Result of the report (Green = Pass, Amber = Requires Minor Remedials, Red = Requires Urgent Attention).

Statutory Requirements

Workplace (Health, Safety and Welfare) Regulations ACOP HS (L) 24:1992, & 2013 edition. The subject of ventilation for all non-domestic installations is covered by the workplace (health safety and welfare) regulations 1992; regulation 5 and 6 of the workplace regulations ACOP 2013 deals with the maintenance of the workplace including ventilation and in regulation 6 the provision and suitability of ventilation in the workplace, there are other relevant sections to the suitability of the environment.

These requirements have not substantially changed from the 1992 requirements. This makes it very clear that suitable ventilation must be provided at all times (as detailed in the HTMs and HBNs for the healthcare estate and supporting standards and guidance) and for the systems delivering this to be maintained such that they deliver appropriate ventilation (this demonstrated, by carrying out maintenance, tests and checks and recording them).

Control of substances hazardous to health ACOP HS (L) 5: 2005. This requires, for example, ventilation systems that are used to control levels of microbes and chemicals, to remove these to safe levels and for the systems to be regularly tested to prove the levels are compliant. This is in part achieved by the verification process and rigorous report, clearly confirming the tests and checks have been completed in the verification report. To comply, additional tests supported by clear records may be needed; these are defined in the ACOP and other statutory regulations, standards, guidance etc. (not just HTM 03).

Guidance

HTM-00 policies and principles of healthcare engineering: 2014 clearly requires:

6.1 All personnel employed in the design, operation and maintenance of engineering services, including maintenance personnel and operators, should receive adequate, documented training. Personnel should not commence their duties until this training has been completed, competency has been validated and detailed operating instructions have been provided.

5.36 Where the correct functioning of important components is not necessarily verified by the periodic tests prescribed for the engineering service, those components should be regularly tested, and reference to testing them should be included in the schedules of maintenance tasks. This applies, for example, to door interlocks that may only be required to perform their safety function when presented with an abnormal condition.

5.37 Apart from those tasks, the maintenance programme should concentrate on verifying the condition of the critical engineering service and its components by means of testing and examination without dismantling. Parts that are working correctly should not be disturbed unnecessarily.

HTM 03-01 Specialised ventilation for healthcare premises Part A design and installation and Part B Operational Management and performance verification: November 2007 also requires the verifications to be carried out.

1.29 Ventilation systems serving critical care areas should be inspected quarterly and their performance measured and verified annually and also requires, adequate, documented training

3.2 Demonstrating the people working on the system have the appropriate knowledge.

Verification report format (systems defined as ‘Critical’)

The headings will be as follows:

Front cover

- Full address of site and name of each system being verified
- Date of verification
- Date of report
- Name of verifier
- Signature
- Plant reference number
- Area served
- Traffic Light indication stating the Overall Result of the report (Green = Pass, Amber = Requires Minor Remedials, Red = Requires Urgent Attention)

Table of Contents

- A list of the headings or sections of the report
- Executive Summary
- An overview of the important findings only, main recommendations, with budget costing and conclusion

Scope

Should state the scope of the works undertaken, and the verification report meets the recommendations listed in accordance of HTM 03-01:2007 Part B. The report should detail if the ventilation system complies with the standards in place at the time of installation and the current HTM-03.

Any exclusions from HTM-03-01:2007 Part B must be clearly listed to make it clear to the reader the verification does not meet the recommendations in accordance of HTM-03-01 Part B.

Background

(As required) Reasons for the verification and any background to the report the reader might find informative.

System details

Please provide a detailed description of the system and where it serves; including basic details of the system and how it operates, sufficient to demonstrate to the reader, the verifier clearly understands the ventilation system as a whole

Available information

This is a list of information which can be provided by UHMB to the verifier (where available):

- floor plans
- duct drawings
- previous Verification Reports
- previous Validation Report
- Additionally, any information requested by the verifier

If any information is not available, this should be recorded clearly within the report.

Air Handling Unit (AHU) PLANT Schematic

A schematic of the AHU (including extract) this to include:

- all plant e.g., heaters, coolers, humidifiers, attenuators, dampers, motorised dampers
- traps
- drains
- filters

AHU Condition & Operation Survey

HTM-03-01 PART B Appendix 1 and 2

***Must include up to date photos of any non-compliance ***

Plan of the ventilation system

A schematic plan of the ventilation system (Provided by Client)

Including:

- Fire Dampers or Fire/Smoke Dampers
- Balance dampers
- Plan of area served by the Critical Ventilation System (provided by Client)
- A plan showing the room names as they appear on the doors

Airflow Measurements

- A record of the air flow measurements (supply and extract), how they were undertaken and to which standard e.g., BSRIA
- Room differential pressures
- A record of the room differential pressures, how they were undertaken and to which standard e.g., BSRIA
- Air change rates
- A record of the air change rates for each room where the HTM or HBNs state them for the whole system (supply and extract), how they were undertaken
- Supply air volumes These are to be recorded for each room served by the system. Also see "Airflow measurements"

Extract air volumes

- These to be recorded for each room served by the system. Also see "Airflow measurements".
- Air velocities (UCV operating theatres)
- These should be recorded for both UCV theatres in accordance with HTM 03-01 Part A.
- Traverse readings
- A record of duct volume flow rates and main branch ducts and the main duct record the method of measurement and standard applicable e.g., BSRIA.

Note: Where accessible in plantrooms / roof space area. If no suitable traverse points, please install and label, to enable readings to be taken.

Noise Levels

Record these for all rooms.

Particle Count

As required within classified area(s).

Appendices

Equipment Calibration Certificates

Scanned certificates of calibration, to demonstrate the calibrations are in date and the instruments used have been calibrated at the values recorded in the verification report and meet the accuracy required by the HTM.

Knowledge base including training certificates

Demonstrating the people that worked on the system had the appropriate knowledge as required by HTM 00 clause 6.1 and HTM 03-01 Part B clause 3.2. Other information may be added, to make the report more informative to the reader and meet the objective of a safely operating ventilation system.

Verification Requirements (Critical Systems)

The following details many of the measurements, tests and inspections required, these should be incorporated into all Verification works carried out and reports.

- The system is still required
- The AHU Inspect to ascertain compliance with minimum standards set out in Chapter 3 of Health Technical Memorandum 03-01 (Part B)
- The fire containment has not been breached (where visible in the plantroom)
- The general condition of the ventilation system is adequate. Is the system overall operating in a satisfactory manner?
- The fabric of the area served is satisfactory?

Note: HTM 03-01 Part B Appendix 1 for Operating theatres of any type.

- The system performance is adequate with respect to the functional requirement
- Does the measured system performance still accord with the design intent and achieve a minimum acceptable standard?
- Design air velocities
- Design air-flow rates
- Room air-change rates
- Pressure differentials
- Noise levels
- Air quality (as required)

Verification report format (systems defined as ‘Non-Critical’)

The headings will be as follows:

Front cover

- full address of site and name of each system being verified
- date of verification
- date of report
- name of verifier
- signature
- plant reference number
- area served

Table of Contents

- A list of the headings or sections of the report
- Executive Summary
- An overview of the important findings, main recommendations, and conclusion.
- Summary of defects & Action plans

Scope

Should state the scope of the works undertaken.

Background

(As required) Reasons for the verification and any background to the report the reader might find informative.

System details

Please provide a detailed description of the system and where it serves; including basic details of the system and how it operates, sufficient to demonstrate to the reader, the verifier clearly understands the ventilation system as a whole.

Available information

This is a list of information which can be provided by UHMB to the verifier (where available):

- floor plan
- duct drawings
- previous Verification Reports
- previous Validation Report
- Additionally, any information requested by the verifier

If any information is not available, this should be recorded clearly within the report.

AHU Schematic (Optional)

A schematic of the AHU Plant (including extract) this to include:

- all plant e.g., heaters, coolers, humidifiers, attenuators, dampers, motorised dampers,
- trap
- drain
- filters

AHU Condition Survey

HTM 03-01 PART B Appendix 2.

A schematic plan of the ventilation system (Provided by Client) – (Optional) Based on accessible visible ductwork only.

Including:

- location of Traverse Points
- Fire Dampers or Fire/Smoke Dampers
- Balance dampers

Airflow Measurements

- A record of the total air flow measurements (supply and extract), how they were undertaken and to which standard e.g., BSRIA.
- Supply air volumes
- These are to be recorded for each AHU system
- Extract air volumes
- These are to be recorded for each AHU system.
- Traverse readings
- A record of duct volume flow rates and main branch ducts and the main duct record the method of measurement and standard applicable e.g., BSRIA.

Note: Where accessible in plantrooms / roof space area. If no suitable traverse points, please install and label, to enable readings to be taken.

Appendices

Equipment Calibration Certificates

Scanned certificates of calibration, to demonstrate the calibrations are in date and the instruments used have been calibrated at the values recorded in the verification report and meet the accuracy required by the HTM.

Knowledge base including training certificates.

Demonstrating the people that worked on the system had the appropriate knowledge as required by HTM 00 clause 6.1 and HTM 03-01 Part B clause 3.2. Other information may be added, to make the report more informative to the reader and meet the objective of a safely operating ventilation system.

Verification Requirements (Non-critical Systems)

The following details many of the measurements, tests and inspections required, these should be incorporated into all Verification works carried out and reports.

- The system is still required
- The AHU Inspect to ascertain compliance with minimum standards set out in Chapter 3 of Health Technical Memorandum 03-01 (Part B)
- The fire containment has not been breached (where visible in the plantroom)
- The general condition of the ventilation system is adequate
- The output of the ventilation system is achieving the desired output and has not deteriorated since installation.

Certificates

Certificates of Competence and DBS Reference for each engineer reasonably expected to work on our sites as part of the contract to be provided ahead of contract start.

Contractors Responsibility

While on site the Contractor and its staff must comply with the requirements of the Health and Safety at Work Act 1974 and other relevant legislation, including regulations and codes of practice issued and with the Clients own policies and procedures.

All new Contractors attending site for the first time must go through a Maintenance Site Induction.

All Contractors must report to the Estates Office and sign in before commencing work during normal working hours. For out of hours call outs, the Contractor should report to the location of the unit where they will be met by an Estates Officer.

It is imperative all Contractors sign out before leaving site.

Visits to the locations are not permitted without the consent of the authorised officer.

All Contractors' employees who attend site shall be DBS checked by the Contractor.

Arrangements for parking will be made by Estates.

The Contractor shall provide its staff with a form of identification acceptable to the Client. This must always be displayed whilst on site.

Following the Client's site induction, the Contractor's staff will be provided with identification which must be worn while on site.

Contractor's Tools and Equipment

The Contractor shall provide all necessary transport and equipment, including but not limited to; tools, instruments, test kits, PPE, access equipment, temporary barriers and signage, and first aid equipment necessary to carry out the work safely and as detailed in the Control of Contractors documents.

Review Meeting

The Client requires an implementation meeting with the winning Contractor to be carried out at the start of the contract. This will include a site visit and induction.

The Client reserves the right to request ad-hoc review meetings. The schedule should be agreed at the initial implementation meeting and the contractor is responsible for contacting the Client to make the arrangements.

These will typically cover:

- Planned visit completion review
- Response and resolution times for un-planned work.
- Review and agreement of the value of any additional works

Invoicing

The Client will raise an upfront order for the full contract duration. Each site will be responsible for raising their own orders. To ensure smooth payment of presented invoices, please provide details of the work carried out, including current purchase order number, together with the name, area, plant location and type of verification report. Invoices to be issued annually after each report has been shared with the Client.

Assets

Please review the accompanying pricing schedule which details all areas requiring verification as part of this contract.

Terms and Conditions

Bidders should be aware any contracts arising from this procurement process shall be subject to the NHS Conditions for the Provision of Services with Maintenance Schedule. A copy can be obtained from:

[NHS Terms and Conditions with Maintenance Schedule Aug 2022.pdf](#)