Contract Specification

Title:	Biological Safety Cabinet (BSCs), Fume Cupboard (FC), Laminar Flow Cabinets (LFCs) & PCR Workstation Maintenance Contract
Date:	11/04/2024
Author:	Nik Hayward
Owner:	Dave Gillies
Client:	The Pirbright Institute
Version No:	2

1 Scope of Works History

1.1 Document Location

N:\E&M Dept\private\-2-OPS\SEOs\AIR\8-Systems\BSCs\General

1.2 Revision History

Version	Date	Details	Author
2	11/04/2024	Second Issue.	NH

Changes from the previous version are highlighted yellow.

1.3 Approvals

This document requires the following approvals.

Name	Title	Version	Date
Dave Gillies	Planned Maintenance Manager	2	11/04/2024
John Nixon	Procurement Buyer	2	11/04/2024
Gary Oldham	Senior Asset & Operations Manager	2	11/04/2024

1.4 Issue History

In addition to the approvers, this document has been issued to:

Name	Purpose	Version	Date
Interested tenderers	For Tender	2	11/04/2024

2 Table of Contents

3 Introduction

3.1 Document Purpose

The primary purpose of this document is to provide shortlisted suppliers with the information required to tender for the works.

3.2 Summary Description of works

The contract is for a single supplier to provide annual maintenance to TPI's Biological Safety Cabinets (BSCs), Fume Cupboards (FCs), Laminar Flow Cabinets (LAF) & PCR Workstations (PCR).

3.3 Specification Type

The specification for this contract will be of a performance specification type.

3.4 Contract Duration

1 Year plus the option of a 1 year extension i.e. 1 + 1 years

3.5 Contact Details

The primary contact for queries relating to this tender process is John Nixon

3.6 Location of Works

These works will take place at the following addresses:

The Pirbright Institute
Ash road,
Pirbright,
Woking,
GU24 0NF

4 General requirements

This section describes the general requirements related to delivering these works at The Pirbright Site.

4.1 Health & Safety Requirements

All works related to this specification should be performed in line with site Health & Safety (H&S) rules and the health and safety at work act 1974.

The following documents are attached in Appendix E (of the ITT pack) detail / summarise the site rules that need to be taken in to account when tendering and when works are performed on site:

- RISK-COP-7: Management of Contractors
- RISK-COP-3: Contractor Site handbook
- RISK-FORM-4: Pirbright Site Rules Overview
- EMS-WI-085: Permit to work.
- EMS-FORM-100: Point of Work Risk Assessment (POWRA)
- EMS-FORM-098: Permit to Work Part A, Part B & Part C
- EMS-WI-87: EMS Lockout/Tagout Work Instruction
- EMS-SOP-104: Engineering & Operations SOP

If required, further training on the procedures detailed in the above documents can be given on site.

The above documents detail TPIs management of H&S for construction works, the following sections highlight aspects of particular consideration.

4.1.1 Risk Assessments & Method Statements

Any works on the site must be preceded by a risk assessment and method statement (RAMS). These must be submitted to the TPI responsible person at least 5 days in advance of the works (For urgent works this period will be as soon as reasonably practicable).

RAMS must not be generic but specific to the task and date of the works and should include a detailed step by step method.

RAMS are never “approved” but will be “reviewed” by TPI personnel, and feedback will be given. A permit to work will not be issued if the RAMS are felt to be inappropriate.

Where appropriate, RAMS should be accompanied by drawings to help explain their context.

Details of the competent person performing works and their relevant training records should be included and/or referenced in the RAMS.

4.1.2 Tools and Equipment

Contractors should always provide their own tools and any specific equipment they require to complete their works.

The following items of test equipment will be supplied by TPI for use in our high containment laboratory areas.

- Anemometer
- Photometer
- Aerosol Smoke Generator
- KI Discus Machine
- Micro manometer

The following items of test equipment will need to be supplied by the Contractor for use in our non-high containment laboratory areas (Jenner Building, A-Block, B-Block).

- Anemometer
- Photometer
- Aerosol Smoke Generator
- KI Discus Machine
- Micro manometer

Equipment used by contractors should be in good working order and comply with all relevant legislation.

Electrical equipment should be PAT tested.

Equipment brought into TPI's restricted areas will need to be suitable for fumigation or disposal.

Where appropriate calibration, inspection and testing certificates of equipment being used should be issued to the responsible person before works commence (included with RAMS).

4.1.3 PPE

Contractors should provide their own personal protective equipment (PPE). PPE used should be suitable for the works and specific type/specification of PPE should be detailed in the RAMS. For our restricted areas TPI will supply safety footwear, safety glasses & gloves for each engineer who attends as part of the service contract.

4.1.4 Access Equipment

Contractors should provide all temporary access equipment required such as step ladders. The equipment should be in good working order and should be of a class 1 (industrial) certification standard.

For our restricted areas TPI will provide step ladders.

4.1.5 Equipment Certification

Where appropriate, evidence of inspection / testing / commissioning of equipment supplied or used for installation works should be provided.

4.1.6 Permits

All works performed by contractors require a permit to work.

See EMS-SOP-104: Engineering & Operations SOP (Appendix E8) for details of our Safe Systems of Work and EMS-WI-085: Permit to work (Appendix E4) for further details.

4.1.7 Isolations

As detailed in the EMS Lock out/Tag out Work Instruction, Isolations of TPI site energy sources must be performed under permit by TPI maintenance technicians and should be witnessed by the contractor performing the work who then add their own locks to the isolation.

4.1.8 Asbestos

The site asbestos register is available on request.

If any suspected asbestos is identified during the works, then works in the area should be stopped and it should be highlighted to the site contact, who will arrange sampling to take place.

4.1.9 Emergency Procedures

If an emergency event is discovered, such as a fire or medical emergency, the site gatehouse should be contacted for assistance on the emergency extension number 1000 or on radio channel 1.

On discovering a fire, the area should be evacuated, and all personnel should go to the fire assembly point. If safe to do so, fire alarm call points should be activated on the way out of the area.

In the event of a fire alarm, works should cease and contractors should make their way to the fire assembly point (to be given by the responsible person or TPI host).

4.1.10 Accident Reporting

Accidents should be reported to the TPI responsible person.

4.2 Security and Site Access Requirements

RISK-SOP-7: Management of Contractors is our process for managing contractors as required by RISK-POL-4 'Risk Policy'.

The following sections highlight aspects to be considered.

4.2.1 Photos

Photos on site can only be taken with prior agreement from the TPI responsible person. Any photos taken should not include any faces or vehicle number plates.

4.2.2 Site Access

To gain access to site, all contractors must have visitor forms raised for them by their site host before arrival on site, therefore a full names and dates of all personnel attending site must be provided at least 24h in advance.

Contractors must report to the gatehouse and present photo ID each time they access site. Photo card driving license and passport are the only forms of ID that will be accepted.

4.2.3 Site Inductions

An additional 30 min video induction and associated test should be completed by contractors working within any restricted areas.

4.2.4 Approved Contractors and Escort Requirements

Contractors must be fully escorted by Pirbright personnel unless there are approved contractors within the team.

Therefore, it is recommended that an appropriate number of contractors in each team should complete an institute security check (performed by Agenda). The cost of this is covered by the institute.

This process can take up to 2 weeks to complete. In order to do initiate this process, provide full names and an email address specific to the person to the site contact.

As a rule of thumb, 1 approved contractor can escort up to 3 unapproved contractors if working in the same area.

Even approved contractors must be escorted within restricted areas.

4.2.5 Vehicle Movements

Vehicle movements on site roads is subject to a speed limit of 10 mph which must be observed at all times extra caution should be taken by drivers on site roads due to shared use of roads by pedestrians, bicycles and vehicles.

Vehicle access to the site is through the main entrance at the north boundary of the site.

4.2.6 Welfare Facilities

There are toilets and a site canteen that can be utilised by contractors whilst on site.

4.2.7 Working Hours

Contractors will be able to access site from 0700h – 1900h Mon - Fri. works outside of these hours need to be arranged with the TPI responsible person.

Consideration should be given to the use of temporary lighting requirements if working in poor light.

4.3 Bio Safety Quarantine and Decontamination Requirements

4.3.1 Quarantine Requirements

Personnel and equipment working within restricted areas will be subject to a 3-day quarantine period. During this period, they or their equipment must not visit zoos, farms, safari parks or other locations likely to house susceptible species of animal.

Further details will be given in the restricted area induction.

4.3.2 Fumigation Requirements

Equipment used for the works within the restricted areas will need to be fumigated out, this is usually performed overnight so allowances must be made for collection of this equipment the next day or on the next visit. This also means that equipment taken into the restricted area should not include absorbent materials as these cannot be fumigated out, this often requires straps / packaging materials to be removed from equipment.

This also means that paper cannot be removed from restricted area (arrangements to scan and e-mail paperwork can be made in advance).

4.3.3 BSC, FC, LAF & PCR Decontamination

TPI will decontaminate all BSCs, Fume Cupboards, Laminar Flow Cabinets & PCR Workstations prior to the contractor attending site. A certificate of decontamination will be affixed by TPI to all equipment being maintained by the contractor.

4.4 Completion of works

4.4.1 Service Reports & Test Certificates

Works are not deemed complete until fully tested, service reports & test certificates are issued to the TPI responsible person and TPI paperwork completed. Where possible electronic service reports & test certificates should be used.

If for any reason the works cannot be completed, the TPI responsible person should be informed before service engineers leave site.

4.4.2 Waste Management

Works are not considered completed if waste/detritus is left following any works.

Removal of waste should be discussed with the TPI responsible person, in general it is the expectation that waste is removed and disposed of responsibly by the contractor. Site waste streams can only be used with prior agreement with TPI responsible person.

4.4.3 Contractor Capability

Relevant training records of contractors performing the works should be issued to the TPI responsible person.

The works should not be subcontracted by the service agreement contractor.

4.4.4 Service Agreement Performance Review Meetings.

To be carried out every 6 months, unless otherwise agreed by TPI and Contractor.

5 Particular Requirements

This section describes the particular requirements of the service contract.

This is not restrictive and potential suppliers should provide details of additional or alternative services or technical solutions that may be appropriate.

5.1 Email Response

A requirement of the service contract will be for the Pirbright Institute to receive an email reply to any enquiry with-in 24 hours.

5.2 Call Out Response

A requirement of the service contract will be for site attendance to any call out with-in 72 Hours / 3 working days of receipt of email enquiry.

5.3 Work Package 1 – BSC Maintenance

This works package is for a single supplier to test and maintain the site Biological Safety Cabinets (BSCs) to the Manufacturer's requirements and statutory requirements, at The Pirbright Institute.

5.3.1 Validation Qualification (Monitoring, Performance Testing & Certification)

General Cabinet/Workstation Function Inspection Checks

General checks will be made on the cabinet of any pre-filters and on cabinet/workstation construction and surfaces. The functions of the cabinet/workstation will be checked for correct operation including lights, switches, alarms, sash, etc. (where applicable).

Safety Cabinet Air Velocity & Flow Rate Checks

Air velocity readings will be taken for each safety cabinet in accordance with BS EN 12469 (2000). Measurements will be taken using a suitable anemometer and/or micromanometer, with pitot tube (where applicable).

Airflow visualisation checks will be carried out across the inlet aperture (where applicable) to demonstrate an inflow of air across the entire opening.

Results will be compared against client design requirements and BS EN 12469 (2000) (where applicable).

Safety Cabinet Particle Challenge (Filter Integrity) Leak Tests

Particle challenge (filter integrity) leak checks will be carried out on all safety cabinet HEPA filters in accordance with BS EN 12469 (2000). An aerosol challenge of Shell Ondina EL oil will be used via an aerosol generator with the filter scanned for leaks using an aerosol photometer (where possible).

Results will be compared against client design requirements and BS EN 12469 (2000) (where applicable).

Safety Cabinet Operator Protection Tests

Operator protection tests will be carried on the safety cabinets in accordance with BS EN 12469 (2000). Measurements will be taken using a KI Discus 4 headed sampling unit.

Results will be compared against client design requirements and BS EN 12469 (2000) (where applicable).

5.4 Work Package 2 – Fume Cupboard Maintenance

This works package is for a single supplier to test and maintain the site Fume Cupboards to the Manufacturer's requirements and BS EN 14175 Part 4, at The Pirbright Institute.

5.4.1 Validation Qualification (Monitoring, Performance Testing & Certification)

General Cupboard/Workstation Function Inspection Checks

General checks will be made on the cupboard of any pre-filters and on cupboard construction and surfaces. The functions of the cupboard will be checked for correct operation including lights, switches, alarms, sash, etc. (where applicable).

Fume Cupboard Air Velocity & Flow Rate Checks

Air velocity readings will be taken for each safety cupboard in accordance with BS EN 14175. Measurements will be taken using a suitable anemometer and/or micromanometer, with pitot tube (where applicable).

Airflow visualisation checks will be carried out across the inlet aperture to demonstrate an inflow of air across the entire opening.

Results will be compared against client design requirements and BS EN 14175.

5.5 Work Package 3 – Laminar Flow Cabinet Maintenance

This works package is for a single supplier to test and maintain the site Laminar Flow Cabinets to the Manufacturer's requirements and BS EN ISO 14644-1:2015, at The Pirbright Institute.

5.5.1 Validation Qualification (Monitoring, Performance Testing & Certification)

General Cupboard/Workstation Function Inspection Checks

General checks will be made on the cupboard of any pre-filters and on cupboard construction and surfaces. The functions of the cupboard will be checked for correct operation including lights, switches, alarms, sash, etc. (where applicable).

Laminar Flow Cabinet Particle Challenge (Filter Integrity) Leak Tests

Particle challenge (filter integrity) leak checks will be carried out on all Laminar Flow cabinet HEPA filters in accordance with BS EN ISO 14644-3:2015. An aerosol challenge of Shell Ondina EL oil will be used via an aerosol generator with the filter scanned for leaks using an aerosol photometer (where possible).

Results will be compared against client design requirements and BS EN ISO 14644-1:2015 (where applicable).

5.6 Work Package 4 – PCR Workstation Maintenance

This works package is for a single supplier to test and maintain the site PCR Workstations to the Manufacturer's requirements and BS EN ISO 14644-1:2015, at The Pirbright Institute.

5.6.1 Validation Qualification (Monitoring, Performance Testing & Certification)

General PCR Workstation Function Inspection Checks

General checks will be made on the PCR cabinet of any pre-filters and on cabinet construction and surfaces. The functions of the cabinet will be checked for correct operation including lights, switches, alarms, sash, etc. (where applicable).

PCR Workstation Cabinet Particle Challenge (Filter Integrity) Leak Tests

Particle challenge (filter integrity) leak checks will be carried out on all PCR Workstation cabinet HEPA filters in accordance with BS EN ISO 14644-3:2015. An aerosol challenge of Shell Ondina EL oil will be

used via an aerosol generator with the filter scanned for leaks using an aerosol photometer (where possible).

Results will be compared against client design requirements and BS EN 12469 (2000) (where applicable).

Services will be due at 6 monthly and 12 monthly intervals.

The contractor will be expected to advise on the condition of the equipment and provide details of any remedial works required following each service. Critical remedial works should be advised to TPI on the same day.

Quotations for non-critical remedial works should be provided to TPI within 1 week of a service visit.

Service reports should be left on site or received by site on the day of the service.

Within the first 6 months of the contract the contractor will be expected to provide a critical spares list and an itemised quotation.

Maintenance Schedule

The maintenance schedule below is a general guide, exact dates & equipment to be confirmed.

Month	Building	Equipment	Number of Days Required (Max Days Available)
Jan	Plowright (Ground Floor East Wing)	15 BSCs	4
	Biggs	1 BSC	1
Feb	Jenner	55 BSCs, 3 PCR Workstations & 6 Fume Cupboards	8
Mar	Plowright (North Wing)	49 BSCs, 6 PCR Workstations & 2 Fume Cupboards	15
April	Plowright (West Wing)	13 BSCs & 1 PCR Workstation	9
June	Plowright (East Wing)	7 BSCs, 3 Fume Cupboards & 2 PCR Workstations	10
July	Plowright (Ground Floor East)	15 BSCs	9
	A Block	5 BSCs	1
	B Block	6 BSCs & 1 Fume Cupboard	1
Sept	Plowright North Wing	26 BSCs	7
Oct	Plowright (West Wing)	13 BSCs	4
Dec	Plowright (East Wing)	19 BSCs	7

An all-inclusive annual cost (Net) should be provided for each year of the contract as per the price schedule included in Appendix C of the ITT pack.

5.7 Additional Information – Hourly Rates

The supplier should also provide hourly/day rate costs for delivering additional works over and above the maintenance contract works for each year of the contract. Rates for normal / out of hours and Mon – Fri / Sat – Sun should be provided as per the price schedule included in Appendix C of the ITT pack.

5.8 Additional Information - Client Responsibilities

In order for the supplier to successfully carry out their works, the client is responsible for:

- Arranging site and area access
- Arranging inductions required to access various parts of site.
- Arranging permits required to carry out work.
- Arranging isolations required to ensure contractor works can be performed safely.
- Ensuring the contractor is aware of the site rules and safe system of work system.

6 Commercial Requirements

6.1 Price schedule

A price schedule is included in Appendix C of the ITT Package.

The supplier shall invoice after each service visit with a signed copy of the service report sheet.

Any works identified as additional to the service contract will require separate purchase orders, and the invoices accompanied with signed worksheets.

All invoices for maintenance or reactive works should quote the relevant TPI Purchase Order number.

6.2 Payment terms

TPI will pay each invoice which is properly due and submitted by the Supplier within thirty (30) days after acceptance of the Goods/Services.

6.3 Service Performance Levels

Following each service visit, the supplier's performance will receive one of the following scores by TPI responsible person:

1 – Poor (with details given)

2 – Satisfactory

3 – Good

This score will be assessed on the following things:

Technical (General)
Service Visits completed on the date(s) they were booked to be done Quote for remedial works received by TPI within 5 working days of the service visit or call out attendance date Upon issue of a purchase order for remedial works, works started within 5 working days or within 5 working days of materials lead in time, if required.

Works areas kept clean and tidy during and after services or remedial works and all waste removed from site on completion of work For planned works: RAMS provided no less than 5 calendar days prior to commencement of the works Compliance with all site rules and processes
Commercial:
Invoices submitted with supporting paperwork within 1 week of completion of service visits or additional works. Invoices for maintenance or reactive works to quote relevant TPI Purchase Order Number Purchase order for call outs/reactive works obtained prior to commencing works (excluding 'Out of hours' call outs)

These performance scores will be tracked and reviewed at Service Agreement Performance Review meetings.

Regular poor performance would be considered grounds for cancelling and retendering the contract.

Regular poor performance will be deemed as repetition of poor performance in any one area with no improvement over a rolling 12-month period for the duration of the contract.

Appendix E – Documents

Reference	Title	Version
Appendix E1 - RISK-COP-7:	**Management of Contractors**	3
Appendix E2 - RISK-COP-3:	**Contractor Site handbook**	5
Appendix E3 - RISK-FORM-4:	**Pirbright Site Rules Overview**	4
Appendix E4 - EMS-WI-085:	**Permit to work**	2
Appendix E5 - EMS-FORM-100:	**Point of Work Risk Assessment (POWRA)**	6
Appendix E6a - EMS-FORM-098	**Permit to Work Part A, Part B & Part C - Permit to Work v6**	6
Appendix E6b - EMS-FORM-098	**Permit to Work Part A, Part B & Part C - Permit - Section 4 Extension**	6
Appendix E7 - EMS-WI-87:	**EMS Lockout/Tagout Work Instruction**	3
Appendix E8 - EMS-SOP-104:	**Engineering & Operations SOP**	3