

## Person Specification

	<b>Essential</b>	<b>Desirable</b>
Qualifications/Training	1. Degree in Physics, Electronic/Computing Engineering or equivalent appropriate experience in this or similar field	6. Successful completion of range of manufacturers training courses.  Masters in relevant subject Member of RCT
Experience	2. Experienced in diagnosis/troubleshooting/servicing a wide range of electronic devices incorporating complex and wide ranging technologies. This would include the use of computer applications and variety of specialist test equipment.	7 Experience within an electronics/physics environment
Skills/Knowledge	3. Knowledge of Test & Calibration/Repair/Fault Finding procedures for electronic and computer based equipment. High degree of computer literacy	8. Knowledge & experience of working within ISO 9001:2008 or a similar quality management system
Additional job requirements Eg. car driver, unsocial hours	4. Able to communicate to a high level. Provide training to staff groups, clinical and technical.	9.
Any other additional information	5. Able to demonstrate an ability to work within a highly technical/clinical, Medical Physics related environment.	10.

# **GOLDEN JUBILEE NATIONAL HOSPITAL**

## **JOB DESCRIPTION**

### **1. JOB IDENTIFICATION**

**Job Title: Specialist Clinical Engineer**

**Department(s): Medical Physics**

**Job Holder Reference:**

**No of Job Holders: 1**

### **2. JOB PURPOSE**

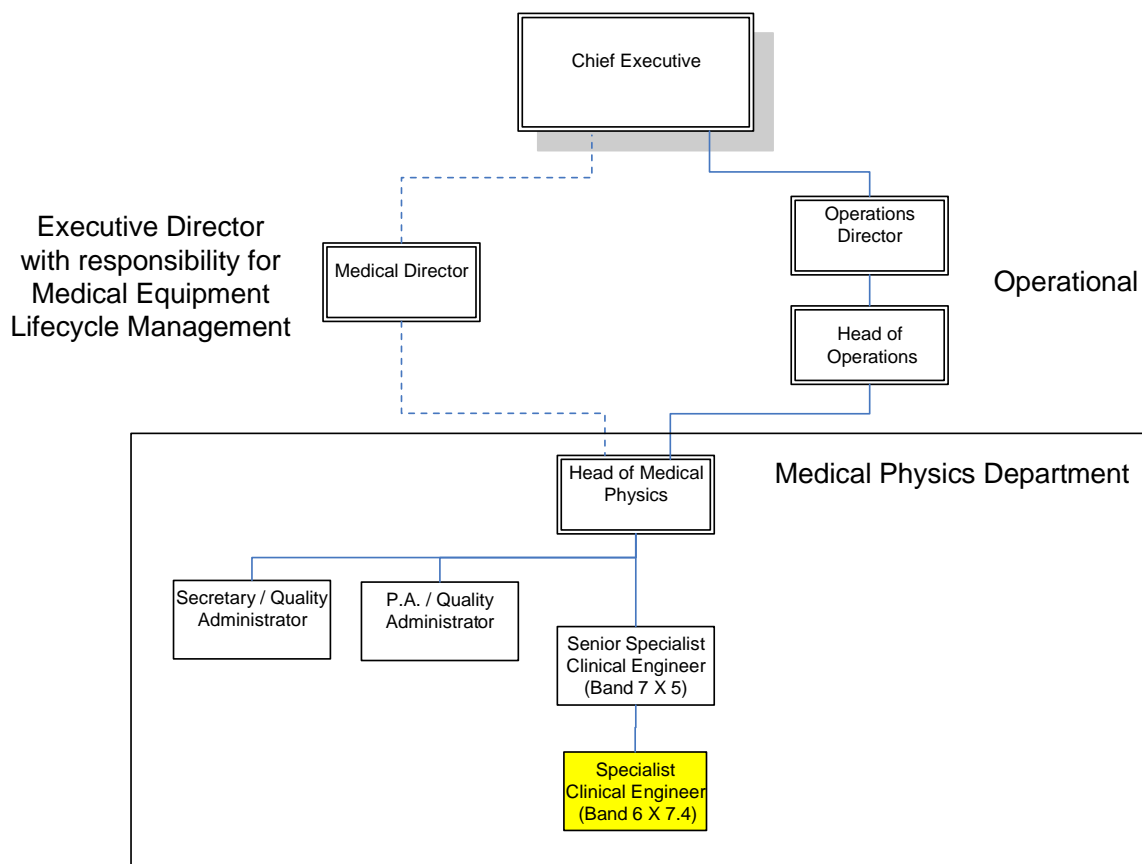
The GJNH is a tertiary care hospital specializing in cardiac, orthopaedic, ophthalmic, ENT and general surgery. In support of these specialties there are a diverse range of specialist departments such as Anaesthetics, Perfusion, CSPD, Rehabilitation, Laboratories, Cardiology, Theatre, Cardiac Surgery, Thoracic Surgery, Wards, Renal Dialysis, Endoscopy, Radiology (diagnostic imaging) and ICU.

Medical Physics provide scientific, technical and educational support to all these specialties. This requires in-depth knowledge of each of the specialties and a detailed understanding of the broad range of interconnected technologies employed to ensure they function.

The equipment used by these services are state of the art and utilize science and technologies from the specialised fields of non ionizing radiation, ionizing radiation, microprocessor systems, electronic communications, micro electronics, power electronics and control systems engineering.

The Specialist Engineer will participate in providing a physics and biomedical service to the hospital. This service includes calibration, maintenance and repair of a complex and wide range of electro medical equipment to hospital and legislative standards.

## ORGANISATIONAL POSITION



#### 4. SCOPE AND RANGE

- The medical physics inventory contains in excess of 12000 items, and has over 1670 different types of equipment with monetary value >£20m. A planned preventative maintenance program is in place which schedules over 6000 preventative maintenance jobs annually. The medical physics staff monitor the progress of preventative maintenance schedules monthly and maintenance schedules are amended accordingly. The medical physics staff liaises with clinical users and other departments regularly to ensure availability of equipment for service and to provide training and technical advice. The department works closely with external contractors and suppliers as required to meet the servicing requirements of the department.
- Biomedical Services are further sub-divided into the following specialities: -
  - (a) Cardiology
  - (b) Anaesthetics
  - (c) Dialysis
  - (d) Lasers (non-ionising radiation)
  - (e) Diagnostic Imaging (ionising radiation)
  - (f) Laboratories
  - (g) Ophthalmology
  - (h) Endoscopy
  - (i) Surgery
  - (j) Orthopaedics
  - (k) Cardiac Surgery
  - (l) Thoracic surgery
  - (m) Diagnostic Ultrasound

## 5. MAIN DUTIES/RESPONSIBILITIES

- Actively participate in the training of hospital staff in the correct working practices and safe use of the equipment under our remit.
- Participate in technical training provided by equipment suppliers and Internal department training provided by members of Medical Physics staff.
- Participate in the production of evidence-based statistics detailing the performance of all aspects of the speciality. This includes PPM performance, Corrective maintenance performance and Contract performance.
- Responsible for arrange clinical trials of new medical equipment for use within the hospital this involves long periods of time researching different products and suppliers to insure that the products that are to be evaluated meet the specification set out by the end user and that they meet all safety standards set by the MHRA
- Carry out acceptance testing on new items of equipment according to Medical Physics acceptance policy.
- Responsible for the daily maintenance and repair of all electro medical equipment covered under specialist and department remit, equipment cost in excess of 20 million pounds.
- Responsible for maintaining department stock control involving the ordering of supplies and essential spare parts / accessories for equipment; authorised signature for non-capital purchases.
- Must be able to assess faults quickly and act accordingly in highly stressful situations such as, when patients are on life support systems
- Often having to work to tight deadlines to ensure the best possible patient care
- Responsible for producing and implementing new departmental policies and procedures. Working to insure that the department constantly meets ISO 9001 (2008)
- To comply with hazard and safety notices from the various regulatory bodies including the MHRA and equipment manufacturers.
- Have direct responsibility for the maintenance and calibration of diagnostic and therapeutic medical equipment thus ensuring that patients are not put at risk from faulty equipment
- Responsible for ensuring all test equipment calibrated before use and participating on the ongoing calibration program as required by ISO 9001 (2008). All test equipment must kept within calibration (unless used for indication only) and Calibration dates recorded within the Call Log / Medical Physics Database. Copies of all calibration certification to be filed and calibration records kept accurate and up to date.
- Have responsibility for patient care when called to attend a piece of faulty equipment which is attached to the patient clinically or therapeutically often having to judge if it is feasible to continue using the piece of equipment or if it has indeed developed a serious fault.
- To supervise and carry out maintenance by the department to the following legislative standards: -

- (a) IEC 601 for Electro medical Equipment.
- (b) ESCHLE Standard for Medical Laboratories.
- (c) The Electricity at Work Act 1989.
- (d) The Compliance of MDA DB9801, MDA DB2002(01), MDA DB2000(02), MDA DB9503.
- (e) The Health & Safety at Work Act 1974.
- (f) ISO 9001, 2008
- (g) COSHH 1994

- To participate in KSF program and organise personal work plan (PWP) to achieve goals and objectives for the department and organisation.

## 6. SYSTEMS AND EQUIPMENT

- Use the Medical Physics database on a daily basis, to store and collate test data, and to log all personal work carried out on a daily basis. As well being able to manipulate/modify database queries, forms and reports. As well as utilising other various computer programs used during the faultfinding and calibration of various equipment.
- Responsible for updating equipment maintenance records. Overseeing the implementation of new software.

## 7. DECISIONS AND JUDGEMENTS

Ensure that all work is carried out to the high standards set out in Medical Physics policies, procedures and protocols

Expected to work on their own initiative and make day-to-day judgement calls on their activities as well as a team player but be able to offer advice where necessary.

Must plan daily and weekly activities to ensure that work is prioritised correctly to insure that time is used effectively.

To report to the lab manager on a daily basis and actively support all decisions and instructions given out by him as required by this position, but is managed not supervised when carrying out main duties

Will be expected to advise on departmental costs and other budgetary matters.

## 8. COMMUNICATIONS AND RELATIONSHIPS

- Communicate with all levels of hospital Staff on complex technical issues; be pro-active in acquiring information and giving in-depth advice to department staff and clinical users.
- Act as customer advocate for this speciality(s). Participate in relevant user groups and committees.
- To participate in the training of groups of hospital staff, in the safe clinical use and good working practices required to operate the complex electro-medical equipment within specialist remit. Training must be given in a manner, which overcomes the barriers of technical knowledge, which are often encountered.
- Communicate with company representatives to arrange clinical trials of new equipment, and thus leading to the negotiation of a competitive quotation prior to the purchase of equipment.
- Continually processing highly sensitive and confidential information from suppliers, in the form of quotations, contract information and product specifications

## 9. PHYSICAL DEMANDS OF THE JOB

- Most of the repairs, PM's are carried out in the laboratory however there is a high level of frequency to work on site, with some systems this can be space confining.
- Occasionally required to move heavy medical devices in excess of 300kg throughout a shift. Frequently required to lift and move moderately heavy equipment and parts without mechanical aids.
- The working environment and equipment can often be contaminated with body fluids and universal precautions are taken in these instances.
- Much of the equipment is complex and requires long periods of concentration during fault diagnosis and calibrations.
- In regular contact with potentially lethal chemicals, therefore must have a good working knowledge of COSHH legislation.
- Exposed daily to electrical shock risk from exposed live mains power. Regularly exposed to very high risk situations servicing defibrillators and electrosurgery units with very high life threatening voltages in excess of 9000 Volts.
- Highly developed skills in the manipulation of fine tools and materials where a high level of manual dexterity and accuracy are required. Be proficient in various soldering techniques (including surface mount techniques) essential when reworking delicate components on fine easily damaged circuit boards.

## 10. MOST CHALLENGING/DIFFICULT PARTS OF THE JOB

- Much of the equipment is complex and requires prolonged periods of intense concentration during in-depth fault finding exercises, fault diagnosis or calibrations.
- The work load is always unpredictable and requires frequent changing between jobs and an ability to cope with several complex jobs simultaneously

## 11. KNOWLEDGE, TRAINING AND EXPERIENCE REQUIRED TO DO THE JOB

- The post holder requires degree or equivalent in Medical physics, Physics, Electronic engineering, Computing or related discipline.
- Experience of working in these specialties.
- High level of IT literacy.
- Able to communicate with staff at all levels.
- Professionally registered as a Clinical Technologist as well as having specialist knowledge in the fields of General surgical equipment, Patient Monitoring, and Cardiology gained through manufactures training courses, in-house training, original OEM documentation and from significant personal experience in specialist fields, as well as specialising in stated areas the post holder must have a good working knowledge of all other electro-medical equipment found within the hospital.
- Experience of assembly language and high-level programming. Ability to work in DOS environment as well as detailed knowledge of current operating systems. In-depth knowledge of interfacing medical devices via networks, parallel and serial communications and associated protocols.

## 12. JOB DESCRIPTION AGREEMENT

A separate job description will need to be signed off by each jobholder to whom the job description applies.

**Job Holder's Signature:**

**Head of Department Signature:**

**Date:**

**Date:**



# Delivering care through collaboration

## NHS Golden Jubilee

Beardmore Street, Clydebank G81 4HX

Telephone: 0141 951 5000

[www.nhsgoldenjubilee.co.uk](http://www.nhsgoldenjubilee.co.uk)



Chair: Susan Douglas-Scott CBE

Chief Executive: Jann Gardner

Recruitment line: 0800 0283 666

Dear Candidate

**POST: Specialist Clinical Engineer**

**HOURS: 37.5 per week**

**CLOSING DATE: 1<sup>st</sup> June 2021**

NHS Golden Jubilee welcomes your enquiry in connection with the above post. Please find enclosed an information pack.

Should you wish to submit an application for the above post, please ensure you do so in advance of the closing date. Late applications will not be forwarded for short listing.

When providing referees on the application form, please be aware that we require a minimum of two references to cover at least **two years** of previous employment/training history. If there is insufficient space on the application form to list all of your referees, please provide on an additional page. Where possible, please provide us with e-mail addresses for contact. Additionally, you should note that as part of the pre-employment checks a PVG or Disclosure Scotland check will be completed. **It is an offence for barred individuals to apply for regulated work.**

Should you contact the recruitment team to discuss any queries regarding your application it is advisable that you retain the job reference number as you will be asked to quote this when you call.

In the meantime, I wish you success with your application and should you require any further information please do not hesitate to contact the recruitment team on the contact telephone number shown above.

Yours sincerely  
Recruitment Assistant

## **NHS Golden Jubilee**

### **General Information for Candidates**

- This information package has been compiled to provide prospective candidates with details of the post and background information about NHS Golden Jubilee (NHSGJ).
- The contents of this package are as follows:-
  - Job Description/person specification
  - Terms and Conditions of Service
  - Application Form
  - Equal Opportunities Monitoring Form
  - Information on Agenda for Change
- The Equal Opportunities Monitoring form is required for monitoring purposes only and will not be made available to the interview panel during any part of the recruitment process.
- Please note, to ensure that we adhere to our current policy on Equal Opportunities; CV's received with Application Forms will be destroyed prior to Application forms being passed for Short listing.
- NHSGJ operates a No Smoking Policy on all Premises and Grounds and in shared vehicles.
- All offers of employment will be subject to the receipt of two year's satisfactory References, Occupational Health screening and Disclosure Scotland clearance. Please note that it is an offence under the act for barred individuals to apply for regulated work.
- Please submit your completed application through the Jobtrain Recruitment System
- The short listing process will take place shortly after the closing date.
- As a Disability Confident Leader we recognise the contribution that all individuals can make to the organisation regardless of their abilities. As part of our ongoing commitment to extending employment opportunities all applicants who are disabled and who meet the minimum criteria expressed in the person specification will be guaranteed an interview.
- The organisation has introduced a set of shared values. These values will be measured during our Values Based Competency Interview.

Our values are:

- Valuing dignity and respect
- A "can do" attitude
- Leading commitment to quality
- Understanding our responsibilities
- Effectively working together

## **NHS Golden Jubilee**

### **Terms and Conditions of Service**

The terms and conditions applicable to this post are those of all NHS Scotland Employees.

#### **1. Superannuation**

You have the option to join the NHS Superannuation Scheme, to participate in the State Earnings Related Pension Scheme or to take out a Personal Pension.

Employees contributions to the NHS Scheme range from 5.2% to 14.7% of salary (depending on rate of Pensionable Pay) and the employers' contribution equates to 13.5% of salary. Employees in the NHS Scheme are "Contracted-out" of the State Earnings Related Pension Scheme and pay a lower rate of National Insurance contributions. Employees who choose to participate in the State Earnings Related Pension Scheme pay the higher rate of National Insurance contribution. A Stakeholder Pension is also available.

#### **2. Salary**

£32,118 to £39,560 per annum

#### **3. Grade**

This post is offered at Band 6.

#### **4. Annual Leave**

The annual leave entitlement in a full year commencing 1st April to 31st March is 27 days, rising to 29 days after 5 years' service and 33 days after 10 years' service. There are 8 Statutory and Public Holidays in each leave year. (Pro rata where applicable)

#### **5. Hours of Duty**

37.5 Hours per week

#### **6. Tenure of Employment**

This post is offered on a permanent basis

#### **7. Asylum and Immigration Act 1996**

Under the Asylum and Immigration Act 1996, we are required to carry out checks to ensure that all prospective employees are entitled to live and work in the United Kingdom. You will therefore be asked to provide appropriate documentation prior to any appointment being made.

## **NHS Golden Jubilee**

### **Benefits**

#### **NHS Superannuation scheme:**

New entrants to NHS Golden Jubilee who are aged sixteen but under seventy-five will be enrolled automatically into membership of the NHS Pension Scheme. Employee contributions vary from 5.2% to 14.7% depending on annual pensionable pay. Benefits include a lump sum and pension when you retire, life assurance of 2 years' pay - while you are working, pension and allowances for your spouse and children in the event of your death, and benefits for ill-health retirement.

Our pension scheme is provided by Scottish Public Pensions Agency. This scheme is a qualifying pension scheme, which means it meets or exceeds the government's new standards. All benefits including life insurance and family benefits are explained on the SPPA website <http://www.sppa.gov.uk/>

#### **Annual leave entitlement (including public holidays):**

35 days' annual leave on appointment

37 days' annual leave after 5 years

41 days' annual leave after 10 years

#### **Free car parking**

#### **Continuing professional development opportunities**

#### **Discounts at the Golden Jubilee Conference Hotel**

**Leisure Club membership** – Get fit and healthy at the Centre for Health and Wellbeing with a discounted membership rate of £30 per month.

**Discounted Room Rates** - Rooms rates discounted subject to specific conditions.

**Discounted Dining** - 20% off food and beverage when dining in the hotel.

**Golden Bistro (Hospital Restaurant)** - Discounted food in our award winning hospital restaurant.

### **NHS Staff Benefits**

As a staff member in NHS Golden Jubilee, you will have access to a wide variety of offers and discounts from local and national businesses using your NHS ID badge. For more information and to view these discounts, visit [www.nhsstaffbenefits.co.uk](http://www.nhsstaffbenefits.co.uk) - new offers are added on a weekly basis.