

JOB DESCRIPTION

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| **JOB DETAILS** | |
| **Job Title** | **Senior X-Ray Engineer** |
| **Reports to** | **Chief Xray Engineer** |
| **Band** | **Band 6 Clinical Technologist** |
| **Department/Directorate** | **Diagnostics/Specialist Services** |

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| **JOB PURPOSE** |
| The job exists to assist in the provision of an in-house planned preventative maintenance programme for designated X-ray and Medical Imaging equipment and to provide a first line service facility over a wide field of X-ray and associated equipment managed within the RDUH Trust, including the community hospitals, Mireille Gillings Neuro Imaging Centre, Devon Diagnostic Centre and commercial organisations. |
| **KEY RESULT AREAS/PRINCIPAL DUTIES AND RESPONSIBILITIES** |
| * Facilitate the day-to-day provision of the planned preventative maintenance programme (PPM) and first line/breakdown servicing for a wide range of designated Medical Imaging equipment including: CT and MRI, X-ray, Nuclear Medicine, Bone Densitometry (including associated IT equipment). * Provide expert maintenance skills for a wide range of Diagnostic Radiology and Nuclear Medicine equipment. * Assist in the operation of the QSI accreditation X-ray maintenance section, and, in particular: * Maintain proper documentation including PPM planning service reports * Demonstrate compliance with relevant Service Level Agreements by maintaining call logs * Supervise and record training of band 5 maintenance MTO. * Ensure the quality standards as set out in Service Level Agreements and contracts are met * Ensure that the users of the X-ray equipment have the maximum satisfaction with the maintenance service. * Provide First Line Maintenance Service for Photo-therapy (Dermatology Department) and Radiology Diagnostic Ultrasound Services * Provide advice on service/maintenance aspects of proposed Medical Imaging capital purchases, and supervision of the installation of new equipment, liaising with the Radiation Protection Advisor, Diagnostic Radiology Physicist, Radiology Services Manager, and the Estates Department as appropriate. * Maintain safe working practices to comply with relevant statutes and departmental procedures when working with items which may:   + be very heavy   + be electrically hazardous   + contain chemical hazards * Act as an approved Operator under Department IRMER procedures. * Maintain own registration as a Clinical Technologist, (CPD etc), and supervise similar for less senior maintenance staff. * Carry out training of junior members of staff, (both MTOs and other professions), where appropriate.   Areas of Responsibility: (type of work undertaken)  The post holder must assist and cover for Chief X-ray Engineer within the Radiology Services Group for the day-to-day operation of the X-ray maintenance service.  The X-ray maintenance and service section is responsible for equipment in the RDEUH Eastern acute and community trusts with a capital value well in excess of £20 million including CT, MRI, Fluoroscopy, Gamma Cameras, Bone Densitometry and Analogue and Digital diagnostic X-ray rooms. Other supported equipment includes Mobile C-arms Mobile X-ray Machines, Dental X-ray and CR Readers and other associated equipment.  The post-holder is expected to work flexibly along with the Chief X-ray engineer in order to provide in so far as practicable a responsive service 52/52, 07:00 to 17:00 during normal working days, deputising for the Chief Engineer as may be required.  The post holder is required to be on the Register of Clinical Technologists  To participate in the Trust’s Appraisal and Personal Development Plan procedures. |
| **KEY WORKING RELATIONSHIPS** |
| |  |  | | --- | --- | | **Internal to the Trust** | **External to the Trust** | | * Radiologists * Radiology Registrars * Radiology Services Manager | * Field Service Engineers | | * Radiographers | * System Application Specialist | | * Radiation Protection Advisor | * Regional equivalents | | * Medical Physics Expert |  | | * PACS Manager |  | | * Physicists |  | | * Clinical Technologists in Medical Electronics and Medical Physics |  | | * Community site managers |  | | * Estates |  | |

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| **ORGANISATIONAL CHART** |
| Cluster Manager  Diagnostic Services  Radiology Services  Manager  Chief Xray Engineer  Xray Maintenance  **Radiology Organisation Chart**  Divisional Director  Diagnostic Services  Divisional Business Manager  Diagnostic Services  **Senior**  **Xray Engineer** |
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| **FREEDOM TO ACT** |
| This role requires a high level of autonomy and independent working.  Facilitate the day-to-day provision of the planned preventative maintenance programme (PPM) and first line/breakdown servicing for a wide range of designated X-ray, Nuclear Medicine, Bone densitometry (including associated IT equipment)  Provide expert maintenance skills for a wide range of Diagnostic Radiology and Nuclear Medicine equipment.  Provide First Line Maintenance Service for Photo-therapy (Dermatology Department) and Diagnostic Ultrasound Services |
| **COMMUNICATION/RELATIONSHIP SKILLS** |
| Provide advice on service/maintenance aspects of proposed X-ray capital purchases, and supervision of the installation of new equipment, liaising with the Radiation Protection Advisor, Diagnostic Radiology Physicist, Radiology Services Manager, and the Estates Department as appropriate.  Ensure that the users of the X-ray equipment have the maximum satisfaction with the maintenance service. |
| **ANALYTICAL/JUDGEMENTAL SKILLS** |
| The post-holder will be expected to have high analytical skills and good judgement. They will be asked to manage difficult or complex equipment failures as and when they arise to ensure continued safe operation for staff and patients. |
| **PLANNING/ORGANISATIONAL SKILLS** |
| The post holder will be required to assess the workload and prioritise critical work to ensure the continued provision of patient services. They may be required to work between sites at short notice to respond to equipment failures. This will also involve liaising with external service providers. |
| **PATIENT/CLIENT CARE** |
| Whilst this is not a patient facing role, the post holder will be expected to behave in a professional manner and demonstrate the ability to provide a compassionate response if required. |
| **POLICY/SERVICE DEVELOPMENT** |
| The post-holder will work within departmental protocols. The post-holder will take part in departmental audit as part of service improvement and development. |
| **FINANCIAL/PHYSICAL RESOURCES** |
| The post holder will be responsible for the maintenance and care of critical medical equipment with high financial responsibility. They will be expected to provide expert advice for equipment selection as part of any capital purchase programs. |
| **HUMAN RESOURCES** |
| The post-holder will be responsible for any junior, apprentice or student Medical Physicists with whom they are working. They will use their experience and expertise to provide support, guidance and training. |
| **INORMATION RESOURCES** |
| The post-holder will use a variety of IT systems in the performance of their day-to-day work. They will be required to use these systems to accurately record information. |
| **RESEARCH AND DEVELOPMENT** |
| The post-holder will take part in departmental audit including regular equipment Quality Assurance. The post holder will be involved in working at the research facility shared with the University of Exeter. |
| **PHYSICAL SKILLS AND EFFORT** |
| The post-holder will need to be able to move and position imaging equipment and safely handle MR coils. They will be expected to manually handle replacement parts when necessary.  They will be required to maintain safe working practices to comply with relevant statutes and departmental procedures when working with items which may:   * + be very heavy   + be electrically hazardous   + contain chemical hazards |
| **MENTAL EFFORT** |
| The post-holder will be required to concentrate for long periods of time, demonstrating good analytical skills: fault finding and diagnosing where equipment faults have been identified. The workloads can be unpredictable and so the post-holder will need to use their experience and skills to adapt and overcome challenges when they arise. |
| **EMOTIONAL EFFORT** |
| The role can require emotional effort. The department provides a service to a variety of patients encompassing a wide spectrum of ill-health and injury or trauma which can be distressing. The post holder may be exposed to witnessing traumatic events whilst the patients are under the care of the clinical team. |
| **WORKING CONDITIONS** |
| Contribute to and work within a safe working environment You are expected to comply with Trust Infection Control Policies and conduct him/herself at all times in such a manner as to minimise the risk of healthcare associated infection.  Post-holder will be expected to comply with IRR and IRMER regulations due the nature of working in a controlled area. |
| **OTHER RESPONSIBILITIES** |
| Take part in regular performance appraisal.  Undertake any training required in order to maintain competency including mandatory training, e.g. Manual Handling.  Contribute to and work within a safe working environment.  As an employee of the Trust, it is a contractual duty that you abide by any relevant code of professional conduct and/or practice applicable to you. A breach of this requirement may result in action being taken against you (in accordance with the Trust’s disciplinary policy) up to and including dismissal. You must also take responsibility for your workplace health and wellbeing:   * When required, gain support from Occupational Health, Human Resources or other sources. * Familiarise yourself with the health and wellbeing support available from policies and/or Occupational Health. * Follow the Trust’s health and wellbeing vision of healthy body, healthy mind, healthy you. * Undertake a Display Screen Equipment assessment (DES) if appropriate to role. |
| **GENERAL** |
| This is a description of the job as it is now. We periodically examine employees' job descriptions and update them to ensure that they reflect the job as it is then being performed, or to incorporate any changes being proposed. This procedure is conducted by the manager in consultation with the jobholder. You will, therefore, be expected to participate fully in such discussions. We aim to reach agreement on reasonable changes, but if agreement is not possible, we reserve the right to insist on changes to your job description after consultation with you.  Everyone within the Trust has a responsibility for, and is committed to, safeguarding and promoting the welfare of vulnerable adults, children and young people and for ensuring that they are protected from harm, ensuring that the Trusts Child Protection and Safeguarding Adult policies and procedures are promoted and adhered to by all members of staff. |

PERSON SPECIFICATION

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| **Job Title** | **Senior X-Ray Engineer** |

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| **Requirements** | **Essential** | **Desirable** |
| **QUALIFICATION/ SPECIAL TRAINING**  Educated to BTEC HNC level or 5 years appropriate experience  Experience in Electronic field service and diagnostic repair  Experience in Electro Mechanical Engineering  The post holder is required to be on the Register of Clinical Technologists | E  E | D  D |
| **KNOWLEDGE/SKILLS**  I.T literate with understanding of networks |  | D |
| **EXPERIENCE**  Experience in medical equipment engineering including Radiographic equipment  Understanding of working in a clinical environment and although this is a non-patient facing role abide patient confidentiality |  | D |
| **PERSONAL ATTRIBUTES**   * Ability to self-manage and work alone where appropriate * Good interpersonal skills * Good communication skills at all levels * Good organisation skills * Able to work as a team member * Leadership skills | E  E  E  E  E | D |
| **OTHER REQUIREMENTS**  To show evidence of maintenance of technical and professional skills and participation in Continuous Professional Development to such a level required to remain eligible for Registration by the Register of Clinical Technologist.  The post holder must demonstrate a positive commitment to uphold diversity and equality policies approved by the Trust.  Full driving licence and ability to travel to other locations as required. | E  E  E |  |

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|  | | **FREQUENCY**  **(Rare/ Occasional/ Moderate/ Frequent)** | | | |
| **WORKING CONDITIONS/HAZARDS** | | **R** | **O** | **M** | **F** |
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| **Hazards/ Risks requiring Immunisation Screening** | |  |  |  |  |
| Laboratory specimens | N |  |  |  |  |
| Contact with patients | N |  |  |  |  |
| Exposure Prone Procedures | N |  |  |  |  |
| Blood/body fluids | N |  |  |  |  |
| Laboratory specimens | N |  |  |  |  |
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| **Hazard/Risks requiring Respiratory Health Surveillance** |  |  |  |  |  |
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| Solvents (e.g. toluene, xylene, white spirit, acetone, formaldehyde and ethyl acetate) | Y |  |  |  |  |
| Respiratory sensitisers (e.g isocyanates) | N |  |  |  |  |
| Chlorine based cleaning solutions  (e.g. Chlorclean, Actichlor, Tristel) | Y |  |  |  |  |
| Animals | N |  |  |  |  |
| Cytotoxic drugs | N |  |  |  |  |
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| **Risks requiring Other Health Surveillance** | |  |  |  |  |
| Radiation (>6mSv) | Y |  |  |  |  |
| Laser (Class 3R, 3B, 4) | N |  |  |  |  |
| Dusty environment (>4mg/m3) | Y |  |  |  |  |
| Noise (over 80dBA) | N |  |  |  |  |
| Hand held vibration tools (=>2.5 m/s2) | N |  |  |  |  |
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| **Other General Hazards/ Risks** | |  |  |  |  |
| VDU use ( > 1 hour daily) | Y |  |  |  |  |
| Heavy manual handling (>10kg) | Y |  |  |  |  |
| Driving | Y |  |  |  |  |
| Food handling | N |  |  |  |  |
| Night working | N |  |  |  |  |
| Electrical work | Y |  |  |  |  |
| Physical Effort | Y |  |  |  |  |
| Mental Effort | Y |  |  |  |  |
| Emotional Effort | Y |  |  |  |  |
| Working in isolation | Y |  |  |  |  |
| Challenging behaviour | Y |  |  |  |  |