



Job Description and Personal Specification

Job Title - Principal Engineering
Manager



For the Attention of All Applicants

December 2020

Job Description Notice of Change

NHS Scotland Assure is a new service within NHS National Services Scotland that brings together the experience and knowledge of Health Facilities Scotland (HFS) and the Antimicrobial Resistance and Healthcare Associated Infection (ARHAI).

As a result the job description(s) associated with the current vacancy still reflects the HFS and ARHAI structure. Candidates are advised that all job description(s) shall be updated over the coming months to reflect NHS Assure branding and organisational structure as part of the establishment of the new service.

NHS NATIONAL SERVICES SCOTLAND

JOB DESCRIPTION

1. JOB DETAILS

Job Title	Principal Engineering Manager
Immediate Senior Officer/ Line Manager	Head of Engineering
Department	Health Facilities Scotland
SBU	PCF
Location	Glasgow / Edinburgh
CAJE Reference	NPPRCFG691

2. JOB PURPOSE

The main purpose of the job is to providing professional leadership and technical/managerial advice in Engineering and Technology in healthcare in NHS Scotland.

The post holder will be responsible for specified areas of professional NHS Engineering such as Building Services, Medical Gases, Ventilation, Electrical Services, etc. and the preparation of national operational policy and guidance for NHS Scotland. This work may be undertaken in conjunction with other UK Health Organisations or as a stand-alone production, based on 'in-house' research. The post holder reports into the Head of Engineering.

The post holder will be expected to provide expert, authoritative advice on Engineering and Energy to workshops, seminars, Boards' senior management and the Scottish Government etc.

The post holder will be expected to prepare briefs, oversee and manage as an expert client, research projects, technical publications etc. carried out by Universities and consultants on behalf of NSS - HFS. Overseeing and managing documents to final publication is an important feature of the job; a high quality production is essential for national publications.

The post holder will provide the Engineering lead on the HFS' safety and hazard investigations etc. which are primarily of an engineering nature, but may relate to general building issues involving incidents which can be of a fatal nature.

The post holder will manage specialist engineering Authorising Engineers who will assist Boards in their compliance with National engineering guidance.

3. DIMENSIONS

Key activities include developing and implementing national operational policy on Engineering, Environment and related topics, providing national leadership and support to NHS Scotland professionals in the above fields, and supporting the Head of Engineering and the Assistant Director in leading and managing the Scottish Engineering Technology Advisory Group and actively contributing to and advising the Strategic Facilities Group and Scottish Government.

The national procurement and maintenance budget is of the order of £2 billion and as such, the decisions made as a consequence of the post holder's advice can have a major financial impact. The health, safety and efficiency considerations are equally significant. The post holder will be a budget holder for the engineering department and will include bids, business plans and sign-off for future budget requirements for approximately £200,000.

The post holder will contribute to the strategic development of NHS Scotland and provide written and oral reports to various HFS groups and the Scottish Government.

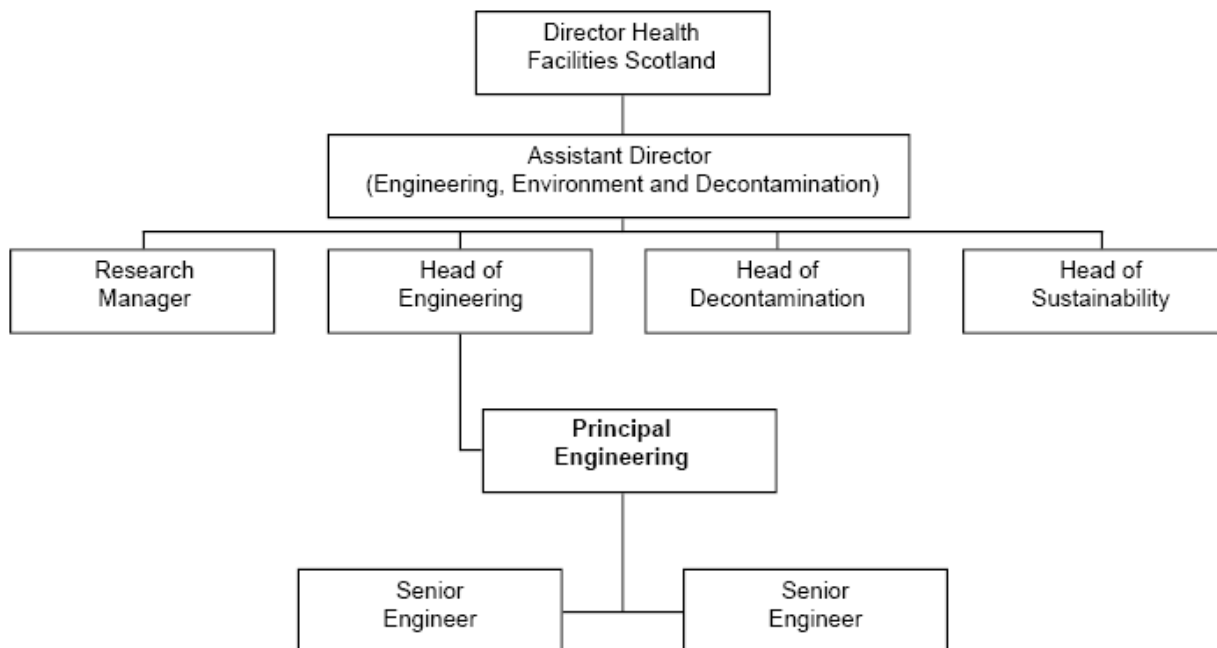
The post holder will be responsible for line managing 5 (or more as required) staff, consultants or contractors engaged for the preparation of technical or managerial material. This will include managing Absence, any HR Case management and Project Management staff who are working on multiple projects.

The post holder is responsible for the fulfilment of the HFS Engineering business plan in the areas of: -

- Ventilation systems,
- Medical Gas systems,
- Water and drainage systems,
- Electrical systems
- Other relevant engineering systems, and
- Safety reporting and investigation.

The post holder is responsible for the Engineering advice to the National Estates and Facilities Education & Training programme on seminars, CPD and courses.

4. ORGANISATIONAL CHART



5. ROLE OF THE DEPARTMENT

Health Facilities Scotland, as a Division of National Services Scotland, provides national leadership in Facilities Services.

Health Facilities Scotland is a multi-discipline organisation working in partnership with NHS Scotland Health Boards, the Scottish Partnership Forum, the Scottish Government, Department of Health (England), NHS Wales and Northern Ireland.

HFS works closely with the Scottish Government to establish professional and technical standards and best practices, including the promotion of new initiatives in the field of healthcare property and facilities management. This assists NHS Scotland in meeting the Government's policy and strategic aims as well as its own targets.

HFS has a key national role for the development and publication of national operational policy, standards, strategy and technical guidance for NHS Scotland in relation to non-clinical professional healthcare subjects including Architecture, Building, Science and Engineering, Planning, Environment, Estates and Facilities Management, Construction Procurement and allied technical topics. In addition, HFS delivers an extensive education and training programme in relation to each of the aforementioned subjects and is also responsible for the national Hazards and Safety Action Notice service for NHS Scotland, which is coordinated UK wide.

The post holder leads the Engineering teams of Health Facilities Scotland. This Section provides the roles of an expert client, research projects, technical publications and a National Engineering advice service to Health Facilities Scotland's Director, NHS Boards and the Scottish Government. Accuracy, quality and relevance of the Health Facilities Scotland's published work are an important feature of the work. A high quality product is essential for these national publications, which have a direct bearing on the safety and efficiency of service provision in NHS Scotland.

The work of Health Facilities Scotland entails the post holder leading and contributing to a range of standing and short life working groups at national and UK level.

The Engineering, Environment and Decontamination Section of Health Facilities Scotland leads and contributes to the work of the Scottish Engineering Technology Advisory Group, which comprises the director / manager for engineering from all NHS Scotland bodies. The SETAG works with the UK Knowledge Network Groups on which the post holder will represent NHS Scotland. These bodies form the reference groups for policy at Scottish and UK level respectively.

6. KEY RESULT AREAS

1. The NHS operates some of the most complex and technologically sophisticated buildings in use anywhere, and a key responsibility of this post is the provision of leadership, expert advice and guidance to enable NHS Scotland staff to provide, operate and maintain these highly complex facilities efficiently, safely and in compliance with legislation. In addition this will include the development engineering matters related to a centre which will assist with the built health care environment including production of assurance audits.
2. The post holder is responsible for the development and implementation of national standards and best practice in the Engineering field.

3. The post holder is responsible for elements of research and development relating to engineering and ensuring that the build environment is safe for patients.
4. The post holder will actively initiate, direct, develop and participate in the research and development of non-clinical technologies to advance the quality of the environment and healthcare within the NHS in the UK. Collaboration will be required with the HFS Research Manager and Antimicrobial Resistance and Healthcare Associated Infection (ARHAI) research colleagues. Topics may include: medical gas quality of supplies, chlorination of water supplies, chloramine and pipe work materials, fittings and seals, the use of plastic ductwork, decontamination of water systems.
5. Additionally, the Research & Development / analysis and judgment associated with product failures, accidents, attempted suicides and fatalities. The identification of the cause and a programme to eliminate this throughout the Service. Liaise with Health & Safety Executive as required. This will also require collaboration with the HFS Incident Reporting and Investigation Centre (IRIC) Team. Previous areas of investigation have included: elevators, electrically operated beds, medical gas outlets, windows (as points of escape or ligature), showers (as points of ligature, scalding or legionellae), medical IT power supplies, cooling fans, pharmaceutical refrigerators, safety flooring materials.
6. The post holder will anticipate and respond to emerging national policy and legislation and will be required to develop and interpret national strategies, guidance and policy to support the achievement of NHS Scotland and Scottish Government goals.
7. The Post holder is responsible for the production and dissemination of a wide range of guidance, advice and operational policy relating to Healthcare Engineering. This involves influencing skills of the highest order for colleagues, both within and outwith NHS Scotland, regulators and legislators, overcoming resistance to advance the interests of NHS Scotland.
8. Organisation of, and speaking at, educational events and conferences are major job requirements. The skills to communicate highly complex and often sensitive and confidential information to staff at all levels within NHS Scotland and other organisations in oral, written and visual forms is a requirement of the post.
9. The post holder leads a range of national working groups and chairs meetings at national and international level on a range of complex specialist subjects with often conflicting priorities and viewpoints, the impact of which extends to the efficiency and effectiveness of estates and facilities management services across NHS Scotland.
10. The fulfilment of the agreed annual Health Facilities Scotland Business Plan ensuring efficiency and financial probity is a key result area. Financial control and reporting of delegated budgets is also a key responsibility.
11. Working seamlessly with, and deputising for the line manager, such that either can represent Health Facilities Scotland when dealing with NHS Scotland or external organisations is also a requirement.
12. The post holder will work with engineering colleagues from the service to plan the short, medium and long term future management and technology for the delivery of critical engineering services, driving innovation and efficiency whilst maintaining and improving safety. These plans are strategic and are looking forward 5 years.

13. Managing the engineering budget of HFS and ensuring maximum impact, budgetary control and financial transparency are required.
14. Manage specialist engineering Authorising Engineers who will assist Boards in their compliance with National engineering guidance.
15. Develop engineering strategy and planning to meet the service needs and those of the LDP.

7. ASSIGNMENT AND REVIEW OF WORK

The post requires highly developed planning, organisational and analytical skills to ensure appropriate and timely action to deliver the highest quality national guidance and advice for NHSS. The post holder works with a high degree of autonomy and will decide on the policies as best interpreted.

Often contradictory and incomplete information must be assessed, judged and used to form national operational policy. This may have major financial and operational consequences for NHS Scotland, some of which might be controversial or are likely to be of significant public and media interest, given the prominence of Engineering issues in patient safety and the current political and economic climate. An example might be the promotion of changed practices in relation to fatal infections of patients from an engineering system. This work may have an impact across NHS Scotland.

The post holder reports to the Head of Engineering with whom strategy, workload planning and personal objectives are agreed annually. Although the post holder works within NSS corporate strategies, business plans, and departmental objectives, the Engineering brief does take the post holder beyond the 'traditional' remit of HFS' property and estate management functions and into the arena of having to evaluate and review a range of NHSS policies and procedures on safety grounds.

In this respect, both at strategic policy and operational levels, the post holder is required to use clear initiative and has considerable freedom to act, questioning established norms and generating new ideas and solutions, including advocacy and development work to establish new policies or procedures. For example, the post holder will be heavily involved at a national level in creating new procedural guidance on the procurement and construction of effective and safe healthcare buildings.

The freedom to act and the use of initiative also link to the responsibility the post holder has for identifying the need for, and commissioning and managing research and development work, including a requirement to identify partner organisations and secure funding sources. The post holder will meet on a monthly basis with the Head of Engineering to update progress and agree tactics or further actions.

The post holder will receive a great deal of extremely complex and specialist information from a wide variety of sources, including national and international experts, professional bodies and front line practitioners. This often contradictory and incomplete information must be assessed, judged and used to form national technical operational policy, which may have major financial and operational consequences for NHS Scotland.

Management is by periodic meetings with the Head of Engineering, in addition to interaction via various stakeholder groups although the post holder is expected to identify priorities and risks and manage the implications without reference to the Head of Engineering in most cases.

The workload of specialist Authorising Engineers will be developed by the Post Holder to meet the needs of the Service and Boards. This will include reporting on AE audits and ensuring training needs are derived and monitored.

8. COMMUNICATIONS AND WORKING RELATIONSHIPS

The post requires oral and written communication skills of the highest order, as befits a national lead. The post holder must communicate highly complex and highly sensitive information to NHS Scotland colleagues up to Executive Director level, and colleagues nationally and internationally, overcoming resistance and influencing peer organisations at senior levels to advance the interests of NHS Scotland. These communications can be by oral, written or visual means and may involve subjects requiring sensitivity and an understanding of the political nature of the NHS. Directors of NHS Scotland Boards are key contacts in achieving the objectives above.

Assurance may have to be provided to NSs or NHS Scotland Boards that the decisions made are technically sound and the optimum for the Service. This may include producing guidance which has a financial implication which may have financial barriers to implementation.

The post holder may have to manage and resolve conflict at various stakeholder engagements. The post holder will oversee the process of conflict resolution with stakeholders to maintain good relationship and outcomes.

The post holder is expected to present papers at national and international conferences to large audiences and other events representing the interests of NHS Scotland. Such presentations may be to NHS boards, Local Authorities, Scottish Government, UK Health Departments, trade unions, professional institutes, European Health Property Network, peer training events, etc.

9. MOST CHALLENGING PART OF THE JOB

The professional leadership element of the job is of paramount importance in ensuring that the Engineering policies and technology adopted by NHS Scotland are optimised in terms of cost, quality and legal compliance.

The post holder is required to interact with and influence colleagues, industry and regulators at board and national levels to promote the interests of NHS Scotland. This entails the deployment of a comprehensive range of interpersonal and influencing skills and success is dependent on the effective use of these skills.

10. SYSTEMS

The post holder is responsible for management, development and production of computerised web based Data Gathering systems for NHS Scotland, which requires an understanding of software systems design, testing and implementation, including the high voltage equipment incident management system (NEDERS).

A high degree of computer literacy for the development of software based management systems, is an essential skill to satisfy the analysis of NHS Scotland's engineering data.

11. WORKING ENVIRONMENT AND EFFORT

Physical Effort

The post is largely office based, however there is a requirement for frequent travel and driving for periods of several hours. Access to plant rooms and machinery spaces is also required.

Mental Effort

The post requires extended periods of intense concentration, creating and checking technical guidance, policy and safety information, with interruptions. The consequences of mistakes in this can involve danger to health including life, or financial consequences extending to millions of pounds.

Emotional Effort

There is an occasional need to dismiss contractors where staff may lose their jobs, discuss inadequate quality of work with contractors or staff, deal with staff personal issues and meet the conflicting needs of various parts of the service where colleagues may not appreciate the prioritisation of their issues.

12. ENVIRONMENTAL / WORKING CONDITIONS & MACHINERY AND EQUIPMENT

There is a frequent need for driving significant distances or all day meetings with limited breaks.

There is an occasional need to access plant rooms, machinery spaces or confined spaces with loud noise and elevated temperatures.

13. QUALIFICATIONS AND/OR EXPERIENCE SPECIFIED FOR THE POST

The post holder requires having knowledge of, being proficient in, or undertaking training in the following: -

- Educated to Masters degree level, or equivalent experience, in an Engineering-related subject, and Membership or Fellowship of one or more relevant Professional Institutes is required
- Highly developed specialist knowledge of EU, UK and Scottish government policy, legislation and regulation in Engineering, gained through considerable post graduate experience at senior level in the public sector (e.g. NHS, local authority) or consultancy environment, supported by relevant professional development or training
- In-depth knowledge and understanding of the NHSS itself, how it operates in the context of the above legislation, the opportunities, and priorities and procedures of local authorities and other Community Planning Partners with whom NHSS shares and is increasingly required to deliver a range of joint services
- In-depth knowledge of Engineering operations and of Control of Substances Hazardous to Health (COSHH) regulations
- Have developed and be able to maintain an extensive network of relevant contacts in government, public bodies and the private sector linked to Engineering issues. These include, among others: Scottish Government directorates; Scottish Environment Protection Agency; Professional institutions; Regulators.

- Highly developed interpersonal, communication, organisational and capacity development skills, in particular breadth of experience of formal training and environmental awareness raising for diverse audiences (from policy makers and senior managers to front-line staff and public or community representatives)
- Highly developed project management skills, including business case development, coordination of research contracts and consultants, work planning and budgetary management gained from public or private sector
- Excellent supervisory / planning / organisational skills to ensure efficiency and continued improvement of the service
- Proven record of relevant achievement and continuing professional development
- Numerate, literate and practical, with excellent analytical skills
- Physical skills needed include the ability to drive, the accurate use of a keyboard and other IT equipment, and general office skills. Use of some specialist environmental monitoring equipment may also be required.

14. JOB DESCRIPTION AGREEMENT

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

Postholder Signature:	<input type="text"/>	Date:	<input type="text"/>
Postholder Print:	<input type="text"/>		
Manager Signature:	<input type="text"/>	Date:	<input type="text"/>
Manager Print:	<input type="text"/>		
Manager Title:	<input type="text"/>		

NHS NATIONAL SERVICES SCOTLAND PERSONAL SPECIFICATION

Job Title: Principal Engineering Manager
Grade: Band 8C

REQUIREMENT	ESSENTIAL	DESIRABLE
EXPERIENCE	<ul style="list-style-type: none"> • Highly developed specialist knowledge of EU, UK and Scottish government policy, legislation and regulation relating to Healthcare Engineering, gained through considerable post graduate experience at senior level in the public sector (e.g. NHS, local authority) or consultancy environment, supported by relevant professional development or training • Chartered Engineer status, with a degree in an appropriate subject, and membership or fellowship of one or more related professional institutes are requirements • Highly developed interpersonal, communication, organisational and capacity development skills, in particular breadth of experience of formal training and awareness raising for diverse audiences (from policy makers and senior managers to front-line staff and public or community representatives • Highly developed project management skills, including business case development, coordination of research contracts and consultants, work planning and budgetary management gained from public or private sector • Excellent supervisory / planning / organisational skills to ensure efficiency and continued improvement of the service • Numerate, literate and practical, with excellent analytical skills • Physical skills needed include the ability to drive, the accurate use of a keyboard and other IT equipment, and general office skills. Use of some specialist environmental monitoring equipment may also be required. 	Project Management Qualification.

REQUIREMENT	ESSENTIAL	DESIRABLE
QUALIFICATIONS	<ul style="list-style-type: none"> • Educated to Masters degree level, or equivalent experience, in an Engineering-related subject, and Membership or Fellowship of one or more relevant Professional Institutes is required • Proven record of relevant achievement and continuing professional development 	
TRAINING	<ul style="list-style-type: none"> • In-depth knowledge of Engineering operations and of Control of Substances Hazardous to Health (COSHH) regulations 	
PERSONAL QUALITIES	<ul style="list-style-type: none"> • Highly developed communication skills, both verbal and written • Enthusiastic approach with excellent organisational skills • Proven track record as a team player • Able to work in a multidisciplinary team, establish good working relationships with medical, scientific, admin and other colleagues. • Ability to work to tight timescales and deadlines. 	