

BIOMEDICAL EQUIPMENT TECHNICIAN II

This is supervisory and skilled work in the installation, calibration, repair and maintenance of a wide variety of patient care work of a specialized nature on highly critical patient employee establishes assignment priorities, determines scheduled maintenance and performs the maintenance, and inspection on newly purchased equipment. Work includes supervision of lower level technicians as well as instruction on application and operation to health care professional users; duties independently with only general infrequent instructions Engineer.

I. DIFFICULTY OF WORK:

Complexity - Employee spends a large portion of time repairing a wide variety of patient care equipment, or a smaller number of specialized pieces of equipment of a highly critical nature, and performing physical, functional, and electrical safety equipment inspection as part of the scheduled maintenance program. This requires the use of standard as well as specialized medical testing equipment. Materials and devices used include hand-tools, multi-meter, oscilloscope, calibration standards and instruments, cleaning solvents, adhesives, and lubricants. Precision is required in measurement and calibration, and accuracy in all documentation. Considerable knowledge of electronics, optics, and mechanics, and thorough knowledge of a variety of moderate to highly complex patient care equipment is required for job performance.

Guidelines - A wide range of technical guidelines, manuals and resources are available to the employee. Detailed manufacturers' technical manuals and schematics are most frequently used, and are updated periodically by this employee. Occasionally, guidelines are not available, and employee discretion and sound judgement are required. Specific standards dictate what is needed in the preventative maintenance program administered by this employee, but guidelines do not exist describing how to achieve compliance.

II. RESPONSIBILITY:

Accountability - The employee is responsible for timely repair of all patient care equipment in the assigned section of the hospital; the proper and safe functioning of each piece of equipment repaired by this employee, and compliance with preventative maintenance standards are major responsibilities. There is considerable opportunity to compromise patient diagnosis, care, or therapy, as well as to jeopardize hospital accreditation.

Consequence of Action - Errors made may result in wasted funds, inefficient use of time, patient inconvenience, delayed diagnosis, patient injury or even death.

Review - Employee reports administratively to the Clinical Engineer. Employee job performance is reflected in results obtained such as successful equipment repair and smooth operation of the preventative maintenance program. Unusually complex equipment problems are referred to the Clinical Engineer.

III. INTERPERSONAL COMMUNICATIONS:

Subject Matter - Technical subject matter is not readily understood by non-technical staff.

Purpose - Employee gives instruction to users of instrumentation in their proper application and operation. Equipment manufacturers are occasionally contacted to procure updated guidelines; contact with sales representative occurs for the purpose of new equipment evaluation or with service representatives for warranty repair.

Coordinating parts purchases and equipment downtime necessitates contact with administrative personnel.

IV. WORK ENVIRONMENT:

Nature of Working Conditions - Base of operations for the employee is an instrumentation laboratory; employee may be called, at any time, to any location within the hospital (including the ICU's, clinics, and medical laboratories).

Hazards - Injury to the employee is unlikely; however, employee is exposed to infectious patients, high electrical voltages, moving machinery, radiation, and toxicities found in the clinical laboratories.

V. RECRUITMENT STANDARDS:

Knowledges, Skills, and Abilities - Considerable knowledge of the construction, operation, and repair of various types of electronic and medical testing equipment; or advanced, specialized knowledge of highly critical equipment; some knowledge of medical terminology; ability to determine the cause of and repair malfunctioning equipment, to perform work effectively under stressful situations, and to interact with health care personnel and patients; ability to assign and supervise the work of lower level technicians, and develop and revise the medical instrumentation preventative maintenance program.

Minimum Training and Experience - Graduation from a two-year technical college with an Associate Degree in Biomedical Equipment Technology or Laser and Electro-Optics Technology and a minimum of two years of directly related experience in the maintenance and repair of a full range of biomedical equipment; or an equivalent combination of training and directly related experience.