UNIVERSITY OF SOUTHERN CALIFORNIA

Cyclotron Specialist

Job Code: 187831

Grade: HH
OT Eligible: Yes
Comp Approval: 1/1/2007

JOB SUMMARY:
Participates in the daily production of clinical radiotracers. Operates the RDS-112 Cyclotron and related instrumentation. Oversees maintenance of the cyclotron, related instrumentation and cyclotron facility. Designs, constructs and assembles all parts for the sub-systems of the RDS-112 Cyclotron. Assists in the clinical research and development of investigational radiopharmaceuticals. Ensures quality control and safety standards are maintained. May direct work of technical personnel.

JOB ACCOUNTABILITES:

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<td>Designs, constructs and assembles all parts for the sub-systems of the RDS-112 Cyclotron that include ion source, anode and magnet power supplies, radio frequency oscillator systems.</td>
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<td>Provides cyclotron engineering details, advise and information to the supervisor.</td>
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<td>Plans and schedules all projects related to the cyclotron to meet the appropriate technical protocols recommended by the manufacturer.</td>
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<td>Assists in the clinical research and development of investigational radiopharmaceuticals. Assists in the development of new radiotracers used in the clinical research.</td>
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<td>Operates the RDS-112 Cyclotron and related instrumentation. Oversees maintenance of the cyclotron, sophisticated laboratory/scientific equipment and cyclotron facility. Troubleshoots problems with equipment. Schedules preventative maintenance of equipment on a regular basis. Evaluates needs and makes purchasing recommendations. Liaises with vendors for purchasing supplies.</td>
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<td>Ensures that all research radiopharmaceuticals are formulated, maintained and dispensed in accordance with University requirements.</td>
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<td>Contributes to the development and implementation of laboratory procedures and policies.</td>
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<td>Demonstrates techniques, equipment usage and operation or procedures to unit personnel or others.</td>
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<td>Develops, enhances and maintains information systems to support operations. Ensures that information is reconciled on a regular basis.</td>
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<td>Complies with any quality control policies and procedures and maintains required documentation. Identifies and assesses quality control problems and refers to management for action. Makes recommendations through detailed status reports.</td>
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Ensures complete implementation and compliance with standards, policies and safety regulations.

Handles and disposes of hazardous and non-hazardous materials, in accordance with safety protocols.

Maintains appropriate records of all research pharmaceuticals from the point of manufacturing to the administration and final disposal.

Performs other related duties as assigned or requested. The University reserves the right to add or change duties at any time.

*Select E (ESSENTIAL), M (MARGINAL) or NA (NON-APPLICABLE) to denote importance of each job function to position.

**EMERGENCY RESPONSE/RECOVERY:**

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<th>Essential</th>
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<td>In the event of an emergency, the employee holding this position is required to “report to duty” in accordance with the university’s Emergency Operations Plan and/or the employee’s department’s emergency response and/or recovery plans. Familiarity with those plans and regular training to implement those plans is required. During or immediately following an emergency, the employee will be notified to assist in the emergency response efforts, and mobilize other staff members if needed.</td>
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**JOB QUALIFICATIONS:**

**Minimum Education:**

Bachelor's Degree

**Minimum Experience:**

2 Years

**Minimum Field of Expertise:**

Directly related experience in specialized field. Knowledge of advanced electronic theory and its practical application, physics and various mechanical disciplines. Demonstrated expertise on radio frequency and magnet systems associated with cyclotrons. Demonstrated ability to fabricate, assemble and install electronic components and assemblies following prints, diagrams, rough sketches or verbal instructions. Demonstrated knowledge of radioactive procedures and protocols. Demonstrated ability in understanding the electronic controls associated with vacuum, pneumatic, magnetic and hydraulic systems. Demonstrated ability in monitoring electronic operating systems to prevent and detect equipment malfunction.

**Preferred Education:**

Master's Degree
Pharm.D.

**Preferred Field of Expertise:**

California Pharmacist License

**Skills:** Other:

- Analysis
- Assessment/evaluation
- Communication -- written and oral skills
- Conceptualization and design
- Knowledge of applicable laws/policies/principles/etc.
Organization
Planning
Problem identification and resolution
Project management
Research
Scheduling
Teaching/Training

Skills: Machine:

Computer Network (Department or School)
Computer Peripheral Equipment
Personal Computer

Supervises: Level:

May oversee student, temporary and/or casual workers.

Comments:

May oversee technical personnel.

SIGNATURES:

Employee: _______________________________  Date: _______________________________

Supervisor: _______________________________  Date: _______________________________

The above statements are intended to describe the general nature and level of work being performed. They are not intended to be construed as an exhaustive list of all responsibilities, duties and skills required of personnel so classified.

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