Opening for Nuclear Reactor Operator at the McClellan Nuclear Research Center at UC Davis

Employer:	University of California, Davis
Location:	McClellan Nuclear Research Center 5335 Price Ave, McClellan Park, CA 95652, USA https://mnrc.ucdavis.edu/
Contact:	Dr. Wesley Frey, wesfrey@ucdavis.edu (916) 614-6200
Position:	ASSISTANT DEVELOPMENT ENGINEER (Reactor Operator) (More senior positions considered for well qualified applicants)

POSITION DETAILS

Job Summary:	Under the general supervision of the responsible level 3 radiographer, serve as a certified neutron radiographer (level I or level II) and Reactor Operator responsible for direct supervision and safe operations of commercial radiography production, allocated bays and other facilities utilized for radiography activities.
Department Specific Job Scope:	Primary worksite is located at the McClellan Nuclear Radiation Center. Incumbent must participate in radiation screening program; background check required. Maintain Level I or II radiographer certification and reactor operator license (both to be completed within 12-24 months of hiring date). Incumbent must be familiar with reactor operations. All employees of MNRC are held responsible for the safe operations of the facility, for the safety of personnel and equipment, and for strict adherence to the terms and conditions of technical specifications and operational requirements of equipment and facility. This requirement includes adhering to all departmental quality control requirements and independently identifying perceived unsafe practices or equipment and bringing them to the attention of the appropriate person for resolution.

Essential Responsibilities:

70% Neutron Radiography Operations

-As a certified Level I or II radiographer, support of commercial radiography including performing radiography duties as needed.
-Ensuring safe operation of the radiography, allocated bays, and other facilities utilized for radiography activities.
-Provide guidance to all other personnel engaged in industrial bay activities requiring radiography.
-Advise Director and Assoc. Director, Reactor Operations, of all unsafe practices and condition of radiography equipment.
-Work directly with customers and potential customers to determine feasibility and extent of radiographic inspections. Manage setups and radiographic inspections. Interpret, evaluate, and document test results. Provide support for customer service from customer inquiries through order receipt and confirmation.
-Oversee and manage on-the-job training of Level I radiographers and radiographer trainees in accordance with radiography standards and specifications.
-Manage and evaluate imaging capabilities regularly, including comparative analysis on the capabilities of other Institutions.

30% Reactor Operator

-As the licensed reactor operator, responsible for maintaining and repairing critical reactor control systems, monitor, direct & approve operations involving start up, power changes and reactor shutdowns.
-Leads the technical reactor activities during the operation on the day-today basis. Rotating the responsibility with the other reactor operators.
-Oversees reactor maintenance, water chemistry treatment, and nuclear surveillance testing.
-Interprets experimental data to ensure the safety of the reactor and experiments ensures safety of the facility by controlling entry into restricted areas.
-Provides guidance to licensed reactor operators and other personnel involved in the operation, maintenance and testing of the reactor and associated equipment.
-Advises the reactor operations supervisor and management on matters affecting the condition and status of the reactor facility and equipment.
-Provides reports and data as required by management.

Physical Demands:

-Work in confined spaces.
-Sit at workstation for up to 8 hours.
-Lift up to 45 lbs.

Work Environment:

-Work in areas that may be radioactive, contain energetic devices (hazard division 1.1, 1.2, 1.3 and 1.4), and require fall protection.
-Must participate in radiation dose monitoring and regulation program.
-May require in and out-of-state travel occasionally (~2-3 weeks per year maximum).
-May require working outside the standard schedule, with supervisor's preauthorization.
-Obtain and maintain Nuclear Regulatory Reactor Operator License with relicensing at 6 year intervals.
-Submit and pass radiography recertification examinations at the minimum 3 year intervals.

-Pass an annual vision examination demonstrating the visual acuity to MNRC Doc 0085 current rev, natural or corrected, at a distance of not less than 12 inches, and differentiate the colors used in the neuron radiography inspection processes.

This position is a critical position and subject to a background check. Employment is contingent upon successful completion of background investigation including criminal history and identity checks.

QUALIFICATIONS

Minimum Qualifications:

- Possess and maintain active reactor operators license as governed by the Nuclear Regulatory Commission. Knowledge and experience in maintaining a Level I or II radiography license and applicable certifications.
-Expertise, experience and knowledge in monitoring, directing, testing and approving operations involving reactor start-up, power changes and reactor shut downs.
- Expertise, experience and knowledge in reactor maintenance, water chemistry treatment and nuclear surveillance testing.
-Knowledge of Federal and State licensing agency requirements and conditions of technical specifications and operational requirements of nuclear reactor and skills to implement them.
-Experience coordinating research experiments and interpreting on-the-spot reactor usage data to ensure safety.
-Experience conducting educational training and guidance to reactor operators and other personnel involved in reactor and radiography related activities.
-Knowledge of safety and security issues associated with nuclear reactors and with controlling entry into restricted areas and skills to implement both.
-BA or BS degree in physical science or equivalent experience from the US Nuclear Navy program.

Preferred Qualifications:

-Organizational skills to meet numerous established deadlines; flexibility to respond to unforeseen requests and establish and effective administrative flow system to maintain a high level of productivity.
Advanced degree in nuclear physics, radiation health physics, mechanical engineering, or electrical engineering.
-Experience in health physics practices and radiation protection equipment.
-Experience conducting, interpreting and evaluating radiography test results for acceptance or rejection in accordance with written criteria.
-Skills to understand and interpret verbal and/or written instructions.
-Experience maintaining facility cleanliness and condition up to departmental standards.
-Experience developing written instructions, processes & procedures for training operations.
-Experience performing work with independence and decision-making responsibility.
-Experience maintaining accurate documentation and records.
-Experience assisting researchers with design and implementation of radiography experiments.
-Working knowledge of analog circuitry.