

ORNL Publications

External Publication

Job Posting Title

Experiment Safety Engineer / NB50603627

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Purpose

The Neutron Sciences Directorate (NScD) at Oak Ridge National Laboratory (ORNL) operates the High Flux Isotope Reactor (HFIR), the United States' highest flux reactor based neutron source, and the Spallation Neutron Source (SNS), the world's most intense pulsed accelerator based neutron source. Together these facilities operate 30 instruments for neutron scattering research, each year carrying out in excess of 1,000 experiments in the physical, chemical, materials, biological and medical sciences. HFIR also provides unique facilities for isotope production and neutron irradiation. To learn more about Neutron Sciences at ORNL go to: <http://neutrons.ornl.gov>.

The Nuclear Safety and Experiment Analysis (NSEA) Group within the Research Reactors Division (RRD), Neutron Sciences Directorate (NScD), Oak Ridge National Laboratory (ORNL), seeks applications for an applied Research and Development (R&D) Experiment Safety Engineer.

Major Duties/Responsibilities

- Provide feasibility evaluations of prospective in-vessel and gamma irradiation experiments.
- Perform thorough reviews of irradiation experiments, and provide guidance to experimenters for preparing such experiments, with the responsibility of ensuring reactor safety and the authority to steer experimenters accordingly.
- Provide final review and documentation addressing any Unreviewed Safety Questions (USQ) or programmatic concerns with particular experiments; ultimately providing final authorization for insertion of experiments into the reactor.
- Provide experiment design, engineering and fabrication expertise for various materials research and isotope production programs.
- Act as primary point of contact and facility manager for the Gamma Irradiation Facility (GIF) at HFIR.
- Participate in HFIR experiment facility health monitoring, as well as upgrades to and the development of new experiment facilities.
- Interact frequently with scientists and engineers of various disciplines both inside and outside ORNL.
- Adhere to the rules and regulations that govern the operation of a DOE nuclear facility such as HFIR.

Qualifications Required

- Minimum of an M.S. degree in mechanical, nuclear, or aerospace or similar engineering discipline from an accredited university
- Minimum of 5 years direct experience designing and analyzing for a nuclear reactor core environment.
- Possess a thorough understanding of multiple engineering subject areas including but not limited to nuclear, mechanical, thermal, fluids, electrical and computational sciences.

- Possess problem-solving skills and the ability to apply those skills to a variety of problems.
- Be organized, detail-oriented and sensitized to a nuclear safety culture.
- Possess excellent written and verbal communication skills and enjoy working in a team environment, with collaboration at all levels, disciplines, and diverse cultural backgrounds both inside and outside the organization.
- The candidate must be customer-oriented, with a collaborative, positive, forward-thinking attitude.
- This position requires the ability to obtain and maintain a DOE "L" clearance.

This position is a Workplace Substance Abuse program (WSAP) testing designed position which requires passing a pre-placement drug test and participation in an ongoing random drug testing program in which employees are subject to being randomly selected for testing. The occupant of this position will also be subject to an ongoing requirement to report to ORNL any drug-related arrest or conviction or receipt of a positive drug test result.

Preferred Qualifications:

- A PhD degree in a related field.
- Experience with experiments at a research reactor.
- Experience in one or more modern engineering analysis tools such as MCNP, SCALE, COMSOL, ABAQUS, ANSYS, MATLAB, FORTRAN and/or Python is preferred.

This position will remain open for a minimum of 5 days after which it will close when a qualified candidate is identified and/or hired.

We accept Word(.doc, .docx), Excel(.xls, .xlsx), PowerPoint(.ppt, .pptx), Adobe(.pdf), Rich Text Format(.rtf), HTML(.htm, .html) and text files(.txt) up to 2MB in size. Resumes from third party vendors will not be accepted; these resumes will be deleted and the candidates submitted will not be considered for employment.

If you have trouble applying for a position, please email ORNLRecruiting@ornl.gov.

Notice: If the position requires a Security Clearance, reviews and tests for the absence of any illegal drug as defined in 10 CFR 707.4 will be conducted by the employer and a background investigation by the Federal government may be required to obtain an access authorization prior to employment and subsequent reinvestigations may be required.

If the position is covered by the Counterintelligence Evaluation Program regulations at 10 CFR 709, a counterintelligence evaluation may include a counterintelligence-scope polygraph examination.

ORNL is an equal opportunity employer. All qualified applicants, including individuals with disabilities and protected veterans, are encouraged to apply. UT-Battelle is an E-Verify Employer.