Job Title: Second Target Station Instrument Systems Manager

Requisition Id 8529

Overview:

Oak Ridge National Laboratory (ORNL) is seeking an Instrument Systems Manager to manage the Instrument Systems Work Breakdown Structure for the Second Target Station (STS) project. The STS is a > $2 Billion, Department of Energy project to be constructed at the ORNL Spallation Neutron Source (SNS). The STS will provide wholly new capabilities for the study of a broad range of materials with neutron scattering and support thousands of users from the physical, materials, and applied sciences and industry. The science capabilities provided by the instrument suite at the STS will complement those of the two existing DOE Office of Science neutron scattering user facilities at ORNL, the First Target Station (FTS) of the SNS and the High Flux Isotope Reactor (HFIR). The STS will deliver the highest peak brightness of cold neutrons in the world, which together with advances in neutron optics, instrumentation, and detectors, will ensure US leadership in neutron scattering for decades to come. The STS instrument systems group will design and construct an initial suite of STS neutron instruments with transformative new science capabilities.

Purpose:

The STS Instrument Systems Manager provides leadership of the STS Instrument Systems Section and coordinates the design and integration of all instrument subsystems to successfully deliver all instrument systems scope within the approved project baseline. Instrument Systems scope includes construction of 8 neutron scattering instruments, supporting infrastructure, and an integrated shielding system (bunker) near the target monolith. This position will ensure that the 8 project instruments will be able to deliver their defined science capabilities. This position will also ensure that the R&D activities associated with Instrument Systems are necessary and focused in key areas that mitigate risk and aim to improve instrument performance with well-defined deliverables.

This position works with the STS Technical Director to engage the user community in planning for the science success of the new source, developing new instrument concepts for the STS, and updating and evaluating the science drivers for the first instruments leading to development of commissioning and early science plans. The Instrument Systems Manager works closely with other project technical groups to ensure that the scientific requirements and physics design of the instruments are achieved.

Major Duties and Responsibilities:

- Coordinate the physics, technical designs while ensuring consistency with cost & schedule activity descriptions, establish and maintain the scientific requirements of the STS project instruments, and solicit community input into the instrument development process.
- Serve as the primary interface with STS project leadership for the Instrument Systems WBS area
- Serve as a key interface for Instrument Systems with other STS technical systems
- Serve as a key interface with the SNS operating organization, the Neutron Sciences Directorate (NScD) to ensure the eventual smooth STS transition to operations and that STS Instrument Systems are compatible with NScD expectations
- Manage the budget associated with the Instrument Systems WBS
- Develop and maintain project level interface control documentation including: Review and approve high-level design documentation including Systems Requirements, Document major procurement packages and Quality Assurance (QA) actions
- Ensure compliance with Environment, Safety and Health (ES&H) and QA requirements
- Provide leadership to continually improve the performance of the Instrument Systems section by managing professional development and training, creating a work environment where staff report issues and concerns without fear of retribution, and effectively learning from assessment and experience
- Engage with the user community to identify and develop instrument concepts, maintain consistent communication on project progress, and plan for the early science success of the instruments
- Promote a team approach to instrument development where individual expertise is recognized and employed
- Develop strong working relationships across the project with Cost Account Managers, line managers, sponsors, and project support organizations including ES&H, QA, business, project controls, and human resources
- When required, prepare presentations for, and responses to recommendations from, technical reviews and/or advisory committees

- Represent the STS Project by participating in and presenting project information at reviews, conferences and workshops
- Collaborate with appropriate external institutions to improve methodologies for instrument design and develop relevant technologies

Basic Qualifications:

- PhD in science or engineering with at least 10 years neutron scattering science experience
- A minimum of 10 years managing scientists and/or engineers, and/or as an instrument scientist leading the development and operation of a neutron instrument
- Excellent written and oral communication skills
- A strong record of scientific publication
- Must be available for some domestic and international travel

Preferred Qualifications:

- Experience in design of instruments at a spallation neutron source
- Experience as a scientist leading the construction of a new neutron instrument
- Familiarity with US Department of Energy expectations for the management of construction projects

Work Direction and Interface:
Position reports to the STS Technical Director

Authority/Approval Levels: Provides work direction to and coordination of Instrument Systems Group Leads for Science/Technology and Instrument Engineering. Acts as Technical Project Officer for specific procurement contracts.

Measures of Effectiveness:

- Ensures science requirements for STS Instruments are met
- Successful design, fabrication and installation of Instrument Systems equipment
- Successfully represents STS at reviews and other project meetings and workshops

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), Adobe (unsecured .pdf), Rich Text Format (.rtf), and HTML (.htm, .html) up to 5MB 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.

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.