

ELECTRONICS SPECIALIST/RADIOLOGICAL SYSTEMS

DESCRIPTION: Under general supervision, develops procedures and schedules radiation detection equipment for routine calibration and maintenance; performs related work as required.

EXAMPLES OF WORK: (A position may not be assigned all the duties listed, nor do the listed examples include all the duties that may be assigned.)

Calibrates radiation detection survey meters and radiological dosimeters using radioactive calibrators to ensure radiation detection equipment meets the required operational standards.

Repairs radiation detection instruments using transistor analyzer, signal generator, tube tester, oscilloscope, voltmeter and high-magnetic testers to ensure operational capability of radiation detection instruments.

Assembles Radiological Monitoring and Civil Defense Shelter Kits which may be composed of radiation detection instruments, dosimeters, low-voltage batteries, various manuals and publications to ensure the proper placement of required equipment and technical material in each specific type of kit.

Exchanges Radiological Monitoring and Civil Defense Shelter Kits, located in county civil defense offices statewide, with updated kits to ensure the availability of properly maintained radiation detection equipment and current civil defense technical and information manuals.

Operates Geiger counters, pocket dosimeters, and dosimeter chargers to ensure operational capability of equipment.

Inspects work area daily for radiation leakage using radiation detection survey meters to conform to State of Nebraska Health Department, Division of Radiological Health regulations.

Enters kit production data and other information pertaining to the receipt, inspection, test, repair, maintenance, and calibration of all radiation detection instruments and equipment to ensure accountability of all radioactive and related materials and to provide necessary records.

Inventories and confirms operational status of all radiation detection instruments and kits assigned to nuclear power plants in Nebraska, on a quarterly basis, to ensure all equipment is accounted for and maintained in work condition.

FULL PERFORMANCE KNOWLEDGES, ABILITIES, AND SKILLS REQUIRED: (These may be acquired on the job and are needed to perform the work assigned.)

Knowledge of: maintenance, calibration and repair guidelines and regulations of the Federal Emergency Management Agency and the State of Nebraska, Division of Radiological Health; the types of radiation detection meters and dosimeters to be placed in various detection kits; the physical location of all radiation detection kits in the county civil defense offices and the nuclear power plants; the types and proper usage of radioactive calibration equipment; the civil defense structure in the State of Nebraska; the public safety agencies in the State of Nebraska; types and uses of a variety of radiation detection instruments including but not limited to detection meters, dosimeters, and Geiger counters.

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Ability to: read and interpret federal and State guidelines and regulations pertaining to maintenance, calibration, repair and storage of radioactive materials and radiation detection kits and equipment.

ENTRY KNOWLEDGES, ABILITIES, AND SKILLS REQUIRED: (Applicants will be screened for possession of these through written, oral, performance, and/or other evaluations.)

Knowledge of: types and uses of electronic testing equipment including but not limited to transistor analyzers, signal generators, tube testers, voltmeter, oscilloscopes, and magnetic testers.

Ability to: operate radiation detection equipment and electronic testing equipment; read and interpret technical manuals, laws, rules and regulations governing the operation, storage, and maintenance of electronic testing equipment and related materials.

LEGAL REQUIREMENTS: (These must be met by all employees prior to attaining permanent status in this class.)

In accordance with the State of Nebraska Health Department, Division of Radiological Health, Rule 40, incumbents must possess a Radioactive Material User for Calibration Sources License.

JOB PREPARATION GUIDELINES: (Entry knowledge, abilities, and/or skills may be acquired through, BUT ARE NOT LIMITED TO, the following coursework/training and/or experience.)

Post high school coursework/training in operation and maintenance of electronic equipment and/or radiological materials handling, AND experience repairing and calibrating electronic and/or radiation generating equipment.