



Alaska Industrial Development and Export Authority

Job Description

PCN	08-X029, 08-X003
JOB TITLE	CIRCUIT RIDER TECHNICIAN
LOCATION	ANCHORAGE
RANGE	20
REPORTS TO	RURAL ASSISTANCE MGR 08-0231
FLSA EXEMPT	No
REVIEWED BY (NAME AND DATE)	ALAN FETTERS JAN 2021
APPROVED BY (NAME AND DATE)	TIM SANDSTROM JAN 2021
EFFECTIVE DATE	FEBRUARY 1, 2021

POSITION PURPOSE:

To provide technical assistance to operators and managers of energy infrastructure in rural Alaska.

ESSENTIAL FUNCTIONS:

- Works with and advises operators and managers on the routine maintenance and operations and minor repairs of their rural energy infrastructure. Types of facilities include: prime power diesel and alternative (hydro, wind photovoltaic) power generation; inside and outside power distribution; and bulk fuel storage facilities and pipelines.
- Advises managers and operators on inventory of spare parts and proper inventory ordering and control methods.
- Trains operators on proper methods of: meter installs and reading; general safety procedures; use of voltage and ampere meters; record keeping; and methods of reducing unscheduled downtime.
- Assists the project manager with the construction management of both maintenance/improvement and capital improvement projects on rural energy infrastructure.
- Tests and inspects energy infrastructure systems for compliance with project contract and with applicable local, state and federal regulatory requirements.
- Inspects and diagnoses existing equipment and systems to determine operational status and compliance with minimum safety standards and if they pose a threat to life, health and safety. Provides both verbal and written recommendations to local operators and AEA management.
- Assists with inspection, testing, commissioning, and construction management of both power and liquid fuel infrastructure.

- Creates detailed report of findings of discrepancies to be corrected to comply with contract and applicable codes and standards.
- Under the direction of the project manager inspects the construction and assembly of energy infrastructure including; fuel systems; diesel generators; cooling and heat recovery systems; control panels, outside electrical distribution, inside electrical switchgear, panels feeders and branch circuits; and fire suppression systems.
- Evaluates local labor and contractor work performance.
- Reads and interpret schematic drawings, logic ladders, diagrams, blueprints, specifications, work orders, proposals or reports to help diagnose equipment or provide recommendations.
- Assists with: preparation of material lists from drawings; order of magnitude construction cost estimating; preparation of bid packages; coordination of vendors on material availability and delivery; coordination consolidation and shipping of project material; coordination with air, truck, and/or barge lines for transport of material.
- Diagnoses diesel engine generator sets, inside electrical systems, and outside electrical systems problems in person or electronic/telephonically with utility personnel and provides recommendations on troubleshooting and repair to keep outages to a minimum.
- Assist with the develop of curriculum for the AVTEC operator training classes related with AEA's Circuit Rider and Itinerant Bulk Fuel Operator training programs. Recruits adult students for enrollment into the training programs. Provides administrative support related to the training programs.
- Provides technical operations and maintenance training to rural facility operators via electronic, telephonic, and in person.
- While the emphasis of this position is electrical power systems, this position also has responsibilities in other related systems of engines, generator control, programmable logic controllers, electronic power meters, bulk fuel storage and communication networking.
- Travels frequently to provide assistance to communities throughout Alaska, which requires traveling in small planes and staying overnight when needed.
- Other duties as assigned

PHYSICAL REQUIREMENTS AND POTENTIAL HAZARDS

While performing the duties of this job, the employee is frequently required to sit and stand for prolonged periods; use hands or fingers; handle or feel; talk and hear. The employee is occasionally required to reach with hands and arms. The employee often must lift and/or move up to 50 pounds. Specific vision abilities required by this job include close vision, discern color differences and the ability to adjust focus. With proper PPE the employee could be exposed to dust, chemicals, fumes, electrical voltage and heights.

TECHNOLOGY, EQUIPMENT, SYSTEMS, AND TOOLS

Requires skills in: the use of personal computer desktop and laptop running Microsoft Windows, tablet running iOS or Android; Microsoft Word processing; Excel spreadsheets,

Outlook email; configuring equipment network settings, document coping scanning and printing equipment; various hand and power tools; electrical voltage/ampere and resistance measuring equipment, underground utility locator, personal protection equipment. Prefer experience with RS Logix Studio 5000, Electro Industries Communicator EXT, Woodward Toolkit, Schweitzer Acselelator.

CRITICAL KNOWLEDGE, SKILLS, AND ABILITIES:

- National Electrical Code, National Electrical Safety Code, Ohm's Law, knowledge of principles, practices and current developments of diesel engines generator sets, State Procurement Code, Departmental and Agency policies.
- Diesel generation mechanics, operating different pieces of heavy equipment (front-end loaders, fork lift), electrical tools, conduit bending, carpentry skills, conductor installation and termination methods.
- Work and communicate well with rural crews, small local governments on remote projects without constant supervision.
- Ability to learn and adhere to safety practices and procedures.
- Ability and willingness to travel to remote Alaska communities in small planes and stay overnight up to several weeks.
- Ability to apply judgment and critical thinking, and decision-making skills to determine causes of operating errors and identify solutions.

MINIMUM QUALIFICATIONS:

High school diploma or equivalent and at least three years of applicable apprenticeship or mechanical/electrical and control education. State of Alaska Certificate of Fitness as a Journeyman with practical and theoretical experience with rural Alaska energy infrastructure is preferred. Industrial experience on electrical systems, controls and networking used in rural/remote Alaska power generation and distribution may be substituted for the educational requirements.