

SX^wNQEP^lELS L SU^wWEČM / KSUK^lIE^lMUMA^l 'A·K^lA^lMUKWA'ITS, Incorporated
d/b/a ENERGY KEEPERS, Inc.

Power Plant Maintenance Engineer

Position:	Power Plant Maintenance Engineer
Salary:	Negotiable depending on training, education, and experience
Location:	Energy Keepers, Inc. Corporate Headquarters, Polson, MT
Employment Status:	Full time position with full benefits to be offered at time of employment
Supervised By:	This position will report to the Energy Keepers, Inc. Plant Manager

GENERAL SUMMARY

Under the direction of the Plant Manager, the Power Plant Maintenance Engineer will provide hydropower facility maintenance management technical support in processes and will maintain all documentation to the maintenance management program.

Prepare essential reports and provides administrative and communication support services as directed to ensure effective maintenance informational flow.

Develop preventive maintenance schedules, compile and generate reports, provide CMMS coordination, and coordinate equipment and materials documentation, inspection, and inventory.

Provide long and short term planning and analysis of projects for maintenance, compliance and modernization of facilities and equipment and develops and recommends local technical, environmental, and safety policies and procedures for assigned programs based on EKI and Industry Standards.

Establish and maintain a collaborative working relationship with managers, regulators, and other stakeholders with a valid need to know of the maintenance management program information, in order to ensure that their needs are heard and addressed.

Identify and analyze problems; distinguish between relevant and irrelevant information to make logical decisions and develop solutions.

Communicate regularly and effectively with all levels and types of organizations and audiences. Develop and use partnerships to achieve collaborative solutions and resolve complex problems.

Use project management, conflict management, mediation, team building, and negotiation tools to achieve results in a collaborative spirit.

Analyze diverse viewpoints to make planning decisions and solve work problems.

PRIMARY DUTIES

- Provides technical and engineering leadership in monitoring and evaluating hydropower plant O&M data to confirm plant performance meets established standards, operating goals, permits, and contracts and to identify improvement opportunities.
- Identify appropriate Capital Improvements and coordinate with appropriate personnel to evaluate priorities.
- As appropriate, recommend the use of specialized consultants and, when approved, manage Operations-related and support contracts (with the exception of compliance consultants).
- Provides input to the Annual Budget process and execute the approved Budget.
- Manage the Technical “Lessons Learned” process.
- Ensure that the Plant Manager and appropriate Operations personnel are aware of industry “Best Practices”.
- Review and comment on all plant Incident Reports; analyze equipment failures, determine causes; recommend recovery plans; and develop cost-effective solutions to prevent reoccurrence.
- Manage the O&M “root-cause analysis” program.
- Provide guidance to Kerr/EKI staff in the selection of and operation of various monitoring and diagnostic equipment.
- Identify and prioritize plant monitoring and performance improvement opportunities or requirements.
- Provide recommendations on Reliability Centered Maintenance initiatives.
- Analyze data gathered from the Kerr Plant’s Predictive Maintenance Program in regards to vibration, oil, and infrared analysis.
- Coordinate all plant work; in-house and contracted work involving construction, architect-engineer services, operational services, and maintenance services for Kerr/EKI.
- Review and comment on design features during the planning and design phases of jobs/projects.
- Participate in the bidability and constructability review of plans and specifications prior to the contract phase.

- Prepare cost and time estimates for all stages of development of a project starting with the planning stage, through the engineering and design stage.
- Manages the transfer of all appropriate technical information and documentation; establish and manage the Kerr Project Technical Library.
- Identify and develop efficiencies for maintenance work wherever feasible assuring efficient and reliable operations, processes and equipment while protecting and prolonging the economic life of assets at optimal costs through:
 - Development of engineering solutions to repetitive failures and other maintenance problems;
 - Identification and correction of chronic, repetitive and costly equipment problems;
 - Technical advice to operations and maintenance management; and
 - Methods to reduce the need for maintenance and ultimately eliminate the occurrences of failures.
- Ensure system check-out, functional testing and adjustment of newly installed equipment, modified equipment, or recently maintained equipment.
- Provide technical assistance to Operations Supervisor in the selection of materials, equipment and spare parts replacement with original equipment, field repairs/fabrication, or replacement of entire part with commercial equipment.
- Prepare technical engineering reports and correspondence covering inspections, maintenance, tests, operations analysis, and work performed by maintenance forces on electrical/mechanical equipment to document work and equipment histories.
- Responsible for reviewing and evaluating asset Preventive Maintenance (PM) adequacy.
- Perform extensive computerized processing of administrative and technical data associated with the Computerized Maintenance Management System (CMMS); specific functions include:
 - A. Custodian of the CMMS.
 - Maintain an orderly flow of work orders, purchase orders and stock requisitions through CMMS.
 - Handle routine deviations from established procedures on his/her own and reporting exception deviations to the Plant Manager.
 - Review and control all data entry in order to assure quality inputs and thereby improve system creditability as a vital tool for the improvement of maintenance service to the Kerr plant:
 - Make data entries
 - Close jobs to Equipment History and proper Accounts as soon as completed
 - Resolve daily transaction problems
 - Save and back up current files on a daily basis

B. Maintain essential records and files:

- Set up and maintain Equipment Records for all equipment
- Post vital information to ensure accurate tracking of maintenance work in close cooperation with the entire Maintenance organization
- Maintain the PM Work Order control system and print those due for scheduling

C. Participate in budgetary preparation, tracking, and analysis:

- Provide requested data to the Plant Manager and CEO for periodic analysis of costs trends.
- Provide historical equipment cost information.
- Keep the Operations Supervisor, Operations Compliance Manager and Plant Manager properly informed of abnormal or critical situations and seek advice on matters outside the Power Plant Maintenance Engineer's knowledge or authority.

D. Responsible for assembling the inputs from Operations, Maintenance, Engineering, Operations Compliance Manager, Dam Safety Compliance Manager, and/or Plant Manager during the Weekly Scheduling Meeting and for issuing the Maintenance Schedule for approval and distribution.

E. With input from the Operations Supervisor, Engineering, Operations Compliance Manager, Dam Safety Compliance Manager, and/or Plant Manager is responsible for developing and integrating PM work into the maintenance work plans and schedules and for developing Job Plans for performing Maintenance work.

F. Responsible for maintaining the Outage / Forced Outage Work Report and being prepared to discuss the details of jobs that are significant.

- Responsible for coordinating the planning and scheduling.
- Reviews with the Operations Supervisor Work Orders and identifies work for which job packages need to be assembled. A report of these Work Orders is maintained in the CMMS and reviewed weekly identifying significant changes.
- Responsible for creating Standing Work Orders and for providing periodic reports to management and supervision.
- Performs other duties as assigned.

RESPONSIBILITIES OF POWER PLANT MAINTENANCE ENGINEER

This position operates from established and well-known procedures performing duties independently under general direction and minimum supervision. Decisions are made within prescribed operating procedures and guidelines. The position encounters recurring work situations of high complexity, with occasional variations from the norm. This position has partial project budgetary preparation and compliance accountability. Contacts are normally

made with others inside and outside EKI, with vendors, contractors, regulatory agencies, and the Community. Contacts are usually made on own initiative concerning matters requiring explanation, discussion, interpretation or approvals. Other responsibilities include:

- Application of technical skills and ingenuity to correct equipment problems causing equipment downtime and maintenance work.
- Dedication to the maintenance function and is focused on the elimination of repetitive failures.
- Ensuring the maintainability of new installations.
- Identifying and correcting chronic and costly equipment problems, eliminate repetitive failures.
- Providing technical advice to Management, Compliance Manager, Dam Safety Compliance Manager, Operations and Maintenance, and partners.
- Designing and monitoring an effective and economically justified preventive/predictive maintenance program.
- Proper operation and care of equipment.
- Assuring a comprehensive lubrication program is maintained.
- Inspection, adjustments, parts, replacements, overhauls, etc., for selected equipment.
- Vibration, Infra-Red, Oil Analyses and other predictive analyses.
- Maintaining and analyzing equipment data and history records to predict maintenance and/or capital needs.
- Providing detailed work/job plan instructions.
- Determining necessary parts, tools and equipment for planned jobs.
- Approving Job Plans for maintenance work and changing the status of the Job Plan from Draft to Approved.
- Establishing reasonable labor estimates on jobs.
- Coordinating equipment downtime with Operations.
- Publishing negotiated weekly maintenance schedule.
- Maintaining reliable data throughout the CMMS.
- Maintaining reliable and meaningful Equipment History.
- Keeping Up-to-Date Equipment Records and drawings.
- Assuring timely and accurate preparation and distribution of meaningful control reports.
- Establishing equipment numbering of all equipment.
- Developing PM Program for each piece of equipment.
- Reviewing Equipment History for trends and recommend improvements.
- Providing detailed job plan instructions of technically complex equipment.
- Ensuring accuracy of Equipment Bill of Materials.

SPECIFIC SKILLS and KNOWLEDGE

A demonstrated capability to evaluate technical performance, identifying potential improvements, and determining/applying “Best Practices” in operation and maintenance areas is preferred. A strong ability to communicate both orally and in writing is preferred.

Knowledge of word processing, spreadsheets, project management, CMMS, and performance monitoring software are required.

Requires seasoned knowledge and skills to prepare and review complex specifications and drawings for the installation or modification of diverse systems for a full range of features such as a powerhouse and spillways.

Knowledge of national electrical and fire codes is preferred.

Knowledge of contract administration and quality assurance methods is preferred.

Possess a wide range of technical competence including the ability to understand and troubleshoot powerplant and unit control diagrams, schematics, and wiring diagrams is preferred.

Must possess an in-depth understanding of other engineering disciplines (Mechanical, Electrical, Civil, structural, hydraulic, etc.), and a working familiarity with related fields such as:

- Natural resources;
- Safety (OSHA);
- Hazardous materials;
- Environmental;
- WECC/NERC Compliance, etc.

EDUCATION and EXPERIENCE

Bachelor of Science Degree in an Engineering or Science discipline with three years experience in power plants is required. Experience with CMMS, project management, troubleshooting complex problems, powerplant operations and maintenance and/or performance evaluation experience is required. Engineering expertise and experience in electrical and/or control systems is strongly preferred. Registration as a Professional Engineer in Montana is preferred. Demonstrable experience in the analysis of and correction of problems in power plant equipment, plant maintenance and plant operations are required.

WORKING CONDITIONS

Physical requirements include:

- Possibility of working on feet for extensive periods;
- Requiring stair and ladder climbing; and
- Routinely lifting 50 pounds.

Protective equipment must be worn in the performance of some duties (e.g. hard hats, safety glasses, air masks, ear protection, chemical suits, hot gloves, high voltage protective equipment, etc.). Work with hazardous materials may be required.

Normal working hours are 8:00 a.m. to 4:30 p.m. Monday through Friday. Work is performed both at EKI Offices and at the Kerr Power Plant and Dam requiring protective clothing and equipment. Extended hours may be required based on specific requirements.

All employees will participate in the Fitness for Duty Program and are subject to background checks for security clearance and credit checks for positions with fiscal responsibility. This program includes pre/post-employment physical examinations and drug screening. *Energy Keepers, Incorporated, is an Indian Preference Employer. Energy Keepers, Incorporated is a federally chartered corporation, wholly-owned by the Confederated Salish and Kootenai Tribes, that operates and maintains hydropower facilities and sells the electricity generated thereby.*

The statements contained in this job description are not all-inclusive; additional duties may be assigned and requirements may vary from time to time.