

City and Borough Sitka, Alaska

Class Specification

Class Title	Power Plant Operator
Class Code Number	4100
FLSA Designation	Non-Exempt
Pay Grade and Range	IBEW
Effective Date	September 2010

General Statement of Duties

Operates, dispatches and monitors power plant generation equipment; performs related work as required.

Distinguishing Features of the Class

The principal function of an employee in this class is to operate and monitor hydroelectric and diesel generation equipment providing reliable power to the consumer. The employee also monitors transmission and distribution of the generated power throughout Sitka's electrical system. The employee dispatches and performs switching procedures for the entire electrical system to insure safe and coordinated operation of the system. The work is performed under the direct supervision of the Senior Power Plant Operator but considerable leeway is granted for the exercise of independent judgment and initiative. An employee in this class performs the duties of other employees in the Electric Department as required or as assigned by supervisory personnel. In the absence of the Senior Power Plant Operator, an employee in this class may temporarily assume full responsibility for duties of the Senior Power Plant Operator. The nature of the work performed requires that an employee in this class establish and maintain effective working relationships with other Department and City employees, contractors and the public. The principal duties of this class are performed in a hydro electric plant environment however work may be required in an outdoor environment which may involve adverse weather conditions and related hazards in which the employee is subject to potential personal danger.

Examples of Essential Work (Illustrative Only)

- Monitors, operates and controls water turbines and associated support equipment, hydraulic pumps, water valves and pumps, switches and relays;
- Monitors and operates onsite hydrogeneration equipment;
- Monitors and operates remote facilities via SCADA. Facilities include: hydrogeneration plants, distribution substations, switch yards and transmission systems;
- Monitors and operates all substations and switch yards within the Sitka electrical system;
- Operates and monitors SCADA control system;
- Records equipment readings and plant data on a routine basis;
- Enters readings and plant data into computer spreadsheets;

- Records in the log all major events and all maintenance that was performed on the generating system during their shift;
- Dispatches switching procedures for Sitka's electrical system for all operations, maintenance, power outages or emergencies;
- Receives outage calls and calls in necessary personnel during power outages and emergencies;
- Responds to citizens' questions and comments in a courteous and timely manner, referring calls as appropriate;
- Monitors mechanical operation of generation equipment and notifies mechanic of potential problems;
- Assists in the performance of preventative, routine and emergency maintenance;
- Operates diesel generation engines and associated support equipment, fuel and water valves, pumps, switches and relays as required;
- Operates powerhouse, substation and switch yard, switches and breakers either on site or remote as required by switching procedures;
- Performs buildings and grounds maintenance as required;
- Operates manual and power operated light and heavy equipment such as ladders, creepers and cranes, steam cleaners, weed whackers and sprayers;
- Performs ACAD work updating or generating drawings as requested and assigned;
- Performs cleaning and painting of equipment in the Blue Lake powerhouse;
- Performs monthly checks of all safety and fire equipment;
- Provides needed information and demonstrations concerning how to perform certain work tasks to new employees in the same or similar class of positions;
- Keeps immediate supervisor and designated others fully and accurately informed concerning work progress, including present and potential work problems and suggestions for new or improved ways of addressing such problems;
- Attends meetings, conferences, workshops and training sessions and reviews publications and audio-visual materials to become and remain current on the principles, practices and new developments in assigned work areas;
- Performs other related duties as assigned.

Required Knowledge, Skills and Abilities

- Thorough knowledge of the principles and practices of electrical and mechanical equipment operation;
- Thorough knowledge of the occupational hazards of working with high and low voltage electrical equipment and necessary safety precautions;
- Thorough knowledge of the overall electrical system and its operations;
- Thorough knowledge of the switching procedures to restore power;
- Good knowledge of the operation, uses, materials, methods and equipment used in the operation and maintenance of hydroelectric generation;
- Good knowledge of computer spread sheet and word processing, database applications currently in use in the department;
- Skill in the operation of electrical and mechanical equipment;
- Ability to hear and analyze the proper mechanical and electrical functioning of equipment;
- Ability to accurately read and record system data;
- Ability to perform maintenance and repair of electrical and mechanical equipment;
- Ability to operate manual and motorized heavy equipment;
- Ability to communicate well with others, both orally and in writing, using both technical and non-technical language;
- Ability to understand and follow oral and/or written policies, procedures and instructions;
- Ability to prepare and present accurate and reliable reports containing findings and recommendations;
- Ability to use logical and creative thought processes to develop solutions according to written specifications and/or oral instructions;
- Ability to perform a wide variety of duties and responsibilities with accuracy and speed under the pressure of time-sensitive deadlines;

- Ability and willingness to quickly learn and put to use new skills and knowledge brought about by rapidly changing information and/or technology;
- Ability to dispatch switching procedures in a clear, concise and safe manner via radio or other designated method;
- Integrity, ingenuity and inventiveness in the performance of assigned tasks.

Acceptable Experience and Training

- Graduation from high school or possession of a GED; and
- Some experience in electrical, hydro and diesel power generation; or
- Any equivalent combination of experience, education and training which provides the knowledge, skills and abilities necessary to perform the work.

Required Special Qualifications

- Possession of a driver’s license issued by the State of Alaska;
- Ability to obtain first aid and CPR certification.

Essential Physical Abilities

- Sufficient clarity of speech and hearing or other communication capabilities, with or without reasonable accommodation, which permits the employee to hear specific equipment functioning in a noisy environment and to communicate well with other employees, contractors and the general public;
- Sufficient vision or other powers of observation, with or without correction, which permits the employee to produce a variety of reports and related materials and to observe small dials, and numeric displays;
- Sufficient manual dexterity with or without reasonable accommodation, which permits the employee to operate a keyboard and produce hand-written materials and notations;
- Sufficient personal mobility and physical reflexes, with or without reasonable accommodation, which permits the employee to observe and inspect mechanical equipment in tight spaces and to perform work at remote locations.

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