ELECTRICAL ENGINEER, POWER SYSTEM

Code No: 4-18-260

COMPETITIVE

DISTINGUISHING FEATURES OF THE CLASS: This is a professional engineering position responsible for the design and planning of operations concerned with the generation, transmission and distribution of electrical energy in the electric department of the Fairport Municipal Commission. Work is performed under the general supervision of the General Manager of Operations. Assignments are received in the form of problems resulting from discussion and work is reviewed by consultation and inspection of completed work. Direct supervision may be exercised over a crew of engineering personnel. Does related work as required.

TYPICAL WORK ACTIVITIES:

Evaluates existing electrical system load data and makes recommendations for capital improvements within the system;

Investigates alternate forms and/or sources of bulk power supply;

Conducts studies and analyzes alternatives and improvements for providing for future load growth;

Supervises and participates in the preparation of plans and specifications for purchase of equipment for construction to provide for future load growth;

Plans and prepares estimates for construction of pole and duct lines, subdivisions, distribution, substations and sheet lighting projects;

Supervises and participates in work involved in planning, designing and constructing of new transmission lines, including determination of sizes of wire, transformer capacities and ratings of electrical protective devices;

Confers with private and public utilities and the New York PowerAuthority in matters related to the engineering of facilities which may be required as the result of temporary or permanent inter-connects;

Supervises and participates in the maintenance and repair of electrical distribution lines, services and signal systems;

Meets with customers and/or their consultants or contractors regarding new service installation for subdivision, industry and commercial establishments;

Prepares scope of work, participates in interviews of consultants, and reviews work in progress;

Prepares reports of activities as requested by Manager;

May supervise work of engineering crew.

FULL PERFORMANCE KNOWLEDGES, SKILLS, ABILITIES AND PERSONAL CHARACTERISTICS: Thorough knowledge of electrical engineering procedures and practices involved in the design, operation and maintenance of electrical transmission and distribution systems; thorough knowledge of the care, use and adjustment of electrical testing and measuring instruments and equipment; good knowledge of mathematics and formulae as they relate to electrical generation and distribution systems; good knowledge of the properties of materials, elements of engineering research and engineering economics as they relate to electrical generation and distribution systems; good knowledge of the methods of electrical controls for large capacity power transmission equipment; ability to prepare specifications and plans; ability to assess efficiency of plant operation and make recommendations for improvements and maintenance; ability to plan and prepare estimates for construction of pole and duct lines, transmission lines, distribution lines and other projects involved in the generation, transmission and distribution of electrical energy; ability to develop and maintain effective working relationships; ability to maintain records; ability to express oneself well both orally and in writing; good judgment; innovativeness, initiative and resourcefulness; health commensurate with the demands of the position.

MINUMUM QUALIFICATIONS: Graduation from a regionally accredited or New York State recognized college or university with a Bachelor's degree in Electrical Engineering; plus EITHER:

A) Four (4) years full-time paid or its part-time equivalent experience as a design engineer in the rebuilding and updating of new and existing parts of an electrical power system; OR,

B) Possession of a Master's degree in Electrical Engineering plus two (2) years of experience as defined in A) above; OR,

C) Any equivalent combination of training and experience as defined by the limits of A) and B) above.

ADOPTED: August 30, 1984