INSTRUMENT AND EFFICIENCY ENGINEER SERIES

Code No.	Class Title	Occ. Area	Work Area	Prob. Period	Effective Date	Last Action
1368	Asst. Instrument and Efficiency Engineer	02	041	6 mo.	04/15/09	Rev.
1367	Instrument and Efficiency Engineer	01	041	6 mo.	04/15/09	Rev.

Promotional Line: 75

Series Narrative

Employees in this series perform duties related to the efficient operation of power plant equipment. They work under supervision from a designated supervisor.

DESCRIPTIONS OF LEVELS OF WORK

Level I: Assistant Instrument and Efficiency Engineer 1368

Employees at this level perform duties related to the efficient operation of power plant equipment. They work under supervision from a designated supervisor.

An Assistant Instrument and Efficiency Engineer typically –

1. collects and tabulates daily power plant reports
2. takes and compiles meter readings of steam, gas, and electrical consumption of such buildings
3. computes and records the steam, gas and electrical consumption of such buildings
4. prepares graphs and charts of operating data
5. assists the Instrument and Efficiency Engineer in Efficiency tests for power plant equipment (such as boilers, turbines, pumps, and dust collector system)
6. does coal sampling, including preparations and tests
7. makes coal storage temperature tests and records
8. performs other related duties as assigned

Level II: Instrument and Efficiency Engineer 1367

Employees at this level are responsible for the efficient operation of all power plant equipment and assist in the operation and maintenance of a power plant. They work under administrative direction from a designated supervisor.

An Instrument and Efficiency Engineer typically –

1. provides for and supervises the testing of boilers, turbines, pumps, fans, dust collectors, and fuel efficiency
2. evaluates test results and reports and recommends needed repairs to bring equipment up to peak efficiency

3. supervises and directs all personnel in the efficiency of operation and maintenance of power plant equipment in the absence of the Power Plant Mechanical Engineer

4. works with staff and consulting engineers in the development of plans and specifications for the selection of new equipment and/or the alteration or expansion of existing facilities

5. assists in establishing standards of operation, preventive maintenance programs, and the instruction and training of personnel in order to maintain these standards

6. supervises the maintenance of appropriate power plant instruments

7. exercises supervision over subordinates as necessary

8. performs other related duties as assigned

MINIMUM ACCEPTABLE QUALIFICATIONS REQUIRED FOR ENTRY INTO:

Level I: Assistant Instrument and Efficiency Engineer 1368

CREDENTIALS TO BE VERIFIED BY PLACEMENT OFFICER

1. High school graduation or equivalent

2. **Two years (24 months)** of experience in testing and efficiency work in a utility plant environment having equipment such as industrial boilers, chillers, and electrical generating units. Specialized education in combustion engineering may be substituted for up to one year of experience in testing and efficiency work.

PERSONAL ATTRIBUTES NEEDED TO UNDERTAKE JOB

1. general knowledge of power plant instruments

2. general knowledge of methods and procedures to make combustion and efficiency calculations

Level II: Instrument and Efficiency Engineer 1367

CREDENTIALS TO BE VERIFIED BY PLACEMENT OFFICER

1. Bachelor's degree in mechanical or electrical engineering

2. **Two years 24 months** of experience comparable to that performed at the Assistant Instrument and Efficiency Engineer level in testing and efficiency work in a utility plant environment having equipment such as industrial boilers, chillers,and electrical generating units. Specialized education in combustion engineering may be substituted for up to one year of experience in testing and efficiency work.**

**Note: A Master's Degree in mechanical or electrical engineering or closely related field, meets the requirements of this Minimum Acceptable Qualification.

PERSONAL ATTRIBUTES NEEDED TO UNDERTAKE JOB

1. general knowledge of power-plant and building-equipment instruments and controls
2. general knowledge of power-plant and building-equipment design, operation, and maintenance
3. ability to make calculations related to mechanical equipment
4. supervisory ability