



STATE OF NEVADA
Department of Administration
Division of Human Resource Management

CLASS SPECIFICATION

<u>TITLE</u>	<u>GRADE</u>	<u>EEO-4</u>	<u>CODE</u>
CHIEF ENGINEER, PLANT OPERATIONS	44*	A	6.106

Under general direction, incumbents perform professional engineering work involved in maintaining and operating large and complex statewide facilities in a major department such as Administration or Corrections. Duties require licensure as a Professional Engineer by the Nevada State Board of Professional Engineers and Land Surveyors, and typically include construction project management; design development; negotiation, modification and review of contracts, agreements, engineering plans, specifications and schedules; and management of skilled maintenance staff.

Perform professional engineering functions that require analysis and the application of advanced principles and abstract concepts; the development of unique solutions to difficult problems that impact the administration and management of major, broad organizational services and long and short range goals; and extensive communication with executives, officials and regulatory representatives for the purpose of negotiating solutions to major issues involving the influence of policy and procedure changes.

Plan, organize, schedule and oversee plant maintenance and operation activities by providing professional engineering expertise to the department; write, review, negotiate and secure agreements with consultants and contractors and coordinate their activities; compile and present complex professional engineering information to management; prepare reports, letters, memos, agreements, forms and notes to communicate information to others.

Ensure preventive and corrective maintenance is performed in a timely manner; perform facility inspections; advise on technical problems; locate necessary funding; inspect work of outside contractors; and establish maintenance schedules.

Train, supervise and evaluate the performance of subordinate staff; determine and implement training requirements; forecast staffing needs; ensure work is completed in accordance with standards of quality, applicable building codes, and budget limitations.

Assist in budget development by recommending maintenance and operational needs and other pertinent cost factors to include equipment replacement, impending regulatory upgrades, safety equipment, and maintenance repair and construction work.

Perform related duties as assigned.

Examples of Chief Engineer, Plant Operations positions include:

In the Department of Administration, provide professional engineering services in the review of project plans for compliance with applicable codes; write specifications for project plans within acceptable standards; review plans and specifications to ensure correctness of documents; seal, sign, and date completed plans; advise inspectors of acceptable installation methods; and approve payments to contractors.

* **Reflects a 2-grade, special salary adjustment authorized by the 2001 Legislature to improve recruitment and retention.**

Examples of Chief Engineer, Plant Operations positions include: (cont'd)

Manage energy consumption and utility costs by tracking statewide utility accounts of buildings and sites within the department; recommend capital improvement projects or in-house projects to reduce energy use and costs; and establish department standards for new construction projects for Public Works Board and in-house designs to increase efficiency and improve quality of construction.

Oversee all department water rights to ensure water right permits and certificates are in good standing; prepare improvement designs for system control and management; retrieve data from pumping operations to ensure accurate billing of services; and survey dam sites, roads and pipelines for new and existing facility improvement.

In the Department of Corrections, oversee the maintenance, health, safety, fire and environmental program for the department to ensure all facilities are in compliance with department, federal and State regulations; conduct in-house inspections; prepare and schedule outside regulatory agency inspections; provide training to department employees; take corrective measures when deficiencies exist; and work with regulatory personnel to improve these programs within the department.

Manage capital improvement and department funded projects to include construction, equipment replacement and remodeling of all correctional facilities; serve as part of a consultant's design team for budgeting, scheduling and designing capital improvement projects; recommend capital improvement candidate projects; oversee construction projects; and perform final inspection of project to ensure project is complete prior to contractor release.

MINIMUM QUALIFICATIONS

INFORMATIONAL NOTE:

- * Any person licensed as a Professional Engineer in another state must become licensed by Nevada within six months following the date of appointment as a condition of continued employment.

EDUCATION AND EXPERIENCE: Licensure as a Professional Engineer and two years of licensed P.E. experience in a supervisory or responsible project charge capacity in the operation and maintenance of a large physical plant. *(See Informational Note)*

ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES (required at time of application):

Detailed knowledge of: engineering principles and practices including the practical application of calculus, algebra, geometry, fractions, percentages, ratios and proportions, scientific notation and statistics; preparation and review of engineering project plans, specifications and drafting methods including nomenclature, symbols, and sources of information. **Working knowledge of:** currently adopted plumbing, mechanical, and fire codes; State statutes, federal regulations, and local ordinances regarding buildings or systems, and life safety, energy, materials, equipment and installation standards; cost estimating methods of plumbing, heating, air conditioning and refrigeration systems; economic analysis for projecting the useful life of various systems and determining the least cost and/or energy consumption; mechanical systems including power, water, gas requirements, with associated weights and sizes to approximate mechanical system impact on a new construction project. **Ability to:** apply the principles of engineering; work independently and follow through on assignments with minimal direction; supervise operations including organizing workflow to accomplish established objectives, communicate clearly, negotiate, exchange ideas, information and opinions with others to formulate policies and programs and/or arrive jointly at decision, conclusions or solutions; delegate responsibility and promote the professional development of staff; analyze complex technical data using logic and quantitative reasoning; write technical details and cost estimates of a project to enable project managers to bid on a project and recommend funding; analyze systems and operating hours and determine how these factors affect the cost to operate the buildings; write technical specifications to complement plans in compliance with applicable codes; stay current with technical advances and apply technical procedures; set priorities which accurately reflect the relative

MINIMUM QUALIFICATIONS (cont'd)

ENTRY LEVEL KNOWLEDGE, SKILLS AND ABILITIES (required at time of application): (cont'd)
importance of job responsibilities; prioritize and make assignments to complete work in a timely manner when there are changes in priorities, overlapping deadlines, competing requirements and a heavy workload.

FULL PERFORMANCE KNOWLEDGE, SKILLS AND ABILITIES (typically acquired on the job):

Detailed knowledge of: maintenance and safety procedures to implement more efficient operating procedures; design of existing systems; cost estimating of heating, ventilation, air conditioning, plumbing and electrical systems for new or existing buildings; Public Works Board's Capital Improvement Projects' process and legislative process to fund projects. **Working knowledge of:** buildings under the jurisdiction of the department to include operating schedules, personnel, and the mechanical and electrical equipment within those facilities; costs associated with the operation, maintenance, insurance, labor, and equipment required for various systems; costs estimating of heating, ventilation, air conditioning and electrical systems for new or existing buildings; computer controlled heating, ventilation and air conditioning systems to make determinations of alarms, trends, set points, operating hours and demand limits.

This class specification is used for classification, recruitment, and examination purposes. It is not to be considered a substitute for work performance standards for positions assigned to this class.

6.106

ESTABLISHED: 11/25/80R
6/1/85PAC
REVISED: 7/1/89R
9/22/89PC
REVISED: 7/1/91P
11/29/90PC
REVISED: 7/1/93P
8/31/92PC
REVISED: 9/1/94UC
REVISED: 6/29/95UC
REVISED: 7/1/01LG
REVISED: 10/1/04PC