

PETITION

The Guam Waterworks Authority hereby petitions the Consolidated Commission on Utilities (CCU) the following:

CREATION OF POSITION:

Engineer Intern

AMENDMENTS OF POSITION:

Junior Engineer

Associate Engineer

Senior Engineer

Project Engineer, P.E.

Engineer Supervisor, P.E.

Assistant Chief Engineer, P.E.

Assistant General Manager, P.E – Engineer (AGME) -Unclassified)

This petition complies with Public Law 34-131, §6303(e) and (2C) as added and 4 GCA, Chapter 6, §6303 (d) (added by Public Law 28-112) The petition is also required by 4 GCA, §6205 and §6303 as public documents for the purposes of 5 GCA, Chapter 10, Art. 1 (Sunshine Law). In addition, Public Law 28-1259 to add the positions to the Certified, Technical, and Professional (CTP) List.

For more information, please visit the Guam Waterworks Authority website at <http://www.guamwaterworks.org/careers/petition>. You may also contact GWA's Human Resources Office at 671-648-3037 or 671-300-6073.


MIGUEL C. BORDALLO, P.E.
General Manager

I. REQUEST

The Guam Waterworks Authority (GWA) petitions the Consolidated Commission on Utilities (CUU) to create the following position in the “Unclassified” status in accordance with Public Law 28-112:

➤ **Engineer Intern**

GWA further petitions Consolidated Commission on Utilities (CUU) to amend the Engineering series in accordance with Public Law 34-131, §6303(e) and (2C) as added and 4 GCA, Chapter 6, §6303 (d) (added by Public Law 28-112) as follows:

- **Junior Engineer**
- **Associate Engineer**
- **Senior Engineer**
- **Project Engineer, P.E.**
- **Engineer Supervisor, P.E.**
- **Assistant Chief Engineer, P.E.**
- **Assistant General Manager, P.E. – Engineering (AGME)**

II. AUTHORITY

Public Law 28-159, Section 3(c) Amendment of Certified, Technical and Professional Positions. The following information is provided pursuant to 4 GCA, §6303 (d) Creation of positions in the Autonomous Agencies and Public Corporations:

- (1) The petition of any agency, department, or public corporation listed in 4 GCA, §4105(d) of this Title to create a position shall include:

A. *The justification for the new position and the amendment of the Engineering Series:*

The Consolidated Commission on Utilities (CUU) on May 22, 2007, approved Resolution No.: 16-FY2007 creating the following:

- Chief Engineer
- Assistant Chief Engineer
- Senior Engineering Supervisor
- Senior Engineer
- Associate Engineer
- Junior Engineer

The purpose of the creation of the Engineering series for GWA management was to ensure the efficient performance of duties and responsibilities within the Engineering Division of the Authority and for GWA to meet its mandates under both local and federal guidelines.

In addition, the CCU Board approved Resolution No.: 23-FY2010 on July 27, 2010, amending the Engineering series for a second time reflecting the following positions:

- Chief Engineer, PE
- Assistant Chief Engineer, PE
- Senior Engineer Supervisor, PE
- Senior Engineer, PE
- Associate Engineer
- Junior Engineer

Upon review of the CCU Board Resolution No.: 23-FY2010, it was discovered that the Senior Engineer, PE classification specification aka “class spec” was not officially created; although it was identified on the resolution. By not having an “official” class spec for the Senior Engineer, PE, we are potentially exposing GWA to being audited by the Civil Service Commission (CSC) and the end result of such an audit may be a “Null and Void” action for any recruitments made for this position.

In general, the class spec outlines the basic duties and responsibilities performed in a given position and is a tool in the recruitment process verifying if a candidate has met the minimum experience and training requirements, pursuant to 4 GCA, Chapter 4 (Merit Process). In addition, the class spec is a guide to developing the position description questionnaire (PDQ), which provides the supervisor and manager a key tool in the development and evaluation of employee performance.

Without the class spec, it becomes difficult for an employee to know the minimum qualifications of the position and the illustrative examples of work for the position. How would an employee know what is expected of them and for a supervisor and/or manager to provide an accurate and effective performance evaluation?

The class spec provides a reference against which a supervisor can determine areas in which an employee’s skills need upgrading. Employee development is an organization’s focus for ensuring that employees that perform can be prepared for promotion into higher-level positions. Without an accurate and updated class spec, it may be challenging to know how to train and develop employees.

Similarly, career development through the merit process encourages employees to gain new skills to enhance their careers and advance within the organization. Again, without a class specification, employees do not have a clear target to shoot for in training and development.

As a result of the lack of a class spec for the Senior Engineer, PE and how that position would fit in within the existing series of positions, a classification analysis of the entire series was conducted [by HR personnel??] in collaboration with the existing senior engineer supervisors to better understand the levels of engineering work required and their interrelation from a workflow and professional development perspective based on the Division's current functional and operational responsibilities within the organization. During this process, HR thoroughly researched and analyzed all the positions within the series, and determined the minimum experience requirements was not consistent as the series progressed from lower to higher levels of responsibility, nor did the existing class specs incorporate the complexities of the responsibilities, duties, skills, knowledge, and abilities related to the positions at each level of the engineering series.

Therefore, the purpose of amending the engineering series is to resolve these issues and properly align the series with the needs and existing functions of the Engineering Division. More importantly, it has been over ten years since the last review and it would be appropriate to ensure the classification specifications are consistent with the current state of the industry, especially if we are to recruit, retain and be competitive with the market for Engineers.

In order to enhance recruitment potential for the Engineering Division and create a more effective career path for local talent, it would be practical to create the Engineer Intern position, which would allow current engineering students from the University of Guam fledgling School of Engineering to be hired under the Engineer Intern position. This would also allow such hires to gain practical engineering experience and to get "hands-on" training in utility systems engineering and operations.

Engineering positions are "hard to fill" and an Engineer Intern position would provide a powerful recruitment opportunity for engineering students to increase the pool of potential candidates for permanent engineering positions upon their completion of coursework, especially for those enrolled at UOG's school of engineering. The risk of taking on an intern is minimal, as GWA will only commit to working with interns during summer/winter breaks, while the benefits are significant with an increased pool of future recruitment candidates and a positive contribution to expansion of UOG's Engineering program.

B. *The essential details concerning the creation of the position:*

Refer to the classification review in Section III below.

C. *An analysis of similarities and differences between positions to be created and positions listed pursuant to 4 GCA, §4101.1(d):*

While engineering positions currently exist within the government of Guam, these existing positions have not been updated since 1986. More importantly, the engineering positions created by GWA under Resolution No.: 16-FY2007 were created specifically for GWA to update the minimum qualifications and illustrative examples of the positions in water and wastewater systems, which is necessary to the strategic goals for GWA. Therefore, although there are similar positions within the Government of Guam, these specific positions and amendments are necessary and appropriate.

D. *The position description:*

See attached.

E. *The proposed pay ranges and demonstration of compliance with 4 GCA, §6301 of this Title:*

Proposed pay ranges have been determined in accordance with GWA's compensation plan as authorized by Public Law 28-159 and approved by the CCU in October 2007. The proposed compensation is in accordance with the Strategic Pay Plan Methodology.

F. *A fiscal note as the term as described in 2 GCA, §9101 et seq.; and any other pertinent information.*

The GWA is responsible for the funding availability for the above-referenced positions and is in compliance with all applicable laws, rules, and regulations regarding the creation, filling, and retention of positions in certified, technical, and professional positions. The funding of this position has no financial impact on the Government of Guam's General Fund.

- (2) The petition shall be posted on the agency, department, or public corporation's website for ten (10) days (Saturdays, Sundays, and government of Guam holidays excepted). After the posting, the head of the Authority shall forward the petition along with evidence of his compliance with 4 GCA, Chapter 6, §6303.1(a), to the governing board or commission who, if they approve the same shall approve the petition by resolution and file the petition and resolution for records with the Director of Administration and the Legislative Secretary.
- (3) No new position may be filled until after compliance with the provision of this Section and thirty (30) days have elapsed from the date of filing with the Legislative Secretary.

III. METHODOLOGY

Information was gathered from various public utilities associated with the American Waterworks Association (AWWA) and other water utilities with comparable positions within the United States. The information collected was used to analyze and develop the proposed job standards as they apply to the work performed for GWA's Engineering Division. The staff collaboratively reviewed the duties

associated with the proposed creations and amended positions as indicated in the position descriptions. In evaluating these positions, the Strategic Pay Job Evaluation Methodology was utilized to determine the job evaluation points based on a total of twelve (12) measurement factors: Education, Experience, Complexity, Scope of Work, Problem Solving, Freedom to Act/Supervision Received, Work Environment, Physical Demands, Impact of Discretionary Decisions, Human Relations Skills/Contact, Authority Exercised, and Supervisor/Managerial Responsibility.

Based on the compensation consulting firm of Alan Searle & Associates market research and GWA's compensation models per respective industry, implementation ranges resulted as follows:

Benchmark Position	20 th Market Percentile (2017 Market Data – 5 Sub-Steps)										
	Structural Adjustment- MIN						Structural Adjustment- MIN				
	JE Points	Base Salary	Hourly	Grade	Step	Sub-Step	Base Salary	Hourly	Grade	Step	Sub-Step
Engineer Intern	578	\$46,933.00	\$22.56	J	4	B	\$48,839.00	\$23.48	J	5	B
Junior Engineer	687	\$51,843.43	\$24.92	J	6	D	\$53,948.48	\$25.94	J	7	D
Associate Engineer	809	\$63,991.43	\$30.77	K	7	B	\$66,589.74	\$32.01	K	8	B
Senior Engineer	931	\$78,516.05	\$37.75	M	4	C	\$81,704.12	\$39.28	M	5	C
Project Engineer, P.E.	1024	\$93,002.91	\$44.71	O	3	D	\$96,779.20	\$46.53	O	4	D
Engineer Supervisor, P.E.	1173	\$110,051.83	\$52.91	P	4	B	\$114,520.38	\$55.06	P	5	B
Assistant Chief Engineer, P.E.	1217	\$119,633.05	\$57.52	Q	3	C	\$124,490.63	\$59.85	Q	4	C
Assistant General Manager - Engineering (AGME)	1514	\$144,771.90	\$69.60	R	5	A	150,650.22	\$72.43	R	6	A

IV. RECOMMENDATION

1. To approve the creation of the Engineer Intern in the unclassified service and add the position to the Certified, Technical, and Professional (CTP) list of positions.
2. To approve the amendments of the Junior Engineer, Associate Engineer, Senior Engineer, Project Engineer, P.E., Engineer Supervisor, P.E., Assistant Chief Engineer, P.E., and the Assistant General Manager, P.E. – Engineering (AGME) and to update these positions to the Certified, Technical, and Professional (CTP) list of positions.
3. The CCU to authorize GWA, General Manager to remove the duplicated and/or obsolete Engineering positions from its CTP list of positions, as deemed necessary.

GUAM WATERWORKS AUTHORITY

ATURIDÁT KINALAMTEN HÂNOM GUÂHAN

PERSONNEL SERVICES DIVISION

Gloria B. Nelson Public Service Building | 688 Route 15 Mangilao, Guam 96913

P.O. Box 3010 Hagåtña, Guam 96932

Tel. No. (671) 300-6073-6 Fax No. (671) 300-6896

4. Upon approval of creation, GWA shall conduct timely reclassification audits on current employees. Determination of audit findings shall not adversely affect impact incumbent employee's salary.



Michael W. Schniep
Personnel Specialist IV



Zina Pangelinan-Charfauros
Personnel Services Administrator



Miguel C. Bordallo, P.E.
General Manager



GUAM WATERWORKS AUTHORITY

ENGINEER INTERN

NATURE OF WORK IN THE CLASS:

Under direct supervision, Interns in this class perform technical and administration, including fieldwork in support of the Engineering Division of the Guam Waterworks Authority (GWA). As an intern, candidates will participate in the planning, design, and construction observation of civil planning of water distribution systems, wastewater pump stations, water and wastewater treatment facilities, Management Operations and Maintenance studies, and other significant water-wastewater and infrastructure projects.

ILLUSTRATIVE EXAMPLES OF WORK:

(Classification specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are not intended to reflect all duties performed within the position, as illustrated in the position description questionnaire).

- Assist engineers with the evaluation, study and design of water and wastewater treatment plants, potable water distribution systems, and wastewater collection and distribution systems.
- Assist with basic hydraulic and modeling analyses for water and wastewater systems.
- Assist in Fieldwork, studies and design of water and wastewater system construction and rehabilitation.
- Assist with on-site construction management through site inspection, quantity computation, and contractor communication.
- Assist in the preparation of site design drawings and specifications.
- Assist in the preparation of permits for construction and environmental signoff.
- Assist with construction administration and observation services.
- Assist in the preparation of design drawings, plans, sections, details, and profiles/sections computer aided design.
- Assist in the preparation of engineering-related calculation drawings and visual aids.

KNOWLEDGE, ABILITIES, AND SKILLS:

- Knowledge of basic engineering practices and principles.
- Knowledge of basic surveying, drafting, computer-aided design techniques and technology; current developments and literature, and sources of information regarding civil engineering.

ENGINEER INTERN

- Knowledge of computer software applications including word processing, spreadsheets, graphics, and databases.
- Knowledge of English usage, spelling, punctuation, and grammar; modern office procedures, methods.
- Knowledge of computer equipment; principles and practices of work safety.
- Ability to use and care for engineering and surveying instruments and computer equipment.
- Ability to learn and understand GWA regulations and engineering policies and procedures.
- Ability to use a computer, calculator, telephone, and photocopy machine.
- Ability to communicate clearly and concisely, both orally and in writing.

MINIMUM EXPERIENCE, EDUCATION, AND TRAINING:

- A. Candidates must be pursuing a Bachelor's Degree in Engineering and must have completed their sophomore year of a bachelor's degree from an accredited college or university; **or**
- B. Candidate currently enrolled in a Master's Degree in Engineering.

LICENSES, CERTIFICATES, AND SPECIAL REQUIREMENTS:

May require possession of a valid Driver's license.

ESTABLISHED: JANUARY 2023

JE POINTS: 572

FLSA STATUS: NON-EXEMPT

**JOSEPH T. DUENAS, Chairman
Consolidated Commission on Utilities**



GUAM WATERWORKS AUTHORITY

JUNIOR ENGINEER

NATURE OF WORK IN THE CLASS:

This is the entry-level position in the professional Engineering series. Under direct supervision, employees in the class perform less complex office and field engineering work as assignments are generally limited in scope and performed within a procedural framework established by the Engineering Supervisor.

ILLUSTRATIVE EXAMPLES OF WORK:

(Classification specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are not intended to reflect all duties performed within the position, as illustrated in the position description questionnaire).

- Prepares specifications and contract documents with the assistance of Associate and/or Senior Engineers.
- Performs routine engineering calculations and mathematical analysis of design or system operational problems of low to moderate difficulty in hydraulics and hydrology, drainage control facilities, site civil and structural, sewer/water/water distribution facilities and equipment, and controls, and calculations and analysis to support rehabilitation studies and determinations of design standards.
- Assist Associate and/or Senior Engineers in coordinating project designs with structural, mechanical, and electrical disciplines.
- Performs engineering planning and design for capital improvement program projects; Researches and reviews land development plans and documents to ensure appropriate engineering design requirements in accordance with Guam Waterworks Authority standards.
- Assists in preparing cost estimates, progress payments to contractors, materials negotiation, and change orders
- Establishes and prepares progress schedules, technical correspondence, and engineering reports related to assigned projects.
- Assist engineers with planning, design, and construction management of projects to construct, enlarge, and modify water and wastewater facilities.
- Coordinates and performs engineering-related CADD and GIS functions.
- Reviews and consults with engineers, architects, and contractors regarding plan modifications.
- Coordinates the maintenance and retention of engineering maps and records from paper to electronic format.
- Perform other duties as assigned or required.

JUNIOR ENGINEER

KNOWLEDGE, ABILITIES, AND SKILLS:

- Knowledge of engineering principles and practices.
- Knowledge of complex mathematical calculations.
- Knowledge of one or more of the following disciplines: Civil, Environmental, Structural, Architectural, Mechanical, and/or Electrical engineering terminology and techniques.
- Knowledge of engineering fundamentals, scientific and civil engineering concepts, phenomena, and relationships, and utilizes in the solution of theoretical or practical civil engineering.
- Knowledge of modern methods, materials, and techniques of assigned discipline.
- Knowledge of basic surveying, drafting, computer-aided design techniques and technology; current developments and literature, and sources of information regarding civil engineering.
- Knowledge of computer software applications including word processing, spreadsheets, graphics, and databases.
- Knowledge of English usage, spelling, punctuation, and grammar; modern office procedures, methods.
- Ability to learn U.S. Environmental Protective Agency (USEPA) and Guam Environmental Protective Agency (GEPA) Drinking Water and Clean Water Regulations.
- Ability to make basic engineering computations and ability to learn to check, design, and prepare engineering plans, studies, profiles, and maps.
- Ability to perform complex engineering computations, calculus, geometry, and trigonometry rapidly and accurately.
- Ability to use a personal computer, engineering applications, and data management software.
- Ability to use graphic instructions such as blueprints, schematic drawings, layouts, and other visual aids.
- Ability to use and care for engineering and surveying instruments and computer equipment.
- Ability to learn and understand GWA regulations and engineering policies and procedures.
- Ability to learn applicable laws and regulatory codes applicable to areas of assigned responsibility.
- Ability to learn to prepare accurate cost estimates and recommendations.
- Ability to learn to analyze and prepare technical reports.
- Ability to communicate clearly and concisely, both orally and in writing.

JUNIOR ENGINEER

MINIMUM EXPERIENCE, EDUCATION, AND TRAINING:

Bachelor's degree from an accredited college or university in engineering or a related field with major coursework including or supplemented by (24 semester credit-hours) in engineering subjects.

LICENSES, CERTIFICATES, AND SPECIAL REQUIREMENTS:

Possession of a valid Driver's license.

NECESSARY SPECIAL QUALIFICATIONS:

Possession of, or ability to obtain within two years of hire (unless extended by the General Manger), an Engineer-in-Training (EIT) Certificate by a respective board or authority recognized by the Guam Board of Registration for Professional Engineers, Architects, and Land Surveyors (PEALS) or US nationally recognized board.

ESTABLISHED: FEBRUARY 2007

AMENDED: JANUARY 2023

JE POINTS: 687

FLSA STATUS: EXEMPT

This classification specification revises and supersedes the standard established in February 2007 and amended in July 2010.

JOSEPH T. DUENAS, Chairman
Consolidated Commission on Utilities



GUAM WATERWORKS AUTHORITY
ASSOCIATE ENGINEER

NATURE OF WORK IN THE CLASS:

Under limited supervision, employees in the class perform a variety of routine to moderately complex engineering/assignments that are routine in nature and may require adaptation or modification from standard practices. The employee will be capable of exercising engineering judgment within defined methods, procedures, and practices within a procedural framework as established by the Engineering Supervisor.

ILLUSTRATIVE EXAMPLES OF WORK:

(Classification specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are not intended to reflect all duties performed within the position, as illustrated in the position description questionnaire).

- Performs a variety of professional-level engineering work in the research, planning, design, and construction of capital infrastructure improvement and maintenance projects.
- Completes a variety of engineering calculations and analyses including, but not limited to, pipeline capacities, structural capacities, hydraulic pressure, pipe, and open channel flows, groundwater flows, pump and equipment capacities, equipment and system controls, and related matters in support of projects and technical studies.
- Prepares preliminary engineering designs for presentation to groups involved in the project; prepares specifications and cost estimates, sketches or project options, and results of research requirements; prepares final designs for capital improvement projects.
- Prepares and/or assists with preliminary contract documents, specifications, and plans; Conducts field inspections of work done by contractors to ensure compliance with plans and specifications; Drafts and recommends approval of contract change orders.
- Prepares and maintains design drawings, schematics, diagrams, charts, databases plants, and permits under the supervision of a professional engineer.
- Prepare project cost estimates for the project manager. Research technical specifications for material and equipment purchases. Participate in bidding and contract activities.
- Assists in identifying, evaluating, and providing improvement recommendations with preliminary and final designs and design criteria for assigned programs and/or projects.
- Provides assistance in the preparation of preliminary and long-range plans, schedules, estimates, budgets, detailed final plans, specifications, special conditions, and agreements.
- Assist engineers with planning, design, and construction management of projects to construct, enlarge, and modify water and wastewater facilities.

ASSOCIATE ENGINEER

- Reviews and processes necessary permits, right-of-way agreements, and other documents related to the use of GWA property or right-of-way, or other government lands and right-of-way that are GWA's responsibility.
- Participates in engineering studies and prepares technical documents including, but not limited to, feasibility studies, preliminary and final design, environmental conditions, hydrogeology/soil conditions, water supply assessment, and strategic and master plans.
- Conduct site investigations to assess system deficiencies and/or site conditions; collect, reduce, compile and analyze field and test data; develop scope of work for performance improvement projects.
- Coordinates and performs engineering-related CADD and GIS functions.
- Perform other duties as assigned or required.

KNOWLEDGE, ABILITIES, AND SKILLS:

- Knowledge of one or more of the following disciplines: Civil, Environmental, Structural, Architectural, Mechanical, and/or Electrical engineering terminology and techniques.
- Knowledge of fundamental scientific and civil engineering concepts, phenomena, and relationships, and utilizes in the solution of theoretical or practical civil engineering.
- Knowledge of engineering designs, construction and maintenance principles and practices of engineering science and technology.
- Knowledge of modern methods, materials, and techniques used in the construction of water systems and facilities.
- Knowledge of basic surveying, drafting, computer-aided design techniques and technology; current developments and literature, and sources of information regarding civil engineering.
- Knowledge of computer software applications including word processing, spreadsheets, graphics, and databases.
- Knowledge of U.S. Environmental Protective Agency (USEPA) and Guam Environmental Protective Agency (GEPA) Drinking Water and Clean Water Regulations.
- Knowledge of Pollutant Discharge Elimination System (NPDES) permit program rules and regulations.
- Knowledge of Guam Waterworks Authority (GWA) rules and regulations, and other operational guidelines and directives.
- Knowledge of English usage, spelling, punctuation, and grammar; modern office procedures, methods.
- Knowledge of computer equipment; principles and practices of work safety.
- Ability to perform complex engineering computations, calculus, geometry, and trigonometry rapidly and accurately.
- Ability to use and care for engineering and surveying instruments and computer equipment.

ASSOCIATE ENGINEER

- Ability to learn to prepare accurate cost estimates and recommendations.
- Ability to learn to analyze and prepare technical reports.
- Ability to use a computer, calculator, telephone, and photocopy machine.
- Ability to communicate clearly and concisely, both orally and in writing.

MINIMUM EXPERIENCE, EDUCATION, AND TRAINING:

- A. Master's Degree in engineering from an accredited college or university and one (1) year of wastewater or water experience or municipal Capital Improvement experience; **or**
- B. Bachelor's Degree in engineering from an accredited college or university and two (2) years of wastewater or water experience or municipal Capital Improvement experience.

LICENSES, CERTIFICATES, AND SPECIAL REQUIREMENTS:

Possession of a valid Driver's license.

Possession of an Engineer-in-Training (EIT) Certificate by a respective board or authority recognized by the Guam Board of Registration for Professional Engineers, Architects, and Land Surveyors (PEALS) or US nationally recognized board.

ESTABLISHED: FEBRUARY 2007

AMENDED: JANUARY 2023

JE POINTS: 809

FLSA STATUS: EXEMPT

This classification specification revises and supersedes the standard established in February 2007 and amended in July 2010.

**JOSEPH T. DUENAS, Chairman
Consolidated Commission on Utilities**



GUAM WATERWORKS AUTHORITY

SENIOR ENGINEER

NATURE OF WORK IN THE CLASS:

Under the general supervision of a Professional Engineer, employees in this class perform a variety of moderately complex engineering work in the planning, design, construction, and operation of Guam Waterworks Authority (GWA) water/wastewater facilities including water storage, water and wastewater treatment, and related infrastructure improvement, maintenance, and construction projects. The employee independently evaluates, selects, and applies standard and/or complex engineering techniques, procedures, and criteria, using judgment in making adaptations and modifications to engineering projects.

ILLUSTRATIVE EXAMPLES OF WORK:

(Classification specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are not intended to reflect all duties performed within the position, as illustrated in the position description questionnaire).

- Performs a variety of professional-level engineering work in the research, planning, design, and construction of capital infrastructure improvement and maintenance projects.
- Completes a variety of engineering calculations and analyses including, but not limited to, pipeline capacities, structural capacities, hydraulic pressure, pipe, and open channel flows, groundwater flows, pump and equipment capacities, equipment and system controls, and related matters in support of projects and technical studies.
- Prepares preliminary engineering designs for presentation to groups involved in the project; prepares specifications and cost estimates, sketches or project options, and results of research requirements; prepares final designs for capital improvement projects.
- Prepares preliminary contract documents, specifications, and plans; Conducts field inspections of work done by contractors to ensure compliance with plans and specifications; Drafts and recommends approval of contract change orders.
- Prepares and maintains design drawings, schematics, diagrams, charts, databases plants, and permits under the supervision of a professional engineer.
- Prepares cost estimates and tracks expenditures; prepares cost estimates and engineering and feasibility reports and studies for projects.
- Performs duties related to drafting, computing, and checking of field operations as related to the layout and construction of projects.
- Assists in identifying, evaluating, and providing improvement recommendations with preliminary and final designs and design criteria for assigned programs and/or projects.
- Leads, as necessary, activities of a design team in the preparation of preliminary and long-range plans, schedules, estimates, budgets, detailed final plans, specifications, special conditions, and agreements.

SENIOR ENGINEER

- Assist planning, design, and construction management of projects to construct, enlarge, and modify water and wastewater facilities.
- Reviews and processes necessary permits, right-of-way agreements, and other documents related to the use of GWA property or right-of-way, or other government lands and right-of-way that are GWA's responsibility.
- Participates in engineering studies and prepares technical documents including, but not limited to, feasibility studies, preliminary and final design, environmental conditions, hydrogeology/soil conditions, water supply assessment, strategic and master plans, and related materials.
- Conduct site investigations to assess system deficiencies and/or site conditions; collect, reduce, compile and analyze field and test data; develop scope of work for performance improvement projects.
- Prepare project cost estimates for the project manager. Research technical specifications for material and equipment purchases. Participate in bidding and contract activities.
- Coordinates and performs engineering-related CADD and GIS functions.
- Draft presentations to the General Manager, Guam Legislature, or the Consolidated Commission on Utilities.
- Perform other duties as assigned or required.

KNOWLEDGE, ABILITIES, AND SKILLS:

- Knowledge of one or more of the following disciplines: Civil, Environmental, Structural, Architectural, Mechanical, and/or Electrical engineering terminology and techniques.
- Knowledge of fundamental scientific and civil engineering concepts, phenomena, and relationships, and utilizes in the solution of theoretical or practical civil engineering.
- Knowledge of engineering designs, construction and maintenance principles and practices of engineering science and technology.
- Knowledge of modern methods, materials, and techniques used in the construction of water systems and facilities.
- Knowledge of phases of the plans reviews and inspections process.
- Knowledge of basic surveying, drafting, computer-aided design techniques and technology; current developments and literature, and sources of information regarding civil engineering.
- Knowledge of computer software applications including word processing, spreadsheets, graphics, and databases.
- Knowledge of U.S. Environmental Protective Agency (USEPA) and Guam Environmental Protective Agency (GEPA) Drinking Water and Clean Regulations;
- Knowledge of Pollutant Discharge Elimination System (NPDES) permit program rules and regulations.

SENIOR ENGINEER

- Knowledge of Guam Waterworks Authority (GWA) rules and regulations, and other operational guidelines and directives.
- Knowledge of English usage, spelling, punctuation, and grammar; modern office procedures, methods
- Knowledge of computer equipment; principles and practices of work safety.
- Knowledge of advanced mathematical techniques such as trigonometry, calculus, and coordinate geometry.
- Ability to perform complex engineering computations, calculus, geometry, and trigonometry rapidly and accurately.
- Ability to use and care for engineering and surveying instruments and computer equipment.
- Ability to prepare accurate cost estimates and recommendations.
- Ability to analyze and prepare technical reports.
- Ability to use a computer, calculator, telephone, and photocopy machine.
- Ability to communicate clearly and concisely, both orally and in writing.

MINIMUM EXPERIENCE, EDUCATION, AND TRAINING:

- A. Master's Degree in engineering from an accredited college or university and three (3) years of wastewater or water experience or municipal Capital Improvement experience; **or**
- B. Bachelor's Degree in engineering from an accredited college or university and four (4) years of wastewater or water experience or municipal Capital Improvement experience.

LICENSES, CERTIFICATES, AND SPECIAL REQUIREMENTS:

Possession of a valid Driver's license.

Possession of, an Engineer-in-Training (EIT) Certificate by a respective board or authority recognized by the Guam Board of Registration for Professional Engineers, Architects, and Land Surveyors (PEALS) or US nationally recognized board.

ESTABLISHED: FEBRUARY 2007

AMENDED: JANUARY 2023

JE POINTS: 931

FLSA STATUS: EXEMPT

SENIOR ENGINEER

This classification specification revises and supersedes the standard established in February 2007 and amended in July 2010.

JOSEPH T. DUENAS, Chairman
Consolidated Commission on Utilities

PROPOSED



GUAM WATERWORKS AUTHORITY

PROJECT ENGINEER, P.E.

NATURE OF WORK IN THE CLASS:

Under general direction, employees in the class are responsible for a project and/or program management of multiple or multi-year large complex engineering water and wastewater system projects in connection with the design, surveying, testing of materials, and construction. The employees in this class serve as the project manager and oversee and coordinate the work of consultants and lead other engineers assigned to the project.

ILLUSTRATIVE EXAMPLES OF WORK:

(Classification specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are not intended to reflect all duties performed within the position, as illustrated in the position description questionnaire).

- Serves as the project manager for more complex capital improvement projects including the development of Requests for Qualifications and Requests for Proposals, the development and monitoring of project budgets, management of outside design consulting firms, and management of the construction phase
- Leads and performs major planning and program studies and makes recommendations for water system infrastructure in support of capital improvements to the Engineering Supervisor.
- Plans, prioritizes, and leads the work of staff assigned to a project performing a variety of professional engineering tasks associated with the planning, design, construction, maintenance, and operation of GWA water and wastewater facilities.
- Develops schedules and methods to accomplish assignments, ensuring work is completed in a timely and efficient manner
- Provides feedback to Engineering Supervisor regarding the staff performance and/or non-performance of activities on assigned projects.
- Manages the planning, design, and construction of water systems for new development and capital improvement projects, including securing funding and management of project budgets and schedules.
- Performs a variety of professional-level engineering work in the research, planning, design, and construction of capital infrastructure improvement and maintenance projects
- Completes a variety of engineering calculations and analyses including, but not limited to, pipeline capacities, structural capacities, hydraulic pressure, pipe, and open channel flows, groundwater flows, pump and equipment capacities, equipment and system controls and related matters in support of projects and technical studies.
- Prepares engineering designs for presentation to groups involved in the project; prepares specifications and cost estimates, sketches or project options, and results of research requirements; prepares final designs for capital improvement projects.

PROJECT ENGINEER, P.E.

- Prepares contract documents, specifications, and plans; Conducts field inspections of work done by contractors to ensure compliance with plans and specifications; Drafts and recommends approval of contract change orders.
- Prepares and maintains design drawings, schematics, diagrams, charts, databases plants, and permits under the supervision of a professional engineer.
- Prepares/reviews project cost estimates for the Engineer Supervisor. Research technical specifications for material and equipment purchases. Participate in bidding and contract activities.
- Assists in identifying, evaluating, and providing improvement recommendations with preliminary and final designs and design criteria for assigned programs and/or projects.
- Provides assistance in the preparation of short and long-range plans, schedules, estimates, budgets, detailed final plans, specifications, special conditions, and agreements.
- Assist engineers with planning, design, and construction management of projects to construct, enlarge, and modify water and wastewater facilities.
- Reviews and processes necessary permits, right-of-way agreements, and other documents related to the use of GWA property or right-of-way, or other government lands and right-of-way that are GWA's responsibility.
- Participates in engineering studies and prepares technical documents including, but not limited to, feasibility studies, preliminary and final design, environmental conditions, hydrogeology/soil conditions, water supply assessment, and strategic and master plans.
- Conduct site investigations to assess system deficiencies and/or site conditions; collect, reduce, compile and analyze field and test data; develop scope of work for performance improvement projects.
- Coordinates and performs engineering-related CADD and GIS functions.
- Perform other duties as assigned or required.

KNOWLEDGE, ABILITIES, AND SKILLS:

- Knowledge of principles and practices of training and supervision.
- Knowledge of principles and practices of project engineering management.
- Knowledge of one or more of the following disciplines: Civil, Environmental, Structural, Architectural, Mechanical, and/or Electrical engineering terminology and techniques.
- Knowledge of fundamental scientific and civil engineering concepts, phenomena, and relationships, and utilizes in the solution of theoretical or practical civil engineering.
- Knowledge of engineering designs, construction and maintenance principles and practices of engineering science and technology.
- Knowledge of modern methods, materials, and techniques used in the construction of water systems and facilities.

PROJECT ENGINEER, P.E.

- Knowledge of basic surveying, drafting, computer-aided design techniques and technology; current developments and literature, and sources of information regarding civil engineering.
- Knowledge of computer software applications including word processing, spreadsheets, graphics, and databases.
- Knowledge of U.S. Environmental Protective Agency (USEPA) and Guam Environmental Protective Agency (GEPA) Drinking Water and Clean Water Regulations.
- Knowledge of Pollutant Discharge Elimination System (NPDES) permit program rules and regulations.
- Knowledge of Guam Waterworks Authority (GWA) rules and regulations, and other operational guidelines and directives.
- Knowledge of English usage, spelling, punctuation, and grammar; modern office procedures, methods.
- Knowledge of computer equipment; principles and practices of work safety.
- Ability to plan, supervise, direct and coordinate the work of professional, technical, and contract staff.
- Ability to manage projects of varying sizes and budgets.
- Ability to evaluate complex designs and consulting work.
- Ability to perform feasibility and cost analyst studies.
- Ability to prepare and draft presentations to management, government entities and the Board of Consolidated Commissioners on Utilities.
- Ability to interpret and apply complex, rules, regulations, laws, and ordinances.
- Ability to perform complex engineering computations, calculus, geometry, and trigonometry rapidly and accurately.
- Ability to use and care for engineering and surveying instruments and computer equipment.
- Ability to prepare and review accurate cost estimates and recommendations.
- Ability to analyze, prepare and review technical reports.
- Ability to use a computer, calculator, telephone, and photocopy machine.
- Ability to communicate clearly and concisely, both orally and in writing.

PROJECT ENGINEER, P.E.**MINIMUM EXPERIENCE, EDUCATION, AND TRAINING:**

- A. Master's Degree in engineering from an accredited college or university and five (5) years of wastewater or water experience or municipal Capital Improvement experience; **or**
- B. Bachelor's Degree in engineering from an accredited college or university and six (6) years of wastewater or water experience or municipal Capital Improvement experience.

LICENSES, CERTIFICATES, AND SPECIAL REQUIREMENTS:

Registered as a Professional Engineer by the Guam Board of Registration for Professional Engineers, Architects, and Land Surveyors (PEALS).

Possession of a valid Driver's license.

ESTABLISHED: FEBRUARY 2007

AMENDED: JANUARY 2023

JE POINTS: 1024

FLSA STATUS: EXEMPT

This classification specification revises and supersedes the standard established in February 2007 and amended in July 2010.

JOSEPH T. DUENAS, Chairman
Consolidated Commission on Utilities



GUAM WATERWORKS AUTHORITY
ENGINEER SUPERVISOR, P.E.

NATURE OF WORK IN THE CLASS:

Under general direction, employees in the class are responsible for a project and/or program management of multiple or multi-year large complex engineering water and wastewater system projects in connection with the design, surveying, testing of materials, and construction. The employees in this class serve as the project manager and oversee and coordinate the work of consultants and lead other engineers assigned to the project.

ILLUSTRATIVE EXAMPLES OF WORK:

(Classification specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are not intended to reflect all duties performed within the position, as illustrated in the position description questionnaire).

- Supervises professional and technical staff performing civil, structural, electrical, mechanical, and environmental engineering analysis, planning, design, contracting, construction and construction management, consultant management, permitting, and public outreach.
- Ensures that employees are properly trained, follow safe work practices, and properly document office and fieldwork.
- Participates in interviews and recommends candidates for the General Manager's approval; plans, prioritizes, assigns, and reviews work; approves time off for payroll purposes; prepares employee performance evaluations; monitors and participates in employee relations activities within the department.
- Provides technical oversight and coordination of work through project/program coordination meetings and other means; monitors progress against project/program schedules; recommends allocation of resources as required to accomplish goals.
- Collaborates with other supervisors, managers, and staff to coordinate programs, projects, and activities amongst work groups.
- Serves as a liaison person with a variety of government agencies regarding water quality and environmental compliance, project review and implementation, water supply, and engineering issues.
- Prepares annual budget requests for assigned programs; estimates staffing, equipment, and supply needs to be based upon recent trends and planned activities; monitors expenditures after budget adoption; approves purchase requisitions.
- Supervises engineering review of requests and proposals during the annual budget process; after budget approval, assigns projects to engineering staff; sets priorities and adjusts workload accordingly.
- Prepares and updates engineering procedures, agreements, contracts, fee structures, and guidelines; ensures projects are implemented in accordance with Guam Waterworks Authority's procurement guidance, purchasing, Request for Proposals (RFP), and contracting procedures.

ENGINEER SUPERVISOR, P.E.

- Reviews inspection reports and assists in resolution of field construction problems; authorizes or recommends change orders and claims resolution; represents GWA in engineering contract dispute resolution meetings.
- Supervises professional and technical staff engaged in water system engineering studies and/or pilot tests with emphasis on optimizing water treatment and water quality control processes; reviews and provides input and direction to the work of consultants; assists in developing implementation strategies and plans to meet current and future regulatory requirements.
- Supervises professional and technical staff engaged in GWA's water treatment and distribution system regulatory compliance program; develops and maintains standard operating procedures for compliance, oversees preparation and permit applications, submitting required reports, responding to regulatory actions and ensuring completion of follow-up measures as needed.
- Supervises and participates in the work of professional and technical staff responsible for performing mechanical, electrical, control and Supervisory Control and Data Acquisition (SCADA) systems administration, analysis, planning, design, installation, testing, troubleshooting, maintenance and repair, contractor and consultant management, and related work.
- Coordinates with other divisions and departments with regard to planning for water supply deliveries, operation of the groundwater basin, and related issues.
- Participates in and oversees assigned program's contribution to the development of the GWA's Water Resources Master Planning, systems operational planning, and other long-term utility planning efforts.
- Manages the planning, design, and construction of water/wastewater systems for new development and capital improvement projects, including securing funding and management of project budgets and schedules.
- Performs a variety of professional-level engineering work in the research, planning, design, and construction of capital infrastructure improvement and maintenance projects
- Reviews and supervises the completion of a variety of engineering calculations including, but not limited to, pipeline capacities, structural capacities, hydraulic pressure, pipe, and open channel flows, groundwater flows, pump and equipment capacities, equipment and system controls, and related matters in support of projects and technical studies.
- Reviews and supervises the preparation of engineering designs for presentation to groups involved in the project; prepares specifications and cost estimates, sketches or project options, and results of research requirements; prepares final designs for capital improvement projects.
- Reviews and supervises the preparation of contract documents, specifications, and plans; Oversees and directs field inspections of work done by contractors to ensure compliance with plans and specifications; Drafts and recommends approval of contract change orders.
- Oversees the preparation and maintenance of design drawings, schematics, diagrams, charts, databases plants, and permits for projects under the assigned program..
- Reviews and approves project cost estimates for submission to the Engineering manager. Reviews and approves technical specifications for material and equipment purchases to be submitted to Engineering manager. Oversee and participate in bidding and contract activities within the assigned program.

ENGINEER SUPERVISOR, P.E.

- Reviews permits, right-of-way agreements, and other documents related to the use of GWA property or right-of-way, or other government lands and right-of-way that are GWA's responsibility.
- Supervises engineering studies and prepares technical documents including, but not limited to, feasibility studies, preliminary and final design, environmental conditions, hydrogeology/soil conditions, water supply assessment, and strategic and master plans.
- Conduct site investigations to assess system deficiencies and/or site conditions; collect, reduce, compile and analyze field and test data; develop scope of work for performance improvement projects.
- Perform other duties as assigned or required.

KNOWLEDGE, ABILITIES, AND SKILLS:

- Knowledge of principles and practices of training and supervision.
- Knowledge of principles and practices of project engineering management.
- Knowledge of one or more of the following disciplines: Civil, Environmental, Structural, Architectural, Mechanical, and/or Electrical engineering terminology and techniques
- Knowledge of fundamental scientific and civil engineering concepts, phenomena, and relationships, and utilizes in the solution of theoretical or practical civil engineering;
- Knowledge of engineering designs, construction and maintenance principles and practices of engineering science and technology.
- Knowledge of modern methods, materials, and techniques used in the construction of water systems and facilities;
- Knowledge of basic surveying, drafting, computer-aided design techniques and technology; current developments and literature, and sources of information regarding civil engineering;
- Knowledge of computer software applications including word processing, spreadsheets, graphics, and databases;
- Knowledge of U.S. Environmental Protective Agency (USEPA) and Guam Environmental Protective Agency (GEPA) Drinking Water Regulations;
- Knowledge of Pollutant Discharge Elimination System (NPDES) permit program rules and regulations.
- Knowledge of Guam Waterworks Authority (GWA) rules and regulations, and other operational guidelines and directives.
- Knowledge of English usage, spelling, punctuation, and grammar; modern office procedures, methods
- Knowledge of computer equipment; principles and practices of work safety.
- Ability to plan, supervise, direct and coordinate the work of professional, technical, and contract staff.

ENGINEER SUPERVISOR, P.E.

- Ability to manage projects of varying sizes and budgets.
- Ability to evaluate complex designs and consulting work.
- Ability to supervise, review and perform feasibility and cost analyst studies.
- Ability to prepare and draft presentations to management, government entities and the Consolidated Commission on Utilities.
- Ability to interpret and apply complex, rules, regulations, laws, and ordinances.
- Ability to review and perform complex engineering computations, calculus, geometry, and trigonometry rapidly and accurately.
- Ability to use and care for engineering and surveying instruments and computer equipment.
- Ability to critically review and prepare accurate cost estimates and recommendations.
- Ability to critically review, analyze and prepare technical reports.
- Ability to use a computer, calculator, telephone, and photocopy machine.
- Ability to communicate clearly and concisely, both orally and in writing.
- Skill in directing multiple squads of engineers to fulfill engineering project goals and deadlines for the Civil, Electrical and Mechanical Specialties.
- Skill in directing multidisciplinary teams to fulfill water resources project goals and deadlines for the Water Resources Specialty.
- Skill in analyzing and evaluating engineering design or construction proposals for technical and economic feasibility

MINIMUM EXPERIENCE, EDUCATION, AND TRAINING:

- A. Master's Degree in engineering from an accredited college or university and seven (7) years of wastewater or water experience or municipal Capital Improvement experience and two (2) years of supervisor responsibility; **or**
- B. Bachelor's Degree in engineering from an accredited college or university eight (8) years of wastewater or water experience or municipal Capital Improvement experience and two (2) years of supervisor responsibility.

LICENSES, CERTIFICATES, AND SPECIAL REQUIREMENTS:

Registered as a Professional Engineer on Guam under the authority of the Guam Board of Registration for Professional Engineers, Architects and Land Surveyors (PEALS).

Possession of a valid Driver's license.

ENGINEER SUPERVISOR, P.E.

ESTABLISHED: FEBRUARY 2007

AMENDED: JANUARY 2022

JE POINTS: 1173

FLSA STATUS: EXEMPT

This classification specification revises and supersedes the standard established in February 2007 and amended in July 2010.

**JOSEPH T. DUENAS, Chairman
Consolidated Commission on Utilities**



GUAM WATERWORKS AUTHORITY
ASSISTANT CHIEF ENGINEER, P.E.

NATURE OF WORK IN THE CLASS:

Under policy direction, assist in managing and directing the activities of the Guam Waterworks Authority (GWA) Engineering operations. The employees in this class plan, organize, and direct GWA's Engineering Division activities and provides highly complex assistance to the Assistant General Manager, P.E. - Engineering (AGME).

ILLUSTRATIVE EXAMPLES OF WORK:

(Classification specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are not intended to reflect all duties performed within the position, as illustrated in the position description questionnaire).

- Assist the Assistant General Manager, P.E. - Engineering (AGME) in managing and directing the activities of the Engineering Division and providing direct supervision of all engineering projects.
- Participates regularly in leadership and management programs to provide positive constructive leadership and management direction to staff and all levels of the organization.
- Promotes effective and efficient operations throughout the organization by facilitating interdepartmental cooperation and sharing of resources.
- Develops, plans and implements goals and objectives for reporting consistent with the GWA's organizational mission, values and goals to provide the highest quality water to consumers at the lowest possible cost; utilizes performance planning techniques to identify, establish, achieve and measure goals and objectives for reporting departments and divisions.
- Reviews, interprets, develops, modifies and implements GWA's policies and their application to specific situations; resolves conflicts in matters/issues not addressed by existing GWA policies and procedures.
- Continuously monitors and evaluates the efficiency and effectiveness of service delivery methods and procedures; optimizes organizational structure and staffing levels by monitoring the effectiveness of work performed, workload, administrative and support systems and internal reporting relationships and establishing and evaluating business practices and performance metrics; identifies opportunities for improvement and directs and implements change management strategies.
- Selects, trains, motivates, and directs engineering; evaluates and reviews work for acceptability and conformance with department goals, priorities, and performance metrics; works with employees on performance issues, coordinates training and development and implements discipline and termination procedures.
- Assists in developing and coordinating GWA annual budget; reviews budget proposals made by assigned departments and divisions; recommends budgets to AGME for inclusion in the proposed budget; reviews and recommends budget adjustments; reviews expenditures/revenues.

ASSISTANT CHIEF ENGINEER, P.E.

- Allocates and commits resources, including funding, staffing, and facilities for new and existing programs, particularly those arising outside the annual budget process.
- Coordinates planning, design, and construction of water treatment, transmission, storage, and distribution facilities projects to meet local, and federal requirements; administers the GWA's request for proposal and bid acceptance processes; negotiates contracts, dispute resolutions and claims settlements; recommends or approves project deviations or change orders within approved guidelines.
- Assist in directing the management and organization of construction activities including construction management, construction inspection, and project scheduling and budget preparation.
- Provides leadership in the implementation of special project(s), including managing the development of grant funding or funding by outside agencies or organizations, negotiation and implementation of agreements and contracts involving outside agencies, development of project environmental documentation and engineering project design documents, securing project permits and project construction activities
- Perform other duties as assigned or required.

KNOWLEDGE, ABILITIES, AND SKILLS:

- Knowledge of supervisory and management techniques and principles in programs, projects, and personnel.
- Knowledge of fiscal planning and budget preparation.
- Knowledge of U.S. Environmental Protective Agency (USEPA) and Guam Environmental Protective Agency (GEPA) Drinking Water Regulations;
- Knowledge of Pollutant Discharge Elimination System (NPDES) permit program rules and regulations.
- Knowledge of Guam Waterworks Authority (GWA) rules and regulations, and other operational guidelines and directives.
- Knowledge of local and federal water and wastewater utility regulations.
- Knowledge of diversified, fundamental scientific and civil engineering concepts, phenomena, and relationships and utilize in the solution of theoretical and practical civil engineering problems.
- Knowledge of advanced mathematical techniques such as trigonometry, engineering computations, calculus, and geometry.
- Knowledge to perform more complex engineering computations, calculus, geometry, and trigonometry rapidly and accurately.
- Knowledge of GWA's budget planning, purchasing, and contract policies and procedures.
- Knowledge of engineering designs, construction and maintenance principles and practices of engineering science and technology.
- Knowledge of modern methods, materials, and techniques used in the construction of water systems and facilities;

ASSISTANT CHIEF ENGINEER, P.E.

- Knowledge of surveying, drafting, computer-aided design techniques and technology; current developments and literature, and sources of information regarding civil engineering;
- Knowledge of computer software applications including word processing, spreadsheets, graphics, and databases;
- Knowledge of English usage, spelling, punctuation, and grammar; modern office procedures, methods
- Knowledge of computer equipment; principles and practices of work safety.
- Ability to manage multiple projects and programs simultaneously with approved budgets.
- Ability to understand and interpret engineering and technical data related to assigned engineering disciplines.
- Ability to organize, analyze, interpret, and evaluate scientific civil engineering problems and provide practical, cost-effective solutions.
- Ability to communicate and provide direction to peers and assigned personnel.
- Ability to observe, compare, or monitor objects and data to determine compliance with prescribed operating or safety standards.
- Skill in negotiations and handling conflict resolution.
- Skill in oral and written technical and/or general communication, including preparation of written reports.
- Skill in developing, reviewing, monitoring, and evaluating contracts for services and/or materials.

MINIMUM EXPERIENCE, EDUCATION, AND TRAINING:

- A. Master's Degree in engineering from an accredited college or university and nine (9) years of wastewater or water experience or municipal Capital Improvement experience and four (4) years of supervisory/management experience in Engineering; **or**
- B. Bachelor's Degree in engineering from an accredited college or university and ten (10) years of wastewater or water experience or municipal Capital Improvement experience and four (4) years of supervisory/management experience in Engineering.

LICENSES, CERTIFICATES, AND SPECIAL REQUIREMENTS:

Registered as a Professional Engineer by the Guam Board of Registration for Professional Engineers, Architects, and Land Surveyors (PEALS).

Possession of a valid Driver's license.

ASSISTANT CHIEF ENGINEER, P.E.

ESTABLISHED: FEBRUARY 2007

AMENDED: JANUARY 2023

JE POINTS: 1217

FLSA STATUS: EXEMPT

This classification specification revises and supersedes the standard established in February 2007 and amended in July 2010.

**JOSEPH T. DUENAS, Chairman
Consolidated Commission on Utilities**

PROPOSED



GUAM WATERWORKS AUTHORITY

ASSISTANT GENERAL MANAGER, P.E. – ENGINEERING (AGME) **(UNCLASSIFIED)**

NATURE OF WORK IN THE CLASS:

Under general direction, functions as an executive-level manager, reporting directly to the Guam Waterworks Authority (GWA), General Manager. This position is in the unclassified service and is accountable for the planning, designing, directing, administration, and controlling of resources for the engineering, construction, and maintenance of major existing and future engineering projects for GWA. The incumbent is responsible for managing the Engineering Division of GWA and all personnel assigned to the division including water and wastewater services and treatment, reclaimed water services, water resource planning, and analysis.

ILLUSTRATIVE EXAMPLES OF WORK:

(Classification specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are not intended to reflect all duties performed within the position, as illustrated in the position description questionnaire).

- Manages, directs, implements, and/or monitors projects/programs including the review of plans and development proposals for impacts related to the overall implementation of the capital improvement program and maintenance of the GWA's water and wastewater systems; Approves construction plans.
- Providing oversight and direction to the operations and maintenance of the GWA water, wastewater, and reclaimed systems and services. Provides oversight and direction to the development of short and long-term planning goals and objectives for GWA.
- Recommends revisions and permit requirements to mitigate the negative impact of development and assures plans confirm to GWA policies, and standard operating procedures; Establishes departmental rules and regulations.
- Manages contracts by reviewing the monthly engineering progress report; Acts as a liaison among consultants, contractors, subcontractors, and/or the government.; Negotiates problems of changes, errors, or deficiencies and ensures compliance with project specifications and requirements; Resolves conflicts in difficult situations.
- Reviews, evaluates, and prepares replies to technical and management audits.
- Coordinates various phases of designing, planning, and preparation of project details; Monitors projects/programs for regulatory compliance.
- Develops, revises, and implements standard operating procedures, policies, and ordinances by applying advanced technical and managerial knowledge and applying changes to meet GWA's quality goals and objectives. Ensuring compliance with GWA, US, and Guam Environmental Protective Agencies' practices, policies, and procedures.
- Attends meetings, conducts presentations, and provides testimony before appropriate regulatory and governmental bodies (e.g., Guam Legislature, Governor of Guam, Consolidated Commission on Utilities, Public Utilities Commission, etc.)

ASSISTANT GENERAL MANAGER, P.E. – ENGINEERING (AGME)
(UNCLASSIFIED)

- Develops and reviews water and wastewater infrastructure engineering designs and criteria, project delivery, Capital Improvement Projects (CIP), CIP tracking systems and project budgets and expenditures with variance explanations.
- Maintaining liaison with local, and Federal agencies concerning utility regulations, grants, and procedures.
- Providing oversight and direction to the utility's annual operating and capital improvement program budget for submission to the General Manager; Plans and prepares budgeting and program management of the water and wastewater capital improvements and facilities.
- Compiles engineering and financial data on the existing water main systems and new capital projects to assist GWA in obtaining funding from various sources (e.g., bonds, loans, grants) for planned water main infrastructure improvements.
- Manages professional engineers involved in the review of the preparation of designs, plans, specifications, layouts, and other construction documentation.
- Develops and monitors performance indicators on capital improvement programs.
- Provides oversight to staff engaged in contract administration activities (e.g., reviewing and evaluating contract proposals, finalizing contracts for submission to Procurement and the General manager, including monitoring contracts for compliance)
- Selects, supervises, trains, and evaluates the performance of assigned engineers and staff.
- Investigates and resolve the public's inquiries and complaints
- Reviews, analyzes, and prepares both written and oral reports.
- Determines goals, objectives, and resource requirements for activities within assigned division.
- Performs other duties and responsibilities as assigned.

KNOWLEDGE, ABILITIES, AND SKILLS:

- Knowledge of supervisory and management techniques and principles in programs, projects, and personnel.
- Knowledge of fiscal planning and budget preparation.
- Knowledge of U.S. Environmental Protective Agency (USEPA) and Guam Environmental Protective Agency (GEPA) Drinking Water and Clean Water Regulations.
- Knowledge of Pollutant Discharge Elimination System (NPDES) permit program rules and regulations.
- Knowledge of Guam Waterworks Authority (GWA) rules and regulations, and other operational guidelines and directives.
- Knowledge of local and federal water and wastewater utility regulations.

ASSISTANT GENERAL MANAGER, P.E. – ENGINEERING (AGME)
(UNCLASSIFIED)

- Knowledge of diversified, fundamental scientific and civil engineering concepts, phenomena, and relationships and utilize in the solution of theoretical and practical civil engineering problems.
- Knowledge of advanced mathematical techniques such as trigonometry, engineering computations, calculus, and geometry.
- Knowledge to perform more complex engineering computations, calculus, geometry, and trigonometry rapidly and accurately.
- Knowledge of GWA's budget planning, purchasing, and contract policies and procedures.
- Knowledge of engineering designs, construction and maintenance principles and practices of engineering science and technology.
- Knowledge of modern methods, materials, and techniques used in the construction of water systems and facilities.
- Knowledge of surveying, drafting, computer-aided design techniques and technology; current developments and literature, and sources of information regarding civil engineering.
- Knowledge of computer software applications including word processing, spreadsheets, graphics, and databases.
- Knowledge of English usage, spelling, punctuation, and grammar; modern office procedures, methods.
- Knowledge of computer equipment; principles and practices of work safety.
- Ability to manage multiple projects and programs simultaneously with approved budgets.
- Ability to understand and interpret engineering and technical data related to assigned engineering disciplines.
- Ability to organize, analyze, interpret, and evaluate scientific civil engineering problems and provide practical, cost-effective solutions.
- Ability to communicate and provide direction to peers and assigned personnel.
- Ability to observe, compare, or monitor objects and data to determine compliance with prescribed operating or safety standards.
- Skill in negotiations and handling conflict resolution.
- Skill in oral and written technical and/or general communication, including preparation of written reports.
- Skill in developing, reviewing, monitoring, and evaluating contracts for services and/or materials.
- Skill in analyzing complex data from various sources, synthesizing collected information, and developing sound decisions/recommendations for the General Manager.

ASSISTANT GENERAL MANAGER, P.E. – ENGINEERING (AGME)
(UNCLASSIFIED)

MINIMUM EXPERIENCE, EDUCATION, AND TRAINING:

- A. Master's Degree in engineering from an accredited college or university and fourteen (14) years of wastewater or water experience or municipal Capital Improvement experience and six (6) years of supervisory/management experience in Engineering; *or*
- B. Bachelor's Degree in engineering from an accredited college or university and fifteen (15) years of wastewater or water experience or municipal Capital Improvement experience and six (6) years of supervisory/management experience in Engineering.

LICENSES, CERTIFICATES, AND SPECIAL REQUIREMENTS:

Registered as a Professional Engineer by the Guam Board of Registration for Professional Engineers, Architects, and Land Surveyors (PEALS).

Possession of a valid Driver's license.

ESTABLISHED: NOVEMBER 2020

AMENDED: JANUARY 2023

JE POINTS: 1514

FLSA STATUS: EXEMPT

This classification specification revises and supersedes the standard established in November 2020.

JOSEPH T. DUENAS, Chairman
Consolidated Commission on Utilities