

Employee Name:



MPP / Staff Position Description

HUMAN RESOURCES USE ONLY	
Conflict of Interest (COI) Designated: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>MPP Positions Only</u>
Mandated Reporter: <input checked="" type="checkbox"/> Limited <input type="checkbox"/> General <input type="checkbox"/> N/A	MPP Job Code:
Review Date: 10/16/2024	Job Family:
	Job Function:
	Job Category:

Mandated Reporter Per CANRA YES NO

The person holding this position is considered a 'mandated reporter,' under the California Child Abuse and Neglect Reporting Act (CANRA) and is required to comply with the requirements set forth in CSU Executive Order 1083 as a condition of employment.

Please Note: A current and accurate signed Position Description is required for each MPP / Staff position and must be on file in the Center for Human Resources. After completion, the Position Description should be reviewed, signed and dated by the employee, the supervisor and the Center for Human Resources - Classification and Compensation.

Please check one:	<input type="checkbox"/> New Position	<input checked="" type="checkbox"/> Existing Position Update
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Date:	8/29/2024
Department & Division:	Facilities Services/ Business and Financial Affairs
Employee Name <i>(leave blank if vacant):</i>	
Current Classification & Grade:	Building Service Engineer (6702)
FLSA Status: <i>(Exempt or non-exempt)</i>	Non-exempt
Working Title:	Building Service Engineer
Position Number & Job Code:	10002651 / 6702

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Working Title & Position Number of HEERA Designated Appropriate Administrator:	Baro, Jaime – Assistant Director MEP, Administrator I / 10000283
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I. FUNCTION OF THE EMPLOYING UNIT:

State the basic purpose of the Department/Unit in one brief paragraph. Include the division's DEI statement here.

The Division of Business and Financial Affairs is responsible for ensuring a safe, productive campus environment while providing the highest quality service in support of academic excellence through thoughtful stewardship of financial, technological, infrastructure and human resources at San Diego State University.

SDSU Facilities Services (FS) is a customer-service based organization providing facility maintenance activities through a transparent and deliberate process. It is responsible for the operation, maintenance, repair, renovation, remodel, and alteration activities in support of the academic and research mission of the university. Facilities Services employs approximately 250 employees and supports approximately eight million square feet of buildings (including residence halls and parking structures) and 280 acres of improved and unimproved land.

II. PURPOSE OF POSITION:

State the basic purpose of the position in one to three specific statements.

Building Service Engineer is distinguished from an Operating Engineer by the independent and ongoing performance of maintenance and repair work on a wider range of heating, ventilating, plumbing, electrical, mechanical, refrigeration, air conditioning, and water systems. Compared to the Air Conditioning/ Refrigeration Mechanic, the Building Service Engineer performs less sophisticated and comprehensive work on complex refrigeration and air conditioning systems. The work of an Air Conditioning/Refrigeration Mechanic requires a more comprehensive knowledge of these systems and the applicable regulations.

Under general supervision, incumbent performs the full range of skilled building service engineer work necessary to operate, maintain, inspect, diagnose, and repair campus HVAC systems and equipment. Incumbent tests, adjusts, and calibrates boiler and air-conditioning machinery; tests, adjust, and calibrates mechanical, electrical, pneumatic, and/or microprocessor control instruments; test and chemically treat boiler, condenser, and cooling tower water; makes repairs to steam, natural gas, water, refrigerant, air and oil distribution systems. Incumbent repairs/replaces bearings, shafts, seals, rings, and electrical wiring and installs central system parts, gauges, valves, and pipes.

Incumbents provide a proactive and comprehensive preventive maintenance program for the University. Participates in the efficient and successful completion of projects while respecting the learning environment and the educational mission of the university. Responds to emergencies to protect life-safety, property, the educational mission, and the reputation of San Diego State University.

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III. CHANGES IN RESPONSIBILITIES:

- N/A

IV. MAJOR RESPONSIBILITIES:

Clearly list the major responsibilities/essential functions in descending order from the most important to the least important. Indicate the approximate percentage of time spent in each (percentages should not be less than 5%). The percentage must total 100%.

Description of Responsibilities:	(%) Percent of Time
<p>Maintenance and Repair work – Under general supervision, incumbent operate, maintain, repair and inspect heating, ventilating, air conditioning, refrigeration and water systems and equipment; test, adjust, and calibrate boiler and air conditioning machinery and mechanical electrical, pneumatic, and/or microprocessor control instruments; test and chemically treat boiler, condenser, and cooling tower water from other systems; maintain, inspect, diagnose and make emergency repairs to steam, natural gas, water, refrigerant, air and oil distribution systems; regularly use features of building automation, systems to diagnose and troubleshoot problems in the HVAC systems while optimizing energy usage; monitor building automation systems data and adjust system accordingly; respond to service requests to adjust air flow, temperature and humidity balances for individuals rooms, building areas or buildings; maintain logs of maintenance and repairs using manual and computerized record- keeping systems; and may instruct and lead semi-skilled or unskilled assistants. Incumbents also repair and replace bearings, shafts, seals, rings and electrical wiring and install central system parts, gauges, valves and pipes which requires the application of journey-level skills in one or more of the applicable trades. Additionally, incumbents may rotate through various shifts assignments at stations either in a central plant or in the utilities centers of individual buildings or campus centers for the operation, service and repair of low, medium or high-speed revolution cogeneration equipment. Adjusts and calibrates environmental controls (direct digital, centrally located energy management system, stand-alone building management controllers, time clocks and manuals mechanicals control, etc.). Maintains all mechanical equipment spaces designated as support systems for HVAC operations; maintains all steam/condensate underground utility manholes, piping and pumping systems.</p>	40%
<p>Preventive Maintenance Work – Maintains, troubleshoots and tests HVAC installations; performs PM tasks.</p>	25%

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Description of Responsibilities:	(%) Percent of Time
<p>Renovation and Improvement Work – Assists in design and installation of equipment, piping and all associated instruments vital to the function of utility/support systems (steam, condensate, control air, chemical injection, natural gas and fuel oil); makes recommendations and implements strategies/equipment adjustments to optimize energy usage. Act as Project Manager for some in-house/contract projects if required.</p>	10%
<p>Emergency HVAC Work - Responds to trouble calls and minor work requests; troubleshoots and repairs or adjusts air flow, temperature, humidity balances (for buildings, buildings areas and individuals’ rooms); repairs leaks in distribution systems (steam, natural gas, water, etc.); makes related urgent minor repairs.</p>	10%
<p>Specialized HVAC Work – Assists Refrigeration Shop in operation and repair of centrifugal/absorption chillers and conventional air conditioning systems (maintains the water-side/steam-side system of cooling systems including on-site chemical testing and water treatment); repairs/replaces chill water coils, valves, piping, and pumps, condenser water pumping and piping systems. Maintains chemical treatment and chiller operations logs if required.</p>	5%
<p>Work Coordination and Accountability – Provides instruction and direction to unskilled and semi-skilled assistants; interprets plans and drawings; prepares working sketches; calculates shop estimates, estimates material costs; obtains phone quotations and prepares requisitions for ordering material, takes inventory of bench stock material and re-orders when necessary. Maintains records and retrieves data related to work performed using manual/computerized record-keeping systems; prepares standard reports; consults and works with other trades workers.</p>	5%
<p>Maintenance, Operation of Shop – Maintains and services tools and equipment used in the performance of duties; performs shop clean-up and maintains a safe and clean work area.</p>	3%
<p>General Support - Assists Custodial Services, Landscape Services, Mechanical Services staff and other trades in the accomplishment of their work (projects, events, on-going programs), and performs other tasks as assigned by the manager in support of the university and Facilities Services.</p>	2%
<p style="text-align: right;">Total =100%</p>	100%

V. LEAD WORK DIRECTION OVER OTHERS:

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List of individuals the incumbent supervises/leads. Indicate the type of supervision, whether direct (directly supervises the position and conducts performance evaluation) or general (acting in a lead capacity or assigning work).

Classification	Working Title	Type of work direction (Direct or General)
N/A	N/A	N/A

VI. POSITION REQUIREMENTS:

A. List education and years of experience required that are based on the classification standards.

Journey level skills equivalent to that acquired through two years documented journey-level experience on the operation, maintenance and repair of boiler, heating, ventilating, refrigeration and air conditioning equipment and systems, or a combination of formal course in mechanical technology and hand-on experience.

B. Skills, knowledge, and abilities required for this position that are based on the classification standards

Must have thorough knowledge of the latest methods, materials and equipment used in the HVAC trade and thorough knowledge of the proper use and care of the tools and equipment used in that work. Through knowledge of high- and low-pressure boilers, steam systems, fire tube boilers, hot water heating systems, ventilation systems and equipment, piping, pumps, valves, condensers, heat exchangers, steam traps and methods, tools, materials and equipment used in the operation, maintenance and repair of such equipment. Must have general knowledge of ventilation principles, thermal dynamics, and closed water systems, working knowledge of energy management systems. Must have thorough knowledge of current applicable state and federal regulations, and current health and safety codes, including appropriate reference of CalOSHA and Federal OSHA.

General knowledge of co-generation plant operation and principles; ventilation principles such as airflow calculation, duct sizing and static pressure calculations, pneumatic electric/electronic controls. Through knowledge of energy management systems and computer operation and through understanding of pneumatic, electric, and electronic DDC control systems (programming logic, the functional of logical operators and statements, schematic drawings and ladder diagrams and ability to generate the same from a sequence of operation statements). Demonstrated ability in programming languages such as BASIC.

Must be able to install, operate and repair HVAC equipment and systems and perform skilled work on all applicable equipment and systems. Must have ability to make rough sketches of HVAC installations; read and work from operating manuals, blueprints, plans, drawings and specifications; estimate and labor cost of standard HVAC maintenance and repair work; maintain records and retrieve data related to work performed using manual/computerized record keeping systems.

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Must be able to work unsupervised on a variety of job tasks from simple to complex. Must be able to perform strenuous physical work; utilize mechanical aptitude and motor coordination. Must be able to read and write at a level appropriate to the position; must be able to follow simple and oral instructions.

C. Specialized skills required for this position

Must have the ability to analyze, respond appropriately to emergency situations and to recognize, secure and report unsafe conditions immediately. Must have knowledge of safe working techniques and safety equipment and must be aware of the typical hazards of the workplace as well as the special hazard that may be encountered (biohazards, chemicals, asbestos/lead containing materials).

Must have ability to understand and apply university and departmental policies and procedures.


D. License and Certification Required (I.e., Driver's License and Grade, Certification, etc.)

- Valid California Driver's License.
- EPA approved certification in refrigerant recovery may be required.

VII. PREFERRED QUALIFICATIONS:

VIII. SIGNATURES:

The signature indicates position description is an accurate and correct statement of duties and responsibilities assigned to the position. (Limited to 3 Signers as listed below)

Incumbent's Signature/Acknowledgment		Date
		Oct 16, 2024
Appropriate Administrator Signature		Date
Classification & Compensation Services		Date

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Attachment A

Complete for all positions

To comply with the provisions of the Americans with Disabilities Act, specify the physical, mental, and environmental conditions of the essential functions of the job, please complete the sections below.

Physical Summary: Choose one description out of the categories below that best describes this position.

- Sedentary Work:** Involves mainly sitting. Walking and standing are minimal. Lifting is limited to lightweight objects (10 pounds or less).
- Light Work:** Job involves some lifting of medium weight objects (10-20 pounds) and/or 10% -20% of the job involves standing or walking.
- Medium Work:** Job involves lifting heavy-weight objects (20-40 pounds) and/or 20%-40% of the job involves standing, squatting, kneeling, or walking. May require pushing or pulling objects within the weight limits.
- Heavy Work:** Job involves lifting more than 40 pounds. Approximately half of the incumbent's time will be spent walking, standing, squatting, kneeling, or climbing.

Use the codes below for each of the items which most accurately describe the extent of the specific activity performed in this position.

"C" = constantly or 6-8 hours per day

"O" = occasionally or up to 3 hours per day

"F" = frequently or 3-6 hours per day

"N" = never

Physical Requirements of the Position		Mental Requirements of the Position	
O	Bending (neck)	F	Reading & Comprehending
O	Bending (waist)	F	Writing
O	Climbing	O	Performing Calculations
N	Crawling	C	Communicating Orally
O	Kneeling	F	Reasoning & Analyzing
F	Pushing/Pulling	F	Decision Making
O	Sitting	O	Directing/Coordinating Others:
O	Squatting		Other:
F	Standing	Environmental Working Conditions	
O	Twisting (neck)	F	Exposure to variations in temperature/humidity
O	Twisting (waist)	O	Exposure to chemicals, gases, dust or fumes
F	Walking	F	Operates machinery or drives motorized equipment
F	Handling Objects	O	Exposure to biohazards
F	Manual dexterity	F	Working in normal office environment
O	Reach above/below shoulder	F	Working outside with various weather conditions
O	Using foot controls	O	Uses specialized equipment
	Other:		Other:

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Attachment B

Complete for all positions

Sensitive Position: For current employees who are voluntarily reassigned or reclassified to a sensitive position, a background check is also required. To determine if this position is a sensitive position, please consult with Human Resources and reference the [CSU Background Check Policy](#).

Consideration for designation as a sensitive position per HR Technical Letter 2017-17		
1. Does this position have responsibility for the care, safety, and security of people (including children and minors), animals, and CSU property?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Sexual offender registry check for those who perform work involving regular or direct contact with minor children and those who are identified as mandated reporters of child abuse and neglect under Executive Order 1083 and California Penal Code §11165.7(a).
2. Does this position have access to and responsibility for detailed personally identifiable information about students, faculty, staff, or alumni that is protected, personal, or sensitive?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Access to Level Protected Level 1 Data: (i.e., Passwords, DOB, Credit Card Numbers, SSN's, Medical Data, Law Enforcement Records, etc.) - Link to or incorporate ICSUAM pages.
3. Does this position have access to student records?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	FERPA (Access to student education records)
4. Is the position responding for recording/reporting Clery Data?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Clery Act Basics
5. Does the position have access to protected health information?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	HIPAA
6. Will this position be an active/participating member of the SDSU Emergency Operations Team?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	EOC Member
7. Does this position have responsibility for operating commercial vehicles, machinery or equipment that could pose environmental hazards or cause injury, illness, or death?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Motor Vehicle Records/Licensing Check is required. CA Defensive Driver
8. Does the position influence or make decisions regarding real property, real property acquisitions and/or leaseholds, land use and/or development?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	COI CAT 1
9. Does the position influence or make decisions regarding the purchase of goods, service, or construction work? Note: Having a procurement card is not qualifying if the individual is limited to making directed and supervised purchases from established vendors.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	COI CAT 2

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10. Does the position influence or make decisions regarding the investment of SDSU/CSU funds.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	COI CAT 5
11. Does the position influence or make decisions regarding the sale of campus goods, services, products, or commodities (including agricultural commodities), which are sold by the campus?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	COI CAT 6

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Attachment C

Complete for **MPP Positions Only**

Mental Effort:

Enter frequency of occurrence for all applicable activities using the following key:

1=Never Occurs 2=Seldom Occurs 3=Sometimes Occurs 4=Occurs Often 5=Almost Always Occurs

<u>Planning</u>		<u>Staffing</u>	
	Forecast		Define Roles
	Set Program Goals		Give Input to Position Descriptions
	Determine Budget Allocations		Determine Selection Criteria
	Establish, Implement, Revise Policies		Recruit/Interview/Select
			Orient Staff
<u>Organization</u>		<u>Employee Relations</u>	
	Describe Relationships Between Functions		Initiate Corrective Action
	Define Department/Divisional Structure		Authorize Formal Discipline
	Establish Priorities to Meet Goals		Administer Collective Bargaining Agreements
	Schedule Work for Employees		Prepares/Investigates Grievance Awards and Complaints
	Implement procedures		Formulates/Represents University Position for Formal Grievances/Complaints
	Determine work methods		
	Balance multiple tasks/projects		
<u>Direction/Leadership/Supervision</u>		<u>Performance Evaluations</u>	
	Educate		Determine Performance Standards
	Delegate		Authorize/Approve Awards
	Coordinate		Prepare Performance Evaluations
	Coach/Train/Develop		Observe/Follow-Up on a Daily Basis
	Recommend Formal Training		Correct Work/Behavior Problems
	Motivate		
	Instruct/Demonstrate		
	Schedule Staff/Readjust Schedule		
<u>Organization</u>		<u>Other</u>	
	Describe Relationships Between Functions		
	Define Department/Divisional Structure		
	Establish Priorities to Meet Goals		
	Schedule Work for Employees		
	Establish deadlines		
	Implement procedures		
	Determine work methods		
	Balance multiple tasks/projects		

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Attachment D

Department Organization Chart

Instruction: Please insert an image of your department's organization chart and highlight where this Position Description falls within the chart.

