



# University Staff Position Description Form

Office of Human Resources

This description will be used as a basis for determining classification/skill level and will be maintained as an official record of the duties assigned to this position. Employee participation in the completion of this document is encouraged; however, the appointing authority and supervisor are accountable for establishing the assignment and ensuring the accuracy of this information.

FOR HUMAN RESOURCES USE ONLY:					
APPROVED CLASSIFICATION	CLASS CODE	EEO CAT	RANGE/ GRADE CODE	APP. BY C&C	DATE
Building Service Engineer	6702	10	1	LL	11/1/23

## 1. POSITION INFORMATION

Employee: \_\_\_\_\_ Department: Residential Life: Housing-Facilities Services

Current Classification: Building Service Engineer Working Title: Building Service Engineer

Time Base:  F.T.  P.T. \_\_\_\_\_ %  Other \_\_\_\_\_ FLSA Status:  EX  NE

Position Provides Lead Work Direction To:

Classification: _____	Qty: _____	FTE: _____
Classification: _____	Qty: _____	FTE: _____
Classification: _____	Qty: _____	FTE: _____

Name & Title of Work Lead (if any): \_\_\_\_\_

Name & Title of Appropriate Administrator: Michael Lasman, Assistant Director of Housing Facilities

Name & Title of Dean/Manager (MPP): Tim Bair, Director of Physical Plant & Building Trades

## 2. PRIMARY ACTION BEING REQUESTED (Select One)

Job Posting:  New Position  Replacement Position, former incumbent: Joshua Keyawa & Kevin Wagner

Update Position Description Only:

NOTE: An updated position description requires providing Employee with seven (7) days' advance notice. This updated position description must be endorsed by the Appropriate Administrator before being signed by the Employee. The Employee signs at least seven (7) days' prior to Effective Date.

Effective Date: \_\_\_\_\_

## 3. SIGNATURES

Signatures denote that this position description is an accurate statement of the duties and responsibilities assigned to this position. The person holding this position is considered a "mandated reporter" under the California Child Abuse and Neglect Reporting Act and is required to comply with the requirements set forth in CSU Executive Order 1083 as a condition of employment.

Employee: \_\_\_\_\_ Date: \_\_\_\_\_

Appropriate Administrator: Michael Lasman Date: Nov 6, 2023

Dean/Manager (MPP): Tim Bair Date: Nov 6, 2023

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#### 4. MINIMUM QUALIFICATIONS

Please list only the Minimum Qualifications of the appropriate classification standards for this position. (Depending on the classification, this may be shown in the classification standards as Minimum Qualifications, Entry Qualifications, or Typical Qualifications. (Classification standards can be found at <https://www.calstate.edu/csuo-system/careers/compensation/Pages/Classification-Standards.aspx>.)

##### **Knowledge:**

Work requires thorough knowledge of high and low pressure boilers, and heating, pneumatic, ventilating, air conditioning, refrigeration and other mechanical equipment; thorough knowledge of the methods, tools and materials used in the operation, maintenance and repair of such equipment; general knowledge of ventilation principles, thermal dynamics, and closed water systems; working knowledge of energy management systems including the ability to understand and use system features; and a general knowledge of the applicable state and federal safety codes and regulations pertaining to mechanical and HVAC systems.

##### **Abilities:**

Must be able to install, operate and repair HVAC equipment and systems; demonstrate a high degree of mechanical skill equivalent to journey-level in one or more related trades such as plumbing, pipe fitting, electrical, or air conditioning; read, interpret and work from blueprints, plans, drawings and specifications; make rough sketches; estimate cost, time and materials of mechanical work; maintain records and retrieve data related to work performed using manual and/or computerized record-keeping systems; prepare standard reports; provide instruction to unskilled and semi-skilled assistants; analyze and respond appropriately to emergency situations; read and write at a level appropriate to the position; and perform arithmetic calculations as required by the position.

##### **Experience:**

These abilities normally would be acquired through two years of journey-level experience in the operation, maintenance and repair of boiler, heating, ventilating, refrigeration and air conditioning equipment and systems or the equivalent combination of formal course work in mechanical technology and hands-on experience.

#### 5. KNOWLEDGE, SKILLS, ABILITIES, AND EXPERIENCE

Please list any knowledge, skills, abilities, and experience for this position.

**Required:** Must be comparable to the Minimum Qualifications, appropriate to the skill level of the position, and would allow an incumbent to satisfactorily perform the Essential Functions of the position.

##### **Knowledge /Skills /Abilities**

1. Ability to perform duties in compliance with all safety practices and regulations
2. Ability to perform preventative and planned maintenance
3. Ability to use an energy management system
4. Effective communication skills
5. Effective interpersonal skills with the ability to provide excellent customer service in a diverse working environment
6. Ability to use standard office equipment (e.g. desktop computer), standard office software (e.g. Microsoft Office Suite, Adobe Acrobat Reader), and the Internet
7. Possession of a valid CA Driver's License and maintenance of a good driving record
8. EPA approved "Universal" certification in refrigerant usage
9. Commitment to maintaining a welcoming and inclusive work environment with diverse colleagues and constituents including faculty, students, staff, and members of the community.

##### **Physical Requirements:**

10. Ability to safely move up to 50 pounds in a variety of work environments

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11. Ability to wear personal protective equipment as necessary

**Work Schedule Requirements:**

12. Ability to work irregular work week or shift work, as necessary

**Conditions of employment**

- Ability to pass a background check

Preferred: List any desirable qualifications beyond the Minimum Qualifications and those that are Required that would enhance an incumbent’s ability to perform the work of the position (e.g., additional years of experience, advanced education, certification and/or specialized training).

- 13. Completion of an apprenticeship program leading to journey-level HVAC technician or operating engineer
- 14. Four or more years of journey level experience in the operation, maintenance, and repair of heating, ventilating and air conditioning equipment
- 15. Asbestos abatement certification, or ability to obtain certification

**6. POSITION SUMMARY**

Provide a few short, specific statements, which outline the purpose of the job.

Under general supervision, the Building Service Engineer operates, maintains, repairs and inspects heating, ventilating, air conditioning, and refrigeration equipment and associated water systems; tests, adjusts, and calibrates boiler and air conditioning system mechanical, electrical, and electronic controls; tests and chemically treats boiler, cooling tower, open and closed loop heating and cooling, and swimming pool water systems; maintains, inspects, analyzes and makes emergency repairs to steam and heating and cooling water piping distribution systems; regularly uses features of building automation systems to diagnose and troubleshoot problems in HVAC systems while optimizing energy usage; monitors building automation systems data and makes adjustments as appropriate; performs service calls with a high level of customer satisfaction focus; maintains logs of maintenance and repairs using manual and computerized record-keeping systems; and may instruct and lead semi-skilled or unskilled assistants. Incumbent also repairs and replaces bearings, shafts, seals, rings and electrical wiring, and installs distribution system parts such as: regulators, gauges, valves and pipes, which require the application of journey-level skills in one or more of the applicable trades. Additionally, incumbent may be assigned to alternate work schedules, including weekends.

**7. ESSENTIAL FUNCTIONS OF THE POSITION**

Describe each major responsibility assigned to this position and indicate the percentage of time devoted to each function, as well as the frequency in which each function is performed.

Essential Functions and Marginal Functions should have a combined total of 100% of Time.

% of Time	Frequency (daily, weekly, monthly, etc.)	Essential Functions Only (List in order of importance)
35%	Daily	Responsible for ensuring the safe and proper operation and repair of heating, ventilating, and air conditioning systems, to include: low pressure boilers, electric, and electronic controls, underground and in-building steam and chilled water distribution systems, multi-zone and dual duct air handling systems, pumps, motors, valves and piping.  Operates and maintains the Residence Halls' heating and cooling system. Monitors high pressure steam boiler operation through the use of gauges, sight glasses and a computer control system. Monitors operation of centrifugal chillers with computerized

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30%	Daily	<p>Energy Management System (EMS). Adjusts water levels, flow rates, temperatures, and pressures using computerized and/or manual control of valves, pumps and actuators.</p> <p>Operates, maintains, and repairs direct expansion and chilled water air conditioning systems. Ensures proper operation of a variety of compressors such as: reciprocating, centrifugal, scroll and screw. Recovers and recharges refrigerants on small, high pressure, and low-pressure appliances.</p> <p>Operates, maintains and repairs electric, gas, steam and hot water building heating systems. Installs and repairs heating system components such as: steam traps, relief valves, strainers, heat exchangers, IS valves, thermocouples, fittings and associated piping.</p> <p>Performs preventive and planned maintenance by such means as greasing bearings, changing or cleaning filters and strainers, checking and changing drive belts, observing operating conditions and cleaning and painting of mechanical equipment, and the space housing this equipment.</p> <p>Replaces/repairs valves, piping and other steam and water distribution system components in locations such as underground vaults, during seasonal maintenance.</p> <p>Fabricates copper and steel piping systems through the use of threading and cutting machines. Joins metal together by soldering, brazing, welding and threading using hand, pneumatic and electric tools along with propane, electric, acetylene, and oxy/acetylene torch systems.</p>
25%	Daily	<p>Analyzes building HVAC systems operation with Energy Management System (EMS). Makes adjustments to EMS control parameters as necessary to optimize balance of customer satisfaction, indoor air quality, and energy efficiency. Performs service calls by communicating with the Customer Service center and customers, troubleshooting, and repair work. Generates documentation related to work performed, work in progress, work needed, parts used/needed and hours.</p> <p>Installs and repairs various components of low voltage HVAC electrical systems such as: relays, motors, safety switches, thermostats and associated wiring. Uses manifold gauges, electrical meters, thermometers, leak detectors, and other testing devices to troubleshoot and/or repair split and package refrigeration and air conditioning systems. Uses amp, ohm and mega-ohm meters as well as electrical recorders and compressor analyzers, to troubleshoot HVAC related electrical systems.</p>
5%	Daily	<p>Performs chemical testing of cooling, boiler, condensate and heating water, as related to chemical treatment of heating and cooling systems. Determines necessary adjustments to be made to system by maintaining and repairing chemical feed controllers, pumps and associated equipment.</p> <p>Completes written records pertaining to maintenance programs, monitoring and logging water and energy consumption.</p> <p>Generates documentation related to work performed, work in progress, work needed, parts used/needed and hours.</p> <p>Performs all duties in a safe manner, utilizing: gloves, face shields, eye goggles, air purifying face masks, ear plugs and muffs, and other safety devices as necessary.</p>

Employee Initials:

Date:

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## 8. MARGINAL FUNCTIONS OF THE POSITION

Describe each non-essential duty assigned to this position and indicate the percentage of time devoted to each function, as well as the frequency in which each function is performed.

Essential Functions and Marginal Functions should have a combined total of 100% of Time.

% of Time	Frequency (daily, weekly, monthly, etc.)	Marginal Functions Only (List in order of importance)
5%	Daily	Research, order, and maintain stock of materials as necessary. Performs other related duties as required.

## 9. ADDITIONAL INFORMATION

To enable appropriate classification determination, please elaborate on the information provided in the previous sections by completing the section below.

**9a. Nature and Scope of Authority:** Identify the kinds of decisions made, judgment required, freedom to act, and supervision received (i.e., direct or general). Also indicate if position acts as a lead or supervises others, and explain.

This position reports directly to the Supervising Building Service Engineer. The Building Service Engineer (BSE) uses judgement and makes decisions related to the safe monitoring, troubleshooting, maintaining and repairing of HVAC systems and related equipment. The BSE leads and instructs semi-skilled and un-skilled assistants.

**9b. Problem Solving:** Types of problems encountered; issues, concerns addressed; types of problems incumbent required to refer to supervisor or others.

The BSE must use sound analytical reasoning and logic to correctly identify solutions to a broad range of HVAC related technical problems. Customer requests for service and follow-up are also addressed. Problems that may have a significant financial or customer satisfaction impact are referred to the supervisor and manager.

**9c. Contacts On- and Off-Campus:** Purpose and nature of working relationships with on- and off-campus contacts.

The BSE must communicate with a high level of customer service skill with staff, faculty and students regarding questions or concerns related to HVAC issues. The BSE communicates with vendors for research of materials, and contractors to assist with upcoming or ongoing projects.

## 10. ADA REQUIREMENTS – MUST BE COMPLETED

To comply with the Americans with Disabilities Act (ADA) of 1990, which prohibits discrimination against qualified individuals on the basis of disability, it is necessary to specify the physical, mental, and environmental conditions of the Essential Functions of the job (with or without a reasonable accommodation).

Use these codes to complete the section below: F (frequently), O (occasionally), N (not at all). Do not use “X.”

PHYSICAL		MENTAL		ENVIRONMENTAL	
C	Sit	C	Direct others	F	Is exposed to excessive noise
F	Stand	F	Concentrate	F	Is around moving machinery
F	Walk	F	Analyze	F	Is exposed to marked changes in temperature and/or humidity
F	Have mobility	F	Use reason/logic		

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F	Bend	F	Demonstrate recall	F	Is exposed to dust, fumes, gases, radiation, microwave (circle)
F	Climb	F	Make decisions		
F	Reach	F	Works rapidly	F	Drives motorized equipment
F	Kneel	F	Handle multiple tasks/priorities	F	Works in confined quarters
F	Push/Pull	F	Tolerate variety	F	Works in high places
F	Have gross hand coordination	F	Work with others		Other:
F	Have fine hand coordination		Other:		
F	Hear with background noise				
F	Hear the spoken word				
F	Hear over a phone/other device				
F	See to read fine print				
F	See to read bold print				
F	See to accomplish a task				
F	Talk				
F	Communicate				
C	Lift: <u>35</u> lbs. max				
F	Carry: <u>35</u> lbs. max				
F	Operate equipment				
C	Perform keyboard entry				
	Other:				

**11. FOR INFORMATION TECHNOLOGY POSITIONS ONLY**

**PROJECT COORDINATION/LEAD RESPONSIBILITIES**

Describe on-going project coordination and/or lead responsibilities, if any, including the number and type of positions for which lead direction is provided. Any projects or accountabilities of a temporary nature must include duration of assignment.

**TECHNOLOGY USAGE**

Please list the type of computer and/or technology systems used by this position to perform the work, as well as the associated operating systems, software, and applications used.

Hardware Type	Software Applications Used