DA 281-2 (Special)
1/99

State of Kansas-Department of Administration
KSU DIVISION OF HUMAN RESOURCES

Position Description

Read each heading carefully before proceeding. Make statements simple, brief, and complete. Be certain the form is signed. Supervisors and incumbents are responsible for the completion of this form.

CHECK ONE: ☐ NEW POSITION ☒ EXISTING POSITION (allocated)

PART I - Position Information. Items 1 through 12 to be completed by department

1. Agency Name:
Kansas State University

9. Position Number
W0006731

10. Department ID
36700 60010

2. Employee Name (leave blank if position vacant)

11. Present Class Title (if existing position)
Electronic Control Center Technician

3. Division
Vice President for Administration & Finance

12. Proposed Class Title

4. Section
Division of Facilities

5. Unit
Building Maintenance

6. Location (address where employee works)
City Manhattan
County Riley

7. Type of Appointment (Circle)

(Full time) **Part time** **100%**

School:

Limited Term ending date (if applicable):

8. Regular hours of work: (enter appropriate time)
FROM: 8:00 AM TO: 5:00 PM

HUMAN RESOURCES

13. Allocation Electronic Control Center Technician
Supervisory Status: yes (no) **FLSA Code:** (nonexempt) / exempt

14. **Effective Date:** 7/20/08
15. **By:** [illegible] Approved:

16. Audit(s):
Date: By:
Date: By:

17. Position Review(s)
Date: Date:
Date: Date:

PART II - Organizational Information. To be completed by department head or supervisor of the position

18. a) Briefly describe why this position exists. (Include how the position relates to the purpose, goal, or mission of the unit.)

This position exists to provide expertise in maintaining controls for HVAC systems campus wide, working to help conserve energy by various means, and assisting in the installation and repair of various refrigeration/HVAC systems.

b) If this is a request to reclassify a position, briefly describe the reorganization, reassignment of work, new function added by law or other factors which changed the duties and responsibilities of the position.

19. Who is the supervisor of the incumbent in this position? (Who assigns work, gives directions, answers questions and evaluates.)

Name	Title	Position Number
Joseph E. Zerby	Electronic Control Center Supervisor	W0035793

List other individuals who may provide input for evaluation purposes.

Name	Title	Position Number
John Brown	Physical Plant Supervisor	W0005287
Dale Boggs	Associate Director	W0038442

20. a) How much latitude is employee allowed in completing the work? b) What kinds of instructions, methods and guidelines are given to the employee in this position to help do the work? c) State how and in what detail assignments are made.

a) Work is done under general supervision and reviewed through inspection while in progress and upon completion. Maintenance and upkeep of machinery completed at their discretion.
b) Design specifications, blueprints, schematics, and diagrams are utilized by employee to help do work.
c) Verbal and/or written instructions for most jobs; the amount of detail dependent upon specific job.

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21. Describe the work of this position using this page and/or one additional page only. (Please use the following format to create task statements for actual job duties:)

What is the action being done (use an action verb); to **whom** or **what** is the action directed (object of action); **why** is the action being done (describe the result or outcome expected); ***how** is the action expected to be performed (describe the manner, methods, techniques or procedures in which the task is currently performed). For each task, state: Who reviews it? How often? What is it reviewed for?

Number each task and indicate percent of time and identify each function as essential or marginal by placing an E or M next to the % of time for each task. Essential functions are the primary job duties for which the position was created and that an employee must be able to perform, with or without reasonable accommodation. A marginal function is a peripheral, incidental or minimal part of the position or one that can be performed with assistance or by another individual. **OFFICIAL DETERMINATIONS ARE MADE BY CLASSIFICATION SERVICES.**

*The description of how the work is to be performed does not preclude the consideration of reasonable accommodation(s) for qualified persons with a disability.

No.	%	E or M	
1	40%	E	Make necessary repairs and component replacement on building pneumatic systems. Repair and overhaul building air compressors and associated air dryers. Modify existing building electronic or pneumatic systems when old components become obsolete, requiring updating to presently available units. Use control drawings for troubleshooting, diagnostics, as well as calibration purposes. Troubleshoot and make necessary repairs on DDC controllers, macro-cells and micro-cells, by using a P.O.T., IN-P.O.T., or laptop PC. Understand and repair other electronic control devices, such as electronic flow devices, status devices, sensor devices, relay devices, and differential pressure devices. Troubleshoot controller problems from using DDC control drawings.
2	30%	E	Complete installation and repair of all types of refrigeration equipment, which includes refrigerant lines and components; building air-handling equipment; dampers, bearings, and scientific equipment of all types.
3	10%	E	Develop graphics for the XBSi System using Designer 3.1, as well as assigning points so that controls can be monitored at the control terminals. Perform duties such as downloading files and graphics to remote PCs. Enter all duty cycle, time schedules, and historical and dynamic trends to insure proper energy conservation practices. All duties are performed at a central control monitor and gateway.
4	10%	E	Complete installation and wiring of Energy Management DDC Control Systems. Use DDC control drawings for direction in installing components on air handling equipment, large pumps, chillers, variable frequency drives, damper control, and other various equipment. Run all wires to control computers, then install buss wire communication to central control monitor and gateway. Operate various state vehicles for transportation to job sites and delivery of materials/equipment as needed. Perform asbestos related tasks as required.
5	5%	M	Work involves the performance of the more complex and difficult duties and serving as a resource person to full performance craftsmen to solve highly intricate or complex problems. Suggestions of ways to design or fabricate parts to continue the serviceability of old or obsolete equipment or systems, or advise on situations that require solutions which are deviations from standard procedures. Work may include the on-site direction of specific crafts. Job assignments are received and performed with a high degree on independence.
6	5%	M	Perform any other job related task as required by supervisor, in order to benefit the university, with occasional review by supervisor. All tasks are completed utilizing a broad base of knowledge of the HVAC trade and of controls in particular. The supervisor checks jobs in progress as needed and reviews tasks for satisfactory results.

22. a) **If work involves leadership, supervisory, or management responsibilities, check the statement which best describes the position.**
( ) Lead worker: Assigns, trains, schedules, or oversees work of others.
( ) Supervisor: Plans, staffs, evaluates, and directs work of employees of a work unit.
( ) Manager: Delegates authority to carry out work of a unit to subordinate supervisors or managers.

b) **List the class titles and position numbers of all persons who are directly supervised and evaluated by employee in this position.**

Title	Position Number

23. **Which statement best describes the results of error in action or decision of this employee?**
( ) Minimal property damage, minor injury, minor disruption of the flow of work.
( ) Moderate loss of time, injury, damage, or adverse impact on health and welfare of others.
( ) Major program failure, major property loss, or serious injury or incapacitation.
(X) Loss of life, disruption of operations of a major agency.
Please give examples and describe consequences of action.

1) If not handled properly, the use of toxic and explosive refrigerants such as ammonia and ethane, in confined areas such as buildings with hundreds of occupants, could result in a major catastrophe resulting in the death of an employee and occupants of the building.

2) If not handled safely and correctly, large blowers and equipment can start and stop automatically, and could result in loss of life by getting caught in belts and/or equipment.

24. **For what purpose, with whom and how frequently are contacts made with the public, other employees or officials?**

Daily contact is made with supervisors, co-workers, staff, professors, and department heads to overview problems or to clarify or alert personnel in work area. Daily contact is also made with students on campus and in various buildings.

25. a) **What hazards, risks, or discomforts exist on the job or in the work environment?**

Employee will be exposed to extreme heat, cold, and noise; will be working with electricity from 12 volt DC to 480 volt AC, and toxic and non-toxic refrigerants, including ammonia; will be required to wear full face negative and positive pressure respirators while working in extreme conditions and will be working on fume hoods and exhaust fans used for removal of toxic and non-toxic chemicals and fumes. Working in steam tunnels, working from scaffolding, roofs, and crane baskets. Working in adverse outdoor weather conditions. Will be required to wear protective equipment from exposer to electrical equipment, in accordance with NFPA70E.

b) **Describe any methods, techniques, procedures, or equipment that must be used to ensure safety for equipment, employees, clients, and others.**

Safety training is provided and stressed, proper protective equipment is utilized as required. Must follow proper building procedures, following OSHA, ADA, NFPA, and EPA standards, as well as local safety procedures on a daily basis. Use of hard hats and safety harnesses are required when working in high areas such as roofs and crane baskets. Use of respirator equipment and protective clothing for work with asbestos, refrigerant, ammonia, and toxic chemical tasks. Follow local safety regulations and state and federal laws.

26. List machines or equipment used regularly in the work of this position. Indicate the frequency with which each is used.

DAILY
All types of HVAC equipment
Various state vehicles
EMS computer software
Electrical meters
FAMIS computer software
Electrical safety equipment

DAILY TO WEEKLY
Oxygen acetylene torches
Vacuum pumps
Refrigerant recovery equipment
Refrigeration gauges

PART III - Education, Experience, and Physical Requirements Information

27. MINIMUM REQUIREMENTS as stated in the State of Kansas Class Specification. (Job skills beyond state specifications should be entered in #29.)

Two years of experience in the operations, maintenance, and repair of electronic and pneumatic controls in a central control and monitoring center of a large air conditioning and heating system or similarly complex system. Education may be substituted for experience as determined relevant by the agency.

28. NECESSARY SPECIAL REQUIREMENTS

a) List any licenses, registrations or certifications for this position that are required to perform the essential functions of the position.

Valid drivers license and valid EPA Refrigerant Recovery Certificate with a universal rating required upon employment. Medical certification for respirator use and completion of Class I Asbestos worker training prior to completion of the probationary period. During employment, employee must pass a physical exam by a qualified physician, including chest x-ray and pulmonary capacity functions test to prove the ability to wear a negative and positive pressure respirator.

b) Describe the physical requirements of the job as they relate to essential functions (focus on results, not methods of obtaining results).

Work involves considerable physical exertion to transport items weighing over 50 pounds, unassisted, on a repetitive basis daily.

29. PREFERRED QUALIFICATIONS AND SKILLS

a) List preferred education or experience that may be used to screen applicants.

High school graduate or equivalent with vocational training in refrigeration and air conditioning preferred. Prefer four years experience in refrigeration and air conditioning work including two at the journey level. Prefer journey level experience in electronic control service and repair. Prefer journey level experience in heating systems including electric, gas fired, heat pump, steam, and hot water.

b) List preferred special knowledge, skills and abilities.

Prefer journey level knowledge of laws, regulations, occupational hazards, and standard safety practices as required by OSHA and EPA, as well as materials related to building and mechanical trades. Prefer ability to use standard tools of the trade. Prefer knowledge of and ability to install, maintain, troubleshoot, and repair air-conditioning systems of varying types and sizes ranging from residential size to large tonnage coolers and up to 1,000 ton chillers. Prefer knowledge of all kinds of cooling towers and ability to troubleshoot and create complex wiring diagrams of HVAC systems.

30. BONA FIDE OCCUPATIONAL QUALIFICATION (BFOQ)
State additional qualifications for this position that are necessary as a bona fide occupational qualification (BFOQ).