

# 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

<b>1. Agency Name:</b> Kansas State University	<b>9. Position Number</b> W0006721	<b>10. Department ID</b> 36700 60010
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<b>2. Employee Name (leave blank if position vacant)</b>	<b>11. Present Class Title (if existing position)</b> Refrigeration & A/C Service Technician Senior
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<b>3. Division</b> Vice President for Administration & Finance	<b>12. Proposed Class Title</b>
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**4. Section**  
Division of Facilities

**5. Unit**  
Building Maintenance

<b>6. Location (address where employee works)</b>	
<b>City</b> Manhattan	<b>County</b> 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

H	13. Allocation	Refrigeration & A/C Service Technician Senior	
U	Supervisory Status:	yes / no	FLSA Code: nonexempt / exempt
M			
A			
N			
R	14. Effective Date:	7/21/08	
E	15. By:	Approved:	
S	16. Audit(s):		
O	Date:	By:	
U	Date:	By:	
R			
C	17. Position Review(s)		
E	Date:	Date:	
S	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 highly skilled HVAC services to the campus community to allow for personal comfort in the various buildings at KSU at the advanced/ master level. Must participate in mandatory on-call program, in which 24 hour emergency availability is required.

**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.)**

<b>Name</b> Vacant	<b>Title</b> Facilities Maintenance Supervisor	<b>Position Number</b> W0030942
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**List other individuals who may provide input for evaluation purposes.**

<b>Name</b> John Brown	<b>Title</b> Physical Plant Supervisor	<b>Position Number</b> W0005287
<b>Name</b> Dale Boggs	<b>Title</b> Associate Director	<b>Position Number</b> 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 on a priority basis set forth by the employee, often after consulting with the supervisor. Maintenance and upkeep of machinery is completed at employee 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 is dependent upon the 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

- | <u>No.</u> | <u>%</u> | <u>E or M</u> |  |
|------------|----------|---------------|--|
| 1          | 40%      | E             | Perform daily scheduled preventive maintenance and necessary technical repairs by evaluating, testing, and repairing or replacing electronic and pneumatic controllers and temperature and pressure sensors on nineteen centrifugal, reciprocating, and absorption type industrial plant chillers in campus buildings, Chilled Water Plant, and Power Plant. Also to include associated system parts such as cooling towers, fans, gear boxes, water pumps, and strainers in order to keep the entire system operating efficiently and correctly. Maintain motor switch gears and update controllers. Perform chemical analysis for oil acidity and contaminants and develop procedures to clear up those problems. Complete all pre-season checks and fall shutdown procedures on chillers that do not run year-round.  |
| 2          | 15%      | E             | Perform scheduled maintenance of energy management systems that correlate with many types of refrigeration and air conditioning systems. Must work with personal computers daily; checking alarms and status, changing fan speeds, humidifier set points, temperature set points, and damper positions of equipment to suit changing needs of building occupants. Make necessary repairs and component replacements on all building air dryers. Modify existing building electronic and pneumatic systems when old components become obsolete requiring updating to presently available units. The above work involves the performance of the more complex and difficult duties and serving as a full performance master craftsman as well as a resource person to supervisors and directors to solve highly intricate or complex problems. Make suggestions and design or fabricate parts to continue serviceability of old or obsolete equipment or systems. 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 performed with a high degree of independence. |
| 3          | 5%       | E             | Troubleshoot and repair refrigeration, electrical, electronic, and plumbing components on scientific equipment including, but not limited to, the following: refrigerated centrifuges, more than 250 plant growth chambers, environmental chambers, computer rooms, controlled environment rooms, clean rooms, ultra-low freezers, freeze dryers, and incubators in order to get maximum reliability and constant conditions out of all highly intricate medical and scientific equipment, using toxic and uncommon refrigerants. Coordinate with departments, department heads, and supervisors to establish estimated costs of both time and materials on departmental jobs to ensure department satisfaction and ensure they are informed of equipment problems and down time.  |
| 4          | 5%       | E             | Perform necessary repairs on ammonia refrigerated systems for use in dairy processing and storage along with walk-in freezers and coolers for use in food product storage with the intent of establishing safe, reliable systems. Use of proper fitted respirator is required. Work is reviewed by the supervisor occasionally for results.  |
| 5          | 5%       | E             | Perform preventive maintenance and all repairs on central heating and air conditioning systems, exhaust fans, and fume hoods. This includes all controls (electrical and electronic), along with the installation of new units and controls, to provide comfort control for all building occupants, animals, and scientific equipment. Make necessary repairs on commercial and residential equipment including; 1000 window air conditioners, 248 water drinking stations, ice makers, refrigerators, and freezers. Troubleshoot and make all necessary repairs on air handling units ranging in size from minimal to 150 horsepower, in order to keep a continuous supply of conditioned air to research labs and occupants. Maintain proper air balance of entire building and zones. Performs asbestos related projects as required. Work is reviewed occasionally by supervisor for compliance with building codes and standards.   |
| 6          | 25%      | E             | Troubleshoot and repair or replace electronic control boards, temperature and pressure sensors, and other electronic and safety controls found on modern air conditioning equipment including, but not limited to, DX condenser units, heat pumps, both water cooled and air to air, furnaces, and air handlers. Troubleshoot, program, and set-up variable frequency drive units. Work also involves troubleshooting, diagnosing, and in some instances, repairing plumbing and electrical problems on various equipment throughout campus. As this individual is usually the first person on site, he or she must make a determination on which shops need to be involved in repair of equipment.  |
| 7          | 5%       | E             | Perform any other job related tasks as required by the supervisor, in order to benefit the University, with occasional reviews by the supervisor. In the absence of the supervisor, employee will perform the duties of Assistant Shop Supervisor.   |

Tasks are completed using extensive knowledge of the HVAC trade and are reviewed by the supervisor for satisfactory results while in progress or as needed.

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
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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 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, coworkers, 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, crane baskets. Working in adverse outdoor weather conditions. Will be required to wear protective equipment from exposure 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.

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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

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**PART III - Education, Experience, and Physical Requirements Information**

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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 refrigeration-air/conditioning repair work. Education may be substituted for experience as determined relevant by the agency.

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**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 and completion of Class I Asbestos worker certification 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.

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**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.

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**30. BONA FIDE OCCUPATIONAL QUALIFICATION (BFOQ)**

State additional qualifications for this position that are necessary as a bona fide occupational qualification (BFOQ).

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