

Chiller Technician I

Position Details

Class Code: 7401

Job Family: Skilled Trades/Technicians

Classification: Support Professional

Terms of Employment: [Pay Grade 56 on the Support Professional Salary Schedule](#)

FLSA STATUS: NON-EXEMPT

Position Summary

Under general supervision, installs, repairs, overhauls, and maintains residential/light commercial heating, ventilation, air conditioning, refrigeration (HVACR) equipment, chillers, and their ancillary equipment.

Essential Duties and Responsibilities

The list of Essential Duties and Responsibilities is not exhaustive and may be supplemented.

1. Installs, repairs, and maintains residential/light commercial HVACR equipment, including split DX, multi-zone, variable air volume (VAV) packaged systems, and their operating controls.
2. Maintains, troubleshoots, and repairs commercial chillers and their ancillary equipment (i.e., cooling towers, air handlers, motors, pumps, variable frequency drives, instrumentation, associated controls, etc.) including tear-downs and rebuilds under supervision of a Chiller Technician II.
3. Inspects chillers and ancillary equipment using instruments (i.e., thermometers, pressure gauges, multimeters, etc.) to record parameters such as Delta P, Delta T, bearing temperatures, oil pressure, and motor amperage, to determine condenser, evaporator, and compressor condition/performance.

4. Performs leak tests when required. Uses oil-dry nitrogen to fill chillers to manufacturer's specifications, drains condenser/evaporator shells, calibrates pressure gauges, and records pressure levels.
 5. Locates leaks using the bubble test or a halogen vapor detector. Applies liquid detergent to seals, gaskets, fitting connections, and motor terminals, or pressurizes with oil-dry nitrogen and 5% tracer gas.
 6. Performs safety/interlock tests and loop tuning (i.e., high/low refrigerant cut-out set points, emergency shutdown procedures, and failure/back-up system operation.)
 7. Assists Chiller Technician II in:
 - Repairs requiring chiller disassembly
 - Performing eddy current tests to evaluate copper heat exchanger tubes
 - Verifying proper coordination between individual set points, reset strategies
 8. Verifies the following:
 - Proper programming/functioning of all safeties, interlocks, and alarms
 - Proper refrigerant monitoring/evaluation system operations
 - Proper installation/operation of isolation valves
 - Appropriate stage up/down of chiller and primary water pumps
 - Proper reset parameters per design sequence of operations
 - Proper control sequence and component integration (i.e., set points/reset strategies, start-up/shutdown procedures, charging/recovering Freon from chillers, and time delays)
 - Chilled water supply reset does not adversely affect supply air dehumidification
 9. Conforms to safety standards, as prescribed.
 10. Performs other tasks related to the position, as assigned.
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Distinguishing Characteristics

Installs, maintains, and repairs heating, air conditioning, and refrigeration equipment operating at low/high voltages and pressures.

Knowledge, Skills, and Abilities (Position Expectations)

1. Knowledge of HVACR trade practices and procedures.
2. Knowledge of building construction and materials.

3. Knowledge of Environmental Protection Agency (EPA) Clean Air Act practices/procedures.
4. Knowledge of electrical codes and practices.
5. Knowledge of complex electrical circuit troubleshooting.
6. Knowledge of Turbocor compressors, including diagnostics/reset procedures.
7. Knowledge of centrifugal, screw, and reciprocating compressors, including service, diagnostics, maintenance, and repair procedures.
8. Knowledge of chiller controls and operating theory.
9. Knowledge of Variable Frequency Drive (VFD) technology.
10. Knowledge of mechanical plant hydronic systems.
11. Knowledge of cooling tower construction and operations.
12. Ability to recognize, understand, interpret, and apply all local, state, and national codes/regulations, including Occupational Safety and Health Administration (OSHA), International Building Codes (IBC), Uniform Building Code (UBC), Uniform Mechanical Code (UMC), Uniform Plumbing Code (UPC), National Electrical Code (NEC), National Fire Protection Association (NFPA), American Society of Heating, Refrigeration, and Air-Conditioning Engineers (ASHRAE), EPA, etc.
13. Ability to read and interpret blueprints, schematics, wiring/logic diagrams, specifications, and plans.
14. Ability to learn/apply operating, safety, and work procedures.
15. Ability to meet predetermined deadlines.
16. Ability to communicate effectively, both verbally and in writing.
17. Ability to interpret written and verbal instructions.
18. Ability to plan and organize work.
19. Ability to safely move and relocate heavy objects.
20. Ability to perform strenuous, physical work.
21. Ability to operate hand/power tools and equipment.
22. Ability to distinguish color-coded wires.
23. Ability to work flexible hours/shifts.
24. Ability to work in confined areas.
25. Ability to withstand heights and perform work safely.
26. Ability to work cooperatively with employees, vendors, and the public.
27. Ability to recognize/report hazards and apply safe work methods.
28. Ability to work with computers and install programs.
29. Ability to effectively communicate with custodians, office personnel, administrators, and dispatchers.
30. Ability to work under stressful, urgent conditions.
31. Ability to locate and repair Freon leaks in HVACR equipment.

32. Possess physical and mental stamina commensurate with the responsibilities of the position.
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Position Requirements

Education, Training, and Experience

1. High school graduation or other equivalent (i.e., General Education Development (GED), foreign equivalency, etc.)
2. Journeyman HVAC Mechanic card, and two (2) years' experience as a journeyman HVACR mechanic; or,
Five (5) years' experience as an HVACR technician; or,
A combination of HVACR technical training and experience (minimum four (4) years' HVACR experience) equivalent to five (5) years.

Licenses and Certifications

1. A valid driver's license that allows the applicant/employee to legally operate a motor vehicle in Nevada. License must be maintained for duration of assignment.
2. Copy of driving history (dated within six (6) months from the date printed) issued by the Department of Motor Vehicles (DMV) at time of application or Qualified Selection Pool (QSP) placement and at time of interview prior to final selection.
3. Certification as a Universal Refrigerant Handler according to Title 40 of Code of Federal Regulations (CFR) part 82, subpart F. Certification must be maintained for duration of assignment.
4. Clark County School District forklift certification. If certificate is not in possession at time of application or QSP request, it must be obtained within five (5) months of hire into position. Certification must be maintained for duration of assignment.

Preferred Qualifications

Successful completion of an approved off-site training course (i.e., Johnson Controls, Dakin McQuay, Entech Sales and Service, Trane, Smardt, Multistack, York, etc.) with a curriculum including operation theory, internal component/control system descriptions, and troubleshooting.

Document(s) Required at Time of Application

1. High school transcript or other equivalent (i.e., GED, foreign equivalency, etc.)
2. Journeyman certificate, if applicable.

3. Copy of a valid driver's license that allows the applicant/employee to legally operate a motor vehicle in Nevada.
 4. Current copy of driving history (dated within six (6) months from the date printed) issued by the DMV.
 5. Certification as a Universal Refrigerant Handler according to Title 40 CFR part 82, subpart F.
 6. District-issued forklift certificate, if applicable.
 7. Specific documented evidence of training and experience to satisfy qualifications.
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Examples of Assigned Work Areas

District facilities - schools (i.e., classrooms, cafeterias, offices, boiler rooms, facility rooftops, etc.), construction sites, etc.

Work Environment

Strength

Medium/heavy - exert force of 50-100 lbs., occasionally; 25-50 lbs., frequently; up to 10-20 lbs., constantly.

Physical Demand

Frequent sitting, standing, walking, pushing, pulling, stooping, kneeling, crouching, reaching, handling, and repetitive fine motor activities. Hearing and speech to communicate in person, via video conference and computers, or over the telephone. Mobility to work in a typical office setting and use standard office equipment. Stamina to remain seated and maintain concentration for an extended period of time. Vision: Frequent near acuity, occasional far acuity, and color vision. Vision to read printed and online materials, a Video Display Terminal (VDT) screen, or other monitoring devices.

Environmental Conditions

Varies from climate-controlled office settings to work outdoors with temperatures ranging from mild/moderate to extreme cold/heat. Exposure to noise levels ranging from moderate to loud for occasional to frequent time periods.

Hazards

Frequent electrical shock hazards, furniture, playground/office equipment, communicable diseases, chemicals and fumes (as related to specific assignment), and

power/hand-operated equipment and machinery (as related to specific assignment.)

Examples of Equipment/Supplies Used to Perform Tasks

District-issued/personal vehicles, ladders, analog/digital temperature analyzers, eye/hearing protection equipment, electronic refrigerant leak detectors, pressure/vacuum pumps, oxy-acetylene welding/cutting equipment, megohmmeters, analog and digital volt ohm/amp meters, pneumatic calibration gauge kits, motorized forklifts, chain hoists, refrigerant reclamation equipment, handheld radios, hand/power tools, etc.

AA/EOE Statement

The Clark County School District is proud to be an equal opportunity employer. The Clark County School District is committed to providing all applicants and employees equal employment opportunities without regard to race, color, religion, sex, gender identity or expression, sexual orientation, national origin, genetics, disability, age, military status, or other characteristics protected by applicable law. Here at Clark County School District, we are a diverse group of people who honor the differences that drive innovative solutions to meet the needs of our students and employees. We believe that through a culture of inclusivity, we have the power to reflect the community we serve.

Job Revision Information

- Revised: 08/07/23
- Created: 02/06/13