

# MORGAN STATE UNIVERSITY

## JOB SPECIFICATION



### **TEMPERATURE CONTROLS TECHNICIAN I**

Class Code: N1146  
Pay Range: 13

FLSA Code: N/E (Non-Exempt)

#### **JOB SUMMARY**

Under general supervision, installs, services, repairs, inspects, tests and balances industrial and commercial heating, cooling, ventilation systems and building automation systems. Responsibilities include the testing and servicing of electronic temperature controls system using pre-programmed system software.

#### **PRIMARY DUTIES**

- Diagnoses, maintains, and performs service and repairs to building automation systems.
- Tests various functions of a building automation system using a laptop work station and front end type computers.
- Reads and interprets computer programming code pertaining to building automation and temperature controls systems. Identifies programming problems and may make limited programming corrections when necessary.
- Understands and interprets wiring, wiring terminations in various field panels, data gathering panels, remote processing equipment and computer equipment.
- Studies and interprets system blueprints, specifications, and performance data to determine configuration and purpose of system components, such as electronic and pneumatic controls, motors, pumps, fans, switches, ducts, or pipes.
- Inspects system to verify compliance with plans and specifications and to detect malfunctions in component parts. Adjusts controls to recommended settings.
- Tests performance of air and hydronic systems using specialized tools and test equipment such as pitot tube, manometer, anemometer, velometer, tachometer, psychrometer, and thermometer, to isolate problems and determine adjustments.

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- Dismantles malfunctioning systems and tests components using electrical, electronic, mechanical, and pneumatic testing equipment. Replaces, repairs, and/or adjusts defective components. Reassembles systems according to specifications.
- Connects motors, compressors, temperature controls, humidity controls, and circulating-ventilation fans to control panels and connects control panels to power source.
- Cuts and threads pipe; cuts and bends tubing to correct length and shape. Joins tubing and pipe to various functional components; solders joints; tests joints and connections for leaks.
- Observes pressure and vacuum gauges and adjusts controls to ensure efficient operation. Opens and closes dampers in system duct work or adjusts flow valves in piping to balance system.
- May fabricate and install sheet metal work, insulate shell, and cabinets of systems; performs welding, brazing, silfoss, and soldering.
- May install wiring to connect components to electrical power sources.
- Prepares logs and reports reflecting daily operations and project status.
- Provides guidance and training to other maintenance personnel. May have lead responsibility for special projects.
- Operates and maintains tools and equipment of the temperature controls trade. Cleans work area upon completion of project.

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#### **MINIMUM QUALIFICATIONS**

**EDUCATION:** High School Diploma or GED.

**EXPERIENCE:** Six years progressively responsible experience in the temperature controls trade.

#### **REQUIRED KNOWLEDGE/SKILLS/ABILITIES:**

General knowledge of the principles of temperature control systems; of the practices and techniques used in the installation, repair and maintenance of temperature control systems. Working knowledge of OSHA regulations related to the temperature controls trade; of basic mathematics including area, volume, and weights and the practical application of fractions, percentages, ratios, and proportions. Skill in the use and maintenance of the tools and equipment of the trade; in executing basic commands on a computer; in welding, brazing, soldering, and silfoss; skill in repairing and servicing temperature control systems. Ability to read and interpret blueprints, schematics, drawings, and specifications; to read and understand manufacturer's manuals and recommendations regarding scheduled and preventive maintenance, servicing, and system operation; to prepare reports and summaries; communicate effectively both orally and in writing; to provide guidance and training to others; to work in, on, around, over, and under fixed equipment and machinery; to work at heights up to 35 feet; to manipulate heavy equipment, tools, and supplies and/or exert force up to 50 lbs.; to concurrently manipulate multiple controls on machinery or equipment; to work in hazardous or irritating environments, confined spaces, and adverse weather or temperature conditions; to wear and work in personal protective equipment.

#### **OTHER:**

Except for qualifications established by law, additional related experience and formal education in which one has gained the knowledge, skills, and abilities required for full performance of the work of the job class may be substituted for the education or experience requirement on a year-for-year basis with 30 college credits being equivalent to one year of experience.

#### **CONDITIONS OF EMPLOYMENT:**

Candidates selected for employment may be subject to medical inquiries and/or medical examinations to determine ability to perform the job. Valid Maryland Non-commercial Class C or equivalent driver's license may be required





