

TOMPKINS COUNTY CIVIL SERVICE EXAMINATION

Inclusion Through Diversity



OPEN TO THE PUBLIC

Tompkins County Department of Human Resources Office
125 E. Court Street
Ithaca, NY 14850
(607) 274-5526

Tompkins County is an Equal Opportunity/Affirmative Action employer. Minorities and women are encouraged to apply

TITLE: HVAC Systems Technician

EXAM NO: 65113

SALARY: \$25.94 per hour - 2020 Hire Rate

EXAM DATE: 02/29/20

ISSUE DATE: 01/13/20

THE FINAL DATE TO FILE APPLICATIONS: 01/28/20

DATE THAT THIS ANNOUNCEMENT SHOULD BE REMOVED FROM POSTING: 03/01/20

RESIDENCY WAIVED

THE USE OF A QUIET HAND HELD CALCULATOR IS RECOMMENDED FOR THIS EXAMINATION.

LOCATION OF POSITION/VACANCIES:

There is currently one vacancy in the title of HVAC Systems Technician located at the Tompkins County Facilities Department. The eligible list resulting from this open competitive examination may be used to fill any full-time, part-time or temporary vacancies that may occur during the life of the eligible list.

MINIMUM QUALIFICATIONS:

- a) Graduation from a regionally accredited or New York State registered two-year college, university, or technical school with an Associate's Degree or certificate in air-conditioning, heating, and refrigeration technology or a closely related field and five (5) years of full-time paid experience in the installation, maintenance, repair, and operation of complex commercial, industrial, and/or institutional HVAC, plumbing, electrical, and controls systems, six months of which must have been in a supervisory capacity; OR
- b) Graduation from high school or possession of a high school equivalency diploma plus completion of an apprentice program and possession of journeyman certification, and a minimum of seven (7) years of full-time paid experience in the installation, maintenance, repair, and operation of complex commercial, industrial, and/or institutional HVAC, plumbing, electrical, and controls systems, six months of which must have been in a supervisory capacity; OR
- c) Any combination of training and experience equal to or greater than that described in (a) and (b) above as determined by the Commissioner of Personnel.

SPECIAL REQUIREMENTS:

The applicant will possess a valid NYS Driver's License with a good driving record at the time of application and maintain such license for the duration of employment.

Candidate should possess a record of on-going training and a Universal EPA CFC certification at time of appointment.

Possession of Boiler Certificate within one year of appointment.

NOTE: Five years of hands-on experience in the HVAC field will be considered equivalent to the journey level of experience specified in (b) above. This means that an applicant who does not have Journey level certification must have at least 12 years of experience in the field, with at least six months of the experience being supervisory.

DISTINGUISHING FEATURES OF THE CLASS:

This is a highly skilled technical service position in which the incumbent installs, repairs, maintains, and operates all HVAC, plumbing, controls, electrical, and related systems located in County-owned buildings to insure efficient and reliable operation. Employees of this class work on minor or major repairs, installations and maintenance projects. The work is performed under the general supervision of the Assistant Facilities Manager with leeway allowed for independent judgment and decision making. Direct supervision may be exercised over the work of maintenance personnel, cleaning personnel, laborers, contractors, or others in the accomplishment of mechanical, plumbing, and/or control systems projects. The incumbent will perform other maintenance-related work as required.

TYPICAL WORK ACTIVITIES:

- Installs, maintains, repairs, troubleshoots, and/or operates boilers, chillers, cooling towers, air conditioning systems, air handling systems, heat pumps, variable air volume systems, ventilation systems, ductwork, heat exchangers, air compressors, motors, pumps, control systems (pneumatic & direct digital control), computer hardware for control systems and all other associated HVAC equipment and components;
- Installs, maintains, repairs, troubleshoots plumbing systems including, but not limited to, storm water, sanitary drainage, water supply, and natural gas piping systems; plumbing fixtures, automatic sprinkler systems, backflow prevention devices, and other associated systems;
- May install, maintain, repair, and troubleshoot a variety of electrical equipment including, but not limited to, generators, switchboards, panelboards, disconnects, signal equipment, storage battery systems, lighting circuits, lighting fixtures, and associated equipment;
- Repairs steam, water, glycol, and refrigerant leaks on piping, valves, fittings, coils, etc.;
- Evacuates and recharges refrigerant in HVAC equipment;
- Monitors Building Automation System (BAS) control stations, responds to alarms, and revises BAS controls points as needed;
- Updates, and maintains computerized maintenance management system (CMMS) for all systems and equipment under the employee's charge;
- Commissions HVAC, plumbing, controls, and other building related systems prior to occupancy;
- Calibrates and adjusts pump controls, thermostats, sensors, damper motors, actuators, energy management panels, belts, and motors to adequately maintain building comfort levels throughout the heating and cooling seasons;
- Performs preventive maintenance to HVAC systems and auxiliary equipment by lubricating, changing oil, filters, belts, bearings, couplings, etc.;
- Responds to maintenance work requests and customer complaints and inquiries;
- Investigates and recommends new techniques for installations and repairs;
- Identifies, suggests, and implements energy conservation measures;
- Tests and treats water used in air conditioning and boiler systems in order to prevent growth of fungi and bacteria, and control corrosion;
- Unclogs sinks, toilets, floor drains, roof vents, and piping using drain cleaning machines;
- Maintains appropriate records, reports, operating logs, and documents for all mechanical, plumbing, and controls equipment and systems under the employee's charge;
- Interprets mechanical and electrical schematics as needed.
- Assists in planning and scheduling major preventive maintenance projects and repairs for building mechanical, plumbing, electrical, and control systems and equipment;
- Assists in planning, coordinating, or supervising the work of maintenance or cleaning personnel, mechanical or plumbing contractors, or other trades when required in the completion of projects under the employee's charge;
- Assists in supervising and training apprentices when required;
- Assists in conducting, and/or oversees training activities concerning preventive maintenance, and HVAC, plumbing, and controls equipment operation & maintenance;

- Assists in conducting periodic inspection of the condition of building mechanical, plumbing, controls, and electrical systems to ascertain maintenance needs and make recommendations for capital improvement projects and/or major repair, replacement, or renovation projects;
- Assists in the preparation of work schedules and estimates of cost, material, equipment, and resources for minor and major installation, maintenance, and repair projects for approval by Assistant Manager
- Assists in providing information on maintenance work to be performed and may assist in the preparation of an annual budget for maintenance activities related to mechanical, plumbing, and control systems;
- Balances water and air systems;
- Acquires and maintains licenses or special knowledge to maintain specialized equipment as required;
- Performs on-call duties as needed, responding to system emergencies after hours and on weekends;
- Required to access crawl spaces, attics, mechanical rooms, tunnels, pits, sub basements, and confined and isolated areas;
- Maintains hand tools and other diagnostic equipment needed to perform job duties;
- Maintains shop, tools, and parts inventory and makes needs known to appropriate staff;
- May operate equipment for snow removal and grounds maintenance;
- Performs other duties and responsibilities as assigned;

KNOWLEDGE, SKILLS, ABILITIES, AND PERSONAL CHARACTERISTICS:

- Thorough knowledge of the installation, repair, maintenance, and operation of HVAC, plumbing, controls, and related systems;
- Thorough knowledge of the principles, practices, terminology, and safety precautions used in the operation and maintenance of large complex HVAC and plumbing systems, auxiliary equipment and controls;
- Good knowledge of the methods, materials, and diagnostic tools and equipment used in the operation, maintenance, and testing of large complex HVAC and plumbing systems, auxiliary equipment and controls;
- Good knowledge of refrigerant usage and safe storage practices;
- Good knowledge of the practices, tools, and terminology of the electrical, carpentry, and painting trades;
- Working knowledge of code, life safety, and indoor air quality issues as it relates to HVAC and plumbing work;
- Working knowledge of CMMS, and BAS applications;
- Ability to analyze, diagnose, troubleshoot, and problem solve complex technical problems, and develop solutions to problems as they arise;
- Ability to effectively service multiple sites and projects concurrently;
- Ability to plan, coordinate, and supervise the works of others;
- Ability to re-prioritize workload to accommodate schedules and other emergencies;
- Ability to understand and carry out oral and written directions;
- Ability to read and interpret technical manuals, wiring and piping schematics, mechanical and architectural plans, and specifications;
- Ability to work cooperatively and effectively with management and staff of the various county departments, service providers, vendors, and to deal with service requests courteously, tactfully, and professionally;
- Willingness to respond to emergencies;
- Ability to use video display terminals to manage and update building operating systems (i.e., BAS);
- Ability to develop and maintain cost, inventory, maintenance, equipment, and work order records using computer programs (i.e., Excel, Datastream MP2);
- Ability to work under adverse conditions - risk exposure to asbestos, toxic vapors, heat, cold, height, and accumulated dust;
- Dependability, initiative, resourcefulness, and good judgment are required;
- Physical condition commensurate with the demands of the position (i.e., ability to lift 70 lbs.);
- Ability to ascend and descend heights (i.e., climb stairs and ladders, personnel lifts, etc.) and have agility and freedom of movement;
- Ability to move easily in confined spaces. Must be able to wear a respirator;
- Ability to add, subtract, multiply, and divide as used in mathematical formulas;
- Possess strong customer service skills;
- Possess a working knowledge of computers;

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COMPLETE SCOPE OF THE EXAMINATION AND EXPANDED SUBTEST DESCRIPTIONS:

Operation, maintenance, and repair of pumps, motors, valves, and mechanical and electrical equipment

These questions test for knowledge of the principles and practices involved in the operation, maintenance, and up-keep of various types of mechanical and electrical equipment, including pumps, valves, electric motors, and similar types of equipment.

Reading and interpretation of plans and specifications

These questions test for the ability to read and interpret typical plans, layouts, diagrams, and technical specifications related to mechanical or electrical equipment and systems.

Tools of the trade (mechanical)

These questions test for knowledge of the tools, instruments, and equipment typically used in the mechanical trades, including the proper and safe use of this equipment.

Principles and operation of heating, ventilating, and air-conditioning equipment

These questions test for knowledge of the basic principles, practices, and techniques necessary for the correct operation and maintenance of heating, ventilating, and air-conditioning systems and equipment, and may include such areas as air supply and exhaust systems, ventilation system requirements, operation and maintenance of heating systems, and troubleshooting and maintaining air-conditioning systems.

Supervision

These questions test for knowledge of the principles and practices employed in planning, organizing, and controlling the activities of a work unit toward predetermined objectives. The concepts covered, usually in a situational question format, include such topics as assigning and reviewing work; evaluating performance; maintaining work standards; motivating and developing subordinates; implementing procedural change; increasing efficiency; and dealing with problems of absenteeism, morale, and discipline.

Test guide:

The New York State Department of Civil Service has not prepared a test guide for this examination. However, candidates may find information in the publication 'General Guide to Written Tests' helpful in preparing for this test. This publication is available on line at: <https://www.cs.ny.gov/testing/testguides.cfm>.

FURTHER INFORMATION AND INSTRUCTIONS

Falsification of any part of the "Application for Employment" will result in disqualification.

Accepted candidates will be notified when and where to appear for the examination. If you do not receive your notice to appear at least three days before the date of the written examination, call Tompkins County Department of Human Resources at 274-5526. If an application is disapproved, due notice will be sent. This department does not make formal acknowledgment of the receipt of an application or take responsibility for non-delivery or postal delay.

Applicants must answer every question on the application form and make sure that the application is complete in all respects. Incomplete applications will be disapproved.

ACTIVE MILITARY PERSONNEL, VETERANS OR DISABLED VETERANS desiring to claim additional credit will request the Veterans Credits application form, at any time between the date of application for examination(s) and the date of the establishment of the resulting eligible list. You must meet the requirements set by NYS for these credits and they may be used only once. **YOU MAY NOT CLAIM ADDITIONAL CREDITS AFTER THE ELIGIBLE LIST HAS BEEN ESTABLISHED. IT IS THE CANDIDATE'S RESPONSIBILITY TO REQUEST THE VETERANS CREDIT APPLICATION FORMS AND TO SUBMIT THESE FORMS AND ANY SUPPORTING PAPERWORK BEFORE THE ELIGIBLE LIST IS ESTABLISHED.**

Tompkins County's written examinations are prepared and rated by the New York State Department of Civil Service in accordance with Section 23-2 of Civil Service Law. The provisions of the New York State Civil Service Rules and Regulations, which deal with the rating and review of the examinations apply.

The duration of the eligible lists may be fixed for a minimum of one and a maximum of four years and may be extended beyond four years if there has been a restriction against the filling of vacancies in that title.

The candidates must complete a separate "Application for Employment" for each open-competitive and/or promotional examination that the candidate is eligible to take.

All experience required meeting the acceptable training and experience is full-time experience. (Part-time experience will be credited on a prorated basis).

Appointment from an eligible list must be made from the top three candidates willing to accept the appointment.

Tompkins County is an Equal Opportunity Employer. As part of its efforts to provide employment opportunities to the physically handicapped, Tompkins County Civil Service has adopted a rule permitting the employment of qualified physically handicapped persons without competitive examination (pursuant to Section 55 of Civil Service Law). If you meet the minimum qualifications for this position and wish to know more about this rule, please contact the Tompkins County Department of Human Resources Office.

Unless otherwise notified, candidates are permitted to use quiet, hand-held, and solar or battery powered calculators. Devices with Typewriter Keyboards, Spell Checkers, Personal Digital Assistants, Address Books, Language Translators, Dictionaries or any similar devices are prohibited. You may not bring books or other reference materials.

CROSS-FILING - APPLYING FOR CIVIL SERVICE EXAMINATIONS IN MULTIPLE JURISDICTIONS WHEN EXAMINATIONS ARE SCHEDULED ON THE SAME DATE: When applying for examinations across multiple jurisdictions - all of which are scheduled on the same day - you must submit a Tompkins County Cross-Filing Form. This form must be submitted no later than 4:30 PM on the final filing date of the examination. On this form, list each examination that you are taking and then tell us where you would like to sit. The purpose is to ensure that all of the test materials for the various examinations that you are taking will be available in one location. If you do not provide the cross-filing form to us by the final filing date, we cannot ensure that we can accommodate your desire to cross-file. If any of the examinations are State level examinations, you must sit at the State test center. You will still need to complete the Tompkins County cross-filing form. If sitting at the State site, the State will notify you of when and where to report for your examination(s) and you should bring all admittance letters to the State site. If you are not taking a State examination, bring all admittance letters to your chosen testing site. If you have any question please call Tompkins County Department of Human Resources Department (607) 274-5526. The Cross File form is located at <http://www.tompkins-co.org/personnel/CivilSrvForms/index.html>

FOR RELIGIOUS ACCOMMODATION AND HANDICAPPED PERSONS: If special arrangements for testing are required, please indicate this on your application.

ALL CANDIDATES FOR EMPLOYMENT FOR POSITIONS IN SCHOOL DISTRICTS AND BOCES GOVERNED BY TOMPKINS COUNTY CIVIL SERVICE MAY HAVE THE FOLLOWING SPECIAL REQUIREMENT. PER CHAPTER 180 OF THE LAWS OF 2000, AND BY REGULATIONS OF THE COMMISSIONER OF EDUCATION, TO BE EMPLOYED IN A POSITION DESIGNATED BY A SCHOOL DISTRICT OR BOCES AS INVOLVING DIRECT CONTACT WITH STUDENTS, A CLEARANCE FOR EMPLOYMENT FROM THE STATE EDUCATION DEPARTMENT IS REQUIRED.

In conformance with Section 85-a of the Civil Service Law, children of firefighters and police officers killed in the line of duties shall be entitled to receive an additional ten points in a competitive examination for original appointment in the same municipality in which his or her parent has served. If you are qualified to participate in this examination and are a child of firefighter or police officer killed in the line of duties in this municipality, please inform this office of this matter when you submit your application for examination. A candidate claiming such credit has a minimum of two months from the application deadline to provide the necessary documentation to verify additional credit eligibility. However, no credit may be added after the eligible list has been established.

BACKGROUND INVESTIGATION: Applicants may be required to undergo a State and national criminal history background investigation, which will include a fingerprint check, to determine suitability for appointment. Failure to meet the standards for the background investigation may result in disqualification.

TOMPKINS COUNTY PERSONNEL DEPARTMENT, 125 EAST COURT STREET, ITHACA, NY 14850