Job Details

Building Control System Technician

Job ID #: 2131  
Job Category: Technical  
Position Type: Full Time - Regular  
Department: EU-Energy  Utilities Division  
FLSA: Non Exempt

Why Work at BNL?

Brookhaven National Laboratory (www.bnl.gov) delivers discovery science and transformative technology to power and secure the nation’s future. Brookhaven Lab is a multidisciplinary laboratory with seven Nobel Prize-winning discoveries, 37 R&D 100 Awards, and more than 70 years of pioneering research. The Lab is primarily supported by the U.S. Department of Energy’s (DOE) Office of Science. Brookhaven Science Associates (BSA) operates and manages the Laboratory for DOE. BSA is a partnership between Battelle and The Research Foundation for the State University of New York on behalf of Stony Brook University.

Organizational Overview

The Energy & Utilities Division (EU), within the Facilities & Operations Directorate (F&O), oversees BNL’s utility systems, utility plants, and energy management programs which include sustainability, conservation, obtaining economical electric power and fuel supplies for BNL.

This position is responsible for the coordinating the maintenance, troubleshooting, monitoring, programming and enhancement of BNL’s site-wide Energy Management Control System (EMCS), Laboratory controls and related systems. The EMCS and Laboratory controls are microprocessor based distributed automation systems for controlling and monitoring building heating, cooling, air-conditioning, laboratory systems, lighting, metering, and other miscellaneous and specialized controls. There are currently over 2,400 primary controllers and 22,000 hard-wired points in 135 buildings with over 3 million square feet. The position reports directly to the EU Energy Management Manager.

Position Description
Essential Duties and Responsibilities:

- Maintains daily operation, upgrades and troubleshoots control systems.
- Monitors daily control system operation, alarms, communications problems, component operation, and identifies areas that require further investigation and correction.
- Coordinates requests for control system expansion or modifications including additional control points, controllers, programming, graphics, etc.
- Maintains the EU critical alarm systems within EMCS system. This includes making software configuration changes in response to building manager needs, maintaining the critical response alarm sheets, and the appropriate alarm log books.
- Coordinates and inspects the work of the site electricians and mechanics for activities associated with the installation, troubleshooting and repair of the building control systems and their related components.
- Provides direct assistance for calibrating temperature sensors, transducers, actuators, flow control devices and other control system components.
- Maintain and coordinate control system communications network requirements and activities with BNL’s Information and Technology Department (ITD).
- Develops strategies and coordinates efforts to replace existing outdated control systems with new modern controls.
- Responds and/or directs staff to respond to all emergencies, alarms, and unusual conditions related to the control systems. In the event of emergency situations such as equipment malfunction or power outage, takes appropriate action to prevent damage or notifies responsible supervisor or Facility Project Manager(s) as required.
- Attends regular control planning meetings.
- Performs contractor oversight, contract administration, and serves as the work control coordinator for outside control system maintenance contractors.
- Identifies and generates purchase requisitions for parts, services and equipment as needed.
- Approves invoices for payment.
- Coordinates the repair or maintenance of equipment in a safe and conscientious manner following safety rules, procedures, and actively participating in safety programs, such as confined space, lock-out/tag-out, etc.
- Takes responsibility for government-owned equipment assets such as vehicles, radios, computers, test equipment, office equipment, etc.
- Provides technical assistance to electricians, mechanics and technicians working on control systems and related components.

Position Requirements

Required Knowledge, Skills and Abilities:

- Formal training in Building Automation systems or related discipline and a minimum of three years of relevant experience.
- Requires a minimum of eight years of field experience troubleshooting HVAC and Laboratory control systems.
- Must be able to read, write, and verbally communicate in English.
- Through knowledge of the principles, methods, tools and equipment used in installing, maintaining, programming, calibrating, repairing, and replacing building control system and related equipment.
- Develop simple HVAC control sequences.
- Ability to read and understand mechanical, electrical, and HVAC control drawings/diagrams.
• Minimum of five years related experience troubleshooting, programming, and graphics development with modern microprocessor-based building automation controls Laboratory and HVAC systems.
• Must have a valid NYS Driver’s license.
• Working knowledge of Microsoft Office, Word and Excel.

Preferred Knowledge, Skills and Abilities:

• Certification as an HVAC controls technician with one or more Building Automation System (BAS) manufacturers such as Automated Logic Corporation (ALC), Johnson Controls, Siemens, etc.
• Two or four-year degree in a technical, science or engineering discipline.
• Strong analytical and problem-solving abilities.
• Familiarity with building control systems, energy conservation technologies, HVAC systems and controls, and energy management principles and practices.
• Experience and in-depth knowledge with some of the following:
  • AutoCAD
  • Automated Logic Controls (ALC) systems including programming and control devices
  • Barber-Coleman Network 8000 control systems and programming
  • Phoenix Laboratory Control systems
  • Rockwell Automation ControlLogix PLC systems and software
  • Microsoft Visio
  • Microsoft SQL Server
  • NFPA 70 – National Electrical Code®
  • NFPA 70E- Standard for Electrical Safety in the Workplace
  • Arc Flash Calculation Software SKM Power Tools for Windows

The selected candidate will be placed at the appropriate professional level dependent upon depth and breadth of relevant knowledge, skills, and experience.

Environmental, Safety, and Health, Considerations:

• Standing, bending, and lifting, up to 30 lbs.
• Ability to enter confined spaces.
• Ability to climb fixed and portable ladders and work at heights up to 30 feet.
• Use of Personal Protective Equipment.
• Work outdoors/cold environments and indoors/hot environments.

Additional Information:

All employees are expected to work safely. Each employee has environment, safety, and health, responsibilities. The employee is required to participate in achieving compliance in our ES&H policies including, but not limited to, emergency preparedness and response, efficiently servicing and maintaining a variety of process systems equipment and overall plant infrastructure. Occasional travel may be required to attend training classes, special meetings, conferences, or events.
At Brookhaven National Laboratory we believe that a comprehensive employee benefits program is an important and meaningful part of the compensation employees receive. Our benefits program includes, but is not limited to:

- Medical Plans
- Dental Plans
- Vacation
- Holidays
- Life Insurance
- 401(k) Plan
- Retirement Plan
- Paid Parental Leave
- Swimming Pool, Weight Room, Tennis Courts, and many other employee perks and benefits

We invite you to consider Brookhaven National Laboratory for employment. To be considered for this position, please apply online at [BNL Careers](https://careers.peopleclick.com/careerscp/client_brookhavenlab/ext_eway.do?functionName=viewFromLink&jobPostId=4339&localeCode=en-us) and enter the job title into the Keyword Search.

Brookhaven National Laboratory (BNL) is an equal opportunity employer that values inclusion and diversity at our Lab. We are committed to ensuring that all qualified applicants receive consideration for employment and will not be discriminated against on the basis of race, color, religion, sex, sexual orientation, gender identity, national origin, age, status as a veteran, disability or any other federal, state or local protected class. BNL takes affirmative action in support of its policy and to advance in employment individuals who are minorities, women, protected veterans, and individuals with disabilities. We ensure that individuals with disabilities are provided reasonable accommodation to participate in the job application or interview process, to perform essential job functions, and to receive other benefits and privileges of employment. Please contact us to request accommodation.

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