Special Hazards Systems
Level II Content Outline

(Updated Exam Released November 2, 2026)

Associate Engineering Technician

The candidates for NICET certification at Level II in Special Hazards Systems should have the knowledge, experience, and basic skills needed to work in the industry. Under limited supervision of a qualified technician, they inspect, maintain, repair, install, perform functional tests on, commission, and apply basic specifications and standards to the placement and configuration of components in gaseous, dry, and wet agent systems. Level II technicians have at least 2 years of experience in special hazards systems.

2.1 Inspection, Testing, and Maintenance

(Questions related to these tasks make up 20-30% of the exam.)

2.1.1 Verify integrity of detection and control system circuits. [4, 5, 16]
2.1.2 Conduct a smoke detector sensitivity test. [4]
2.1.3 Test notification devices for visibility and/or audibility. [2, 4, 16]
2.1.4 Visually inspect systems for damage or conditions that could limit proper functioning. [1, 4, 12]
2.1.5 Verify the quantity of agent satisfies the requirements of the original design. [2, 5]
2.1.6 Collect foam concentrate sample for lab analysis. [1, 12]
2.1.7 Install firmware upgrades on system devices. [4]
2.1.8 Test a system's emergency standby power supply. [4]
2.1.9 Arm and disarm systems. [2, 4, 5, 10]

2.2 Installation

(Questions related to these tasks make up 18-28% of the exam.)

2.2.1 Terminate wiring at panels and devices. [4]
2.2.2 Test the integrity of installed wire for ground faults and adequate insulation. [3, 4]
2.2.3 Install piping and/or mechanical components for a special hazards system. [4, 5]
2.2.4 Address field devices (e.g., smoke detectors, relays, monitor modules, control modules, initiating devices, notification devices). [4]
2.2.5 Program detection devices for sensitivity. [4]
2.2.6 Set flame detector viewing angles according to system plans and site conditions. [4]
2.2.7 Install foam system control valves and proportioning equipment. [1, 12]
2.2.8 Install wiring for a special hazard system. [4, 5]
2.2.9 Confirm installation of room integrity components (e.g., door sweeps, door closers, weather stripping, fire bags, firestopping). [5]

2.3 Commissioning

(Questions related to these tasks make up 6-16% of the exam.)

2.3.1 Conduct a room integrity test. [5]
2.3.2 Actuate and verify operation of electrical detection and control devices during pretesting and commissioning. [4, 5]
2.3.3 Actuate and verify operation of mechanical devices during pretesting and commissioning. [2, 5, 13, 14]
2.3.4 Conduct pipe-puff and pressure tests. [5]
2.3.5 Verify air transport times and suction pressures of an air-aspirating high-sensitivity smoke detection system. [4]
2.3.6 Perform a sequence-of operations test at commissioning. [2, 4, 5, 9,12]

NICET ©2026 No Derivative Works. = May be reproduced but do not alter, transform, or build upon this work.

2.3.7 Perform a final acceptance test (other than concentration) for an AHJ. [2, 5]

2.4 Repair and Recharge

(Questions related to these tasks make up 10-20% of the exam.)

2.4.1 Troubleshoot electrical circuitry. [3, 4, 5]
2.4.2 Conduct testing (e.g., leak, hydrostatic, visual requalification) of cylinders and hoses. [2, 5, 11, 12]
2.4.3 Recharge clean agent cylinders. [5, 10]
2.4.4 Recharge foam system tanks. [1, 12]
2.4.5 Replace damaged electrical system components. [3,4]

2.5 System Design and Configuration

(Questions related to these tasks make up 7-17% of the exam.)

2.5.1 Determine wiring and protection requirements for fire protection circuits. [3, 4, 5]
2.5.2 Conduct a site survey. [4,10]
2.5.3 Determine spacing and placement requirements for a site's fire protection system components. [2, 4, 5]
2.5.4 Select and lay out piping and restraints. [5, 7]
2.5.5 Ensure equipment compatibility with agent. [1, 2, 5, 10]

2.6 Work Management

(Questions related to these tasks make up 2-12% of the exam.)

2.6.1 Identify the scope of work. [3, 5, 8]
2.6.2 Prepare requests for information. [6]
2.6.3 Coordinate system installation work with other trades on-site. [5, 6]
2.6.4 Prepare for work tasks. [4, 8]
2.6.5 Prepare project close-out documentation. [4]

2.7 Safety

(Questions related to these tasks make up 3-13% of the exam.)

2.7.1 Recognize dangers associated with specific special hazard system types. [2, 5, 15]
2.7.2 Practice special safety precautions for discharge testing. [2, 4, 5]

July 23, 2026 Footnote number is linked to a reference on the General References listing

NICET ©2026 No Derivative Works. = May be reproduced but do not alter, transform, or build upon this work.