Special Hazards Systems
Level IV Content Outline

(Updated Exam Released November 2, 2026)

Senior Engineering Technician

The candidates for NICET certification at Level IV in Special Hazards Systems should have the knowledge, experience, and skills needed to work in the industry. They design systems involving unique applications of agents/devices, including detection and control, and/or explosion prevention. They troubleshoot complex* systems, manage multiple project teams, and negotiate contracts. Level IV technicians have at least 10 years of experience in special hazards systems.

**Complex systems may include, but are not limited to, one or more of the following: suppression systems, networked control units, emergency control interfaces, high expansion foams, medium expansion foams, very early warning smoke detection systems, low pressure CO_2, selector valve-controlled systems, explosion prevention, and explosion venting, water mist, foam pump system, hybrid (water and inert gas) fire-extinguishing systems, preaction, and deluge systems.*

4.1 System Design and Configuration

(Questions related to these tasks make up 48-58% of the exam.)

4.1.1 Interpret NFPA codes/standards. [2, 4, 14, 18]
4.1.2 Design a complex special hazards system. [1, 2]
4.1.3 Implement protection of a dust control system and/or equipment. [3, 14]
4.1.4 Coordinate and implement the application of explosion prevention systems (other than dust control equipment). [4, 10, 11, 14]
4.1.5 Develop installation specifications, taking into account manufacturer's instructions and any site-specific requirements. [6, 7, 8]

4.2 Work Management

(Questions related to these tasks make up 30-40% of the exam.)

4.2.1 Determine if a performance-based design is appropriate. [4, 8, 9, 12, 13]
4.2.2 Determine which type of special hazard system is most suitable for the hazard. [2, 4]
4.2.3 Negotiate and review project contracts. [5, 7, 12]
4.2.4 Develop a project budget. [7, 20]
4.2.5 Monitor project cost-control. [5, 7, 19]

4.3 Installation

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

4.3.1 Manage compliance with OSHA and insurance carrier (Bureau of Workers' Compensation) safety requirements. [2, 15, 16, 17]

October 8, 2026 Footnote number is linked to a reference on the General References listing

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