



Inspection & Testing of Water-Based Systems Level III Content Outline

(Updated Exams Planned Release Date: June 2, 2025)

Engineering Technician

The candidates for NICET certification at Level III in Inspection & Testing of Water-Based Systems should have the knowledge, experience, and basic skills needed to work in the industry. Working independently without supervision, they inspect, test, and maintain complex water-based systems. They are qualified to train and supervise lower-level technicians. They use a functional knowledge of all aspects of NFPA 25 and other applicable codes and regulations to advise owners, users, and AHJs of the results of ITM services. Level III technicians have at least 5 years of experience in water-based systems.

3.1 Deluge and Preaction Systems

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

- 3.1.1 Perform ITM tasks on deluge systems.
- 3.1.2 Perform ITM tasks on preaction systems.

3.2 Foam Systems

(Questions related to these tasks make up 5-15% of the exam.)

- 3.2.1 Perform ITM tasks on foam systems.

3.3 Water Mist and Water Spray Systems

(Questions related to these tasks make up 4-14% of the exam.)

- 3.3.1 Perform ITM tasks on water mist systems.
- 3.3.2 Perform ITM tasks on water spray systems.

3.4 Pressure-Reducing Valves

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

- 3.4.1 Perform ITM tasks on pressure-reducing valves.

3.5 Internal Obstruction Investigation

(Questions related to these tasks make up 15-25% of the exam.)

- 3.5.1 Supervise and report obstruction investigations.

3.6 Interpret Flow Test Results

(Questions related to these tasks make up 12-22% of the exam.)

- 3.6.1 Analyze five-year flow tests of standpipe systems and their components.
- 3.6.2 Analyze five-year flow tests of private fire service mains.
- 3.6.3 Analyze forward flow of backflow preventers.
- 3.6.4 Analyze pump test results.

3.7 Automated Inspection and Testing

(Questions related to these tasks make up 1-9% of the exam.)

- 3.7.1 Analyze automated inspection and testing results.
- 3.7.2 Verify automated testing equipment for listed use and purpose.
- 3.7.3 Identify frequencies for automated inspection and testing.