



CANDIDATE HANDBOOK

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The clipboard with checkmarks icon indicates important information concerning completing the application.



The hand icon indicates tips to avoid common application issues that could cause unnecessary delays.

GENERAL INFORMATION



Information provided in this candidate handbook is intended to help you through the certification process. However, certification requirements, exam content, fees, process, procedure, etc. are subject to change at any time. Please visit www.nicet.org for the most up-to-date information.

About NICET

NICET (National Institute for Certification in Engineering Technologies) is a not-for-profit organization created by the National Society of Professional Engineers (NSPE) to promote excellence in engineering technologies through certification and related services.

NICET's mission is to provide an independent evaluation of technical knowledge and experience among those working in the fields of engineering technology through certification; define and support career paths for engineering technologists and related disciplines; and ensure recognition of and continued professional development for certified individuals.

The Value of Certification

A high-quality certification validates an individual's knowledge, skills, and abilities in a defined profession, occupation, skill, or role. Certified individuals in the workforce reduce risk and enhance consumer protection and public safety. In addition, these certifications allow employers and other stakeholders to identify individuals with the competencies needed to perform a role or task.

Purpose

This certification program is designed for engineering technicians engaged in the layout and detailing of water-based systems that must meet code and statutory requirements. Areas covered include plan and submittal preparation, applications of various types of water-based systems, equipment selection and application, and technical management of layout projects. Technical areas covered include types of water-based systems and their components; water supply requirements; hydraulics; building features, hazards, and occupancy considerations;

system installation, inspection, and maintenance requirements; applicable codes and standards; and contract administration.

General Requirements for Certification



Successful candidates must pass an exam or exams, complete a work history description that documents and meets specific industry related experience, successfully perform key role-specific activities, and obtain a personal recommendation (Levels III and IV). Once earned, certification must be maintained through Continuing Professional Development (CPD) and recertified every three years.

Requirements for higher levels of certification include meeting all lower-level requirements.

Terms and Definitions



Examinations

Exams are administered on a computer at a proctored test center managed by a test administration company.



Level I exams are also offered in an online proctored format called OnVUE. The option to choose taking your exam online or at a test center is presented during exam scheduling.

You will be required to sign an NDA (Non-Disclosure Agreement) to begin your exam. Failure to accept will result in a failed score and fees will be forfeited. The NDA is as follows:

“You must accept the Non-Disclosure Agreement (NDA) in order to take this exam. I understand that NICET tests and test questions are owned and copyrighted by NICET and affirm that I will not share the content of any NICET examination with any other person. I acknowledge that divulging the contents of this examination to others in any manner is expressly forbidden and may subject me to sanctions.”



References that are allowed to be used during the exam are listed on the complete [References](#) page.

Each test session begins with a tutorial allowing you to get used to the process. During the test, you will see one question at a time, but can move forward or backward to view or review other questions. Some questions include a graphic or document that can be viewed by clicking on the Exhibit button. Exhibits may be in color. Answer options are selected by clicking on the appropriate circles or boxes next to the answers. In a few questions, you may be presented with a picture and asked to click on the part of the picture that correctly answers the question. Questions may have more than one correct answer, but in those cases, you will be told how many answer options are required. You will receive an unofficial score report at the conclusion of your test session.

Both a basic calculator and a scientific calculator are built into the exam. Candidates **may not** bring any personal calculators into the testing room.

Exams are only offered in English.



Work History (all levels)

A complete and detailed record of employment history with dates, employers, locations, positions held, status, supervisors, and work performed. All work activities, regardless of relevance to the certification, should be included.



First-time applicants (and those specifically directed to do so by NICET): For the span of your entire career, add and complete an entry for each position held at each employer and for any period within a given position in which your responsibilities changed significantly.

Returning applicants (those seeking certification at higher levels and additional subfields) and those wanting to document Active Practitioner points toward recertification: Follow the instructions above solely for the period of time from the end date of your last work history submittal to the date that you submit a new application. If you have previously submitted paper, PDF, scanned, etc. documents and do not know the date of your last submission, [contact NICET](#).

This section contains three pieces per entry: the Subfield/Technical Area (S/TA) selection, the percentage allocation, and the detailed description. The detailed description should be a summary in your own words of the work you performed.

The description, at a minimum, should include:

- Specific duties performed per your position/title
- Details about the technical and supervisory nature of the work
- Typical equipment, systems, and components that you have sold, designed, installed, tested, inspected, and/or maintained
- Specific calculations and layouts
- Specific tests and inspections that you have performed

- Examples of project types that you have worked on



Please note that copying the same description for each S/TA, position, or employer is not acceptable. While various positions may perform similar functions, each requires descriptions of specific duties and tasks performed in different roles and/or with different employers.



Work History Format and Examples

As a [Position/Title], I performed the following duties relating to [selling, designing, installing, testing, inspecting, and/or maintaining] [sub-field systems]. This included [supervisory positions]. (For Levels III / IV – include managerial roles per certification requirements.)

In performing my duties, I worked on [examples of project types], [typical equipment, systems, and components], [technical nature/specific calculations and layouts], [specific tests and inspections that you have performed].

Major Project Write-Up (Level IV)

A separate document that describes a major project in which the candidate has held substantial responsibility. It describes the purpose of the project, the candidate's role in the project, and the system involved in the project.



Performance Measures (all levels)

A set of activities that a supervisor or someone in a supervisory capacity must verify that the candidate has performed satisfactorily. This section of the application must be completed by the verifier.

Verifier

A current or previous supervisor as listed in the candidate's documented work history. The verifier does not have to be certified by NICET but must be a responsible and technically competent individual who is, or was, in a position and have the authority to directly supervise, inspect, and/or approve the applicant's work and verify that the candidate has demonstrated the required competencies, specific accomplishments, and project work related to the certification subfield and level.



A verifier cannot be a nontechnical supervisor, a peer, or a subordinate of the candidate.

Company owners, company presidents, and others in positions of similar hierarchies must find someone outside their companies to serve as their verifiers (e.g., authority having jurisdiction, general contractor, engineering consultant, licensed engineers, etc.).

If a candidate has identified multiple current direct supervisors, then the performance verification may be provided by a single verifier or a combination of verifiers as applicable. Each verifier must complete a Verifier Data form.

When needed and in situations of conflict or discrepancy, a verifier of record may be requested by NICET to clarify claims or inconsistencies, or to endorse and sign off on the candidate's documented work history submittals attesting to and confirming their accuracy and completeness.



Personal Recommendation (Levels III and IV)

An attestation of the technical quality, responsibility, and ethics demonstrated in the applicant's work experience by a professional who is familiar with the technical capabilities and background of the applicant.

Recommender

A professional who is familiar with the technical capabilities and background of the applicant and can attest to the technical quality, responsibility, and ethics demonstrated in the applicant's work experience.

NICET accepts recommendations from licensed professional engineers and NICET Level IV technicians. NICET will also accept recommendations from other professionals such as registered land surveyors, senior engineering technicians, graduate engineers, architects, geologists, scientists, fire marshals, code officials, or officials of other authorities who have jurisdiction appropriate for the certification.



The person who completes the recommendation form cannot be a current or a previous verifier for the candidate (i.e., provide the Performance Measure verifications for the candidate).

NICET will not accept recommendation forms that are completed by relatives, peers, or subordinates of the applicant.



Recertification

To protect the public's interests and promote your stature on the engineering team, NICET encourages and requires professional advancement through recertification.

Certification is valid for three years and requires that you earn Continuing Professional Development (CPD) points to recertify. Once you are certified, you should begin tracking CPD activities according to a pre-established point scale. At the end of the three-year certification period, you must demonstrate your professional growth by documenting 90 CPD points for each certification.



The three-year certification period is established with the first certification you earn. All subsequent NICET certifications and higher levels expire on the same date as the first certification.

CPD Category	Maximum points per 3-year certification period
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Active Practitioner	72 (up to 24 per year)
Additional Education	72
Advance Profession	45
Certification Activity	90
Special Exam	45

CPD points are divided among five categories, and your CPD points must be derived from two or more of these categories. Each category has a maximum number of points that may be counted towards recertification.

WATER-BASED SYSTEMS LAYOUT REQUIREMENTS & INFORMATION

NICET levels of certification are designed to provide a career track from entry to senior level. Each level has its own set of requirements, examinations, and application fees. The exam content outline provides information about what is covered in each domain (section) of the exam and the approximate percentage that each domain makes up of the total exam.

Level I – Technician Trainee

The candidates for certification at Level I in Water-Based Systems Layout (WBSL) should have the knowledge, experience, and basic skills needed to work in the industry. Under frequent supervision, they perform limited job tasks. They are learning much like a trainee or entry-level technician about flow tests, field checks, coordination, and data entry. They prepare and clean up drawings and plans and complete basic hydraulic calculations.



Level I Exam Requirement: <i>Pass the Level I Exam</i>	
Content Domain	% of Examination
Safety	1-7%
Contract Documents	5-15%
Survey Existing Conditions	5-15%
Research Codes and Standards	5-15%
System Layout	53-63%
Assemble Submittal Packages	1-10%

Project Correspondences	1-10%
Number of Questions	Duration
105	150 minutes
Application Fee \$230	



Level I Performance Requirement: *Obtain supervisor verification of all Level I Performance Measures*

Level I	Performance Measures
0301-1101	maintain personal safety on the job site
0301-1102	identify equipment and related materials commonly used in water-based systems layout
0301-1103	compile information about a project and its systems into drawing(s) in preparation for water-based systems layout
0301-1104	clean up layout drawings for supervisor review
0301-1105	compile submittal packages for supervisor review
0301-1109	communicate effectively
0301-1110	field verify a project
0301-1111	solve basic hydraulic equations and apply those concepts



Level I Work History Requirement:

Provide complete, detailed position descriptions and time allocations showing:

A minimum of 6 months* of technical experience with aspects of plan preparation for water-based fire protection systems, including preparation and compiling of CAD drawings, layout of sprinklers, and assisting in field surveys.

*Time periods are full time equivalent.

Level II – Associate Engineering Technician

The candidates for NICET certification at Level II in WBSL should have the knowledge, experience, and skills needed to work more independently than Level I technicians. Under reduced supervision, they perform routine job tasks. They work on projects and perform routine hydraulic calculations independently, prepare close-out documents, and participate in project management.



Level II Exam Requirement: *Pass the Level I and II Exams*

Content Domain	% of Examination
Safety	1-7%
Contract Documents	1-9%
Survey Existing Conditions	1-9%
Codes and Standards	6-16%
Basic Sprinkler System Layout	40-50%
Basic Standpipe System Layout	4-14%
Basic Fire Pump System Layout	3-13%
Hydraulic Equations	7-17%
Submittal and Approval Process	1-7%
Project Management	1-8%
Number of Questions	Duration
120	225 minutes



Level II Performance Requirement: *Obtain supervisor verification of all Level I and II Performance Measures*

Level II	Performance Measures
0301-3101	survey buildings and existing systems to acquire accurate information about features that could impact a water-based system design
0301-3102	identify types of existing water-based systems
0301-3103	conduct and evaluate water flow tests to determine the adequacy of the water supply
0301-3107	detail a water-based system layout, including related equipment, to meet codes, standards, and specifications
0301-3109	select, locate, and place hangers on drawings to meet standards and system requirements
0301-3110	prepare a fabrication stock list and a materials list for a system
0301-3111	communicate with AHJs and others in a professional manner



Level II Work History Requirement:

Provide complete, detailed position descriptions and time allocations showing:

A minimum of 2 years* of water-based fire protection systems layout core and related work experience. **Of the 2 years (24 Months)**, at least 12 months **must** be direct core water-based fire protection systems layout experience, including:

- Complete layout of NFPA 13D, 13R, and/or 13 sprinkler systems
- Application of design specifications to NFPA 13 sprinkler and/or standpipe systems
- Field surveys for NFPA 13D, 13R, and/or 13 systems and standpipe systems
- Detailing for other types of systems (pre-action, dry systems, etc.)

A total of 12 months (max) of related experience may be granted from any combination of the following:

- Special Hazards Systems Design (6 months max)
- Special hazards suppression systems installation (2 months max)
- Inspection and testing of water-based systems (2 months max)

- Sprinkler system installation/maintenance (2 months max)
- Fire Alarm Systems Design (2 months max)

*Time periods are full time equivalent.

Level III – Engineering Technician

The candidates for certification at Level III in WBSL should have the knowledge, experience, and skills needed to work independently with codes, standards, plans, and specifications to produce complete submittals for all types of water-based systems. They oversee Level I and II technicians and design and coordinate projects from start to finish.

The Level III exam consists of two parts: General Plans Preparation (WBSL Level III-G), and Hydraulics and Water Supply Planning (WBSL Level III-H). A candidate must pass both exams.



Level III Exam Requirement: *Pass the Level I, II, and III Exams**

**Level III exam has two parts – General and Hydraulics*

General Plans Preparation Exam

Content Domain	% of Examination
Contract Documents	1-8%
Survey Existing Conditions	1-10%
Codes and Standards	7-17%
Sprinkler System Layout	42-52%
Complex Standpipe System Layout	6-16%
Fire Pump Unit Layout	9-19%
Water Storage Tanks	1-9%
Project Management	1-9%
Number of Questions	Duration
70	175 minutes

Application Fee \$295

Hydraulics and Water Supply Planning	
Content Domain	% of Examination
Calculate Standpipe Systems	5-15%
Calculate Water Supply with Pumps	25-35%
Hydraulic Calculation Principles	55-65%
Number of Questions	Duration
60	240 minutes**
Application Fee \$295	

**This exam contains a 15-minute break. This time is NOT part of the allotted time to answer exam questions.



Level III Performance Requirement: *Obtain supervisor verification of all Level I, II, and III Performance Measures*

Level III	Performance Measures
0301-5101	evaluate site conditions relevant to water-based system layout, and correctly identify the occupancy types, codes, and standards involved
0301-5102	communicate technical information that is clear and accurate
0301-5103	understand and adhere to contractual obligations
0301-5108	develop and implement an installation strategy, including resolution of on-site scheduling conflicts and issues with other trades and project stakeholders
0301-5109	plan and oversee a complete and successful system commissioning, including documentation of test completion and creation of as-built drawings
0301-5112	determine whether a specific device type will meet codes, standards, and project specifications



Level III Work History Requirement:

Provide complete, detailed position descriptions and time allocations showing:

A minimum of 5 years* (60 months) of water-based fire protection systems layout experience. At minimum, **an additional** 3 years (36 months) from the previous level must be direct water-based fire protection systems layout experience, which **must** include:

- Complete layout of sprinkler and standpipe systems
- Hydraulic calculations, for a variety of applications

and which **may** include:

- Management of water-based system layout projects and/or code compliance

No new related experience may be added in Level III, although a total of 1 year (12 months) can be carried over from Level II.

*Time periods are full time equivalent.



Level III Personal Recommendation: *Obtain recommendation ratings showing a capacity for independent engineering technician responsibilities*

Level IV – Senior Engineering Technician

The candidates for certification at Level IV in Water-Based Systems Layout should have the knowledge, experience, and skills needed to supervise other technicians. Their work includes complex or specialized water-based systems. They have a comprehensive understanding of codes and standards.



Level IV Exam Requirement: *Pass the Level I, II, III and IV Exams*

Content Domain	% of Examination
Safety and Environmental Compliance	1-11%
Contract Documents	1-9%
Survey Existing Conditions	1-11%
Codes and Standards	29-39%
System Layout	35-45%
Project Management	5-15%
Number of Questions	Duration

80	240 minutes**
Application Fee \$420	
**This exam contains a 15-minute break. This time is NOT part of the allotted time to answer exam questions.	



Level IV Performance Requirement: *Obtain supervisor verification of all Level I, II, III and IV Performance Measures*

Level IV	Performance Measures
0301-7101	evaluate contract documents for feasibility and potential liabilities
0301-7102	evaluate the fire protection provided by existing systems to either a high-rise building or to an industrial facility requiring unusual design criteria or applications of standards
0301-7103	evaluate the fire protection currently provided to an area of an existing facility which has either flammable liquid storage or high-piled storage
0301-7104	evaluate 2 of the following 3 types of systems for the adequacy of fire protection provided to existing facilities: <ul style="list-style-type: none"> • pre-action • foam-water • diesel fire pump or vertical turbine
0301-7105	evaluate the proposed water-based systems for a building in which there are complex hydraulic requirements resulting from multiple occupancies, hazard classifications, and/or water supplies
0301-7106	understand smoke control zones and how they interface with fire suppression systems
0301-7107	interpret project concept and specifications for the design team
0301-7108	identify the costs and benefits of system design options
0301-7109	review hydraulic design to optimize system efficiency, identify errors in calculations, and suggest corrections
0301-7110	manage a project team from concept through project completion
0301-7111	negotiate a compromise among project stakeholders who have conflicting requirements for fire protection systems



Level IV Work History Requirement:

Provide complete, detailed position descriptions and time allocations showing:

A minimum of 10 years* (120 months) of full-time involvement with layout of water-based systems.** At minimum, **an additional** 5 years (60 months) from the previous level must be direct water-based fire protection systems layout experience, which **must** include:

- Management of multiple layout projects involving multiple work teams
- Coordination with installers
- Responsible interactions with clients, engineers, and AHJs

Note: Systems **must include wet-pipe, dry pipe, antifreeze, deluge, and pre-action, and **may** include foam and fixed water-spray.

Of the 5 years (60 months), 1 year (12 months) may be awarded as time involved as an AHJ in reviewing water-based system layouts for code compliance.

*Time periods are full time equivalent.



Level IV Personal Recommendation: *Obtain recommendation ratings showing a capacity for senior engineering technician responsibilities*



Level IV Major Project

Each candidate for certification at Level IV in Water-Based Systems Layout must submit a write-up (in narrative/essay format) of their role in a large and technically complex water-based systems layout project demonstrating senior-level engineering technician capabilities and responsibilities.

General Guidelines

The Major Project Write-up must be a concise, detailed, two-to-three-page written description of your role in one* major water-based fire protection systems layout project.

The major project write-up must be typed, identified by your name and NICET ID number, and be on separate pages from other application documents.

The write-up must specifically identify the project and your role/title in it.

You must be the sole author of the major project write-up. (Official job or project descriptions or testimonials from others will not be accepted.)

The project must be recent (within the last 4 years) and must be complete.

Your involvement in the project must include a range of water-based systems layout activities* and demonstrate independent, senior-level engineering technician work, including delegation of responsibilities and duties.

The write-up must reflect senior-level understanding of the nature and importance of the various aspects of the system and the project, and the roles of the various people involved in the completion and acceptance of the project.

Guidelines for Description of the Project

The write-up should address each of the following in a detailed narrative:

- The location of the project, the type of facility, and the purpose or objective of the project (factory, warehouse, shopping mall, theater, hotel, etc.)
- Size of the project (number of sprinkler heads, approximate layout and installation times, dates of candidate's involvement, etc.)
- Time period (start/stop dates, dates of candidate's involvement, amount of time candidate spent on project)
- Scope of project (number and types of systems, water supply sources, occupancies, hazards, hydraulic issues, design complications encountered and resolved, etc.)

Guidelines for Description of the Candidate's Role

The write-up should address each of the following in a detailed narrative:

- Supervisory or oversight responsibilities (number of people, the tasks they performed, and your relationships with them)
- Range/scope of activities and role in each activity (hazard analysis, design calculations, approvals, proposals, system installation, check-out and final approval test, etc.)

*Note: If all of these activities cannot be documented for a single project, they may be accumulated via several more narrowly focused projects.

CREATING AN ONLINE ACCOUNT

Existing Customers

If you have applied, tested, been certified, or even just created an account with your email and password, we most likely have a record. It is always best to use an existing account.

Go to our [login page](#) to login using your email and password. If you don't remember your password, use the Reset Password function to receive instructions by email. If you don't know or no longer have access to the email account in your record, please [contact us](#).

New Customers

Go to our [registration page](#) and complete the form to create a new account.



Make sure that nicet-noreply@useclarus.com is marked as an allowed/friendly address in any junk or spam filters you may have. All communication concerning exams, certification, and recertification are sent from that address.

SUBMITTING AN APPLICATION



Application Cards and Purchasing Exams

Once you have logged in to your NICET account, the first step is to add an “application card” to your home screen. Click “Apply” in the navigation bar to see the cards for every certification NICET offers. You may use the search to narrow down the selection or page through to find the certification(s) you are seeking. Click the green “Save to Home” button.

The Application Card now resides on your home screen.

To purchase the exam, click the exam name on the left side of the Application Card.

To start the experience section of the application, click the blue “Apply Here” button.

Performance Verification Requests

Enter the name and email of your direct supervisor and click send. When you click send, an email survey is sent to the email address listed (it is best to let them know to expect it and make nicet-noreply@useclarus.com an allowed email address) and a “Sent requests:” log is added. The status in the sent request changes from “Pending responder” to “Submitted” with a date once your verifier completes the survey. It will also show a link to “View Details” to see the responses. To qualify for certification, all performance measures must be verified with a yes answer. More than one verifier may be used if necessary.

Recommendation Requests (Levels III and IV only)

Enter the name and email address of a professional who is familiar with your technical capabilities and background and can attest to the technical quality, responsibility, and ethics demonstrated in your work experience. When you click send, an email survey is sent to the email address listed (it is best to let them know to expect it and make nicet-noreply@useclarus.com an allowed email address) and a “Sent requests:” log is added. The status in the sent request changes from “Pending responder” to “Submitted” with a date once your recommender completes the survey.

Work History

First-time applicants (and those specifically directed to do so by NICET): For the span of your entire career, add and complete an entry (Click "+Add") for each position held with each employer and for any period within a given position in which your responsibilities changed significantly.

Returning applicants (those seeking certification at higher levels and additional subfields) and those wanting to document Active Practitioner points toward recertification: Follow the instructions above solely for the period of time from the end date of your last work history submittal to the date you submit a new application. If you have previously submitted paper, PDF, scanned, etc. documents and do not know the date of your last submission, contact NICET.

Use the "+" button to break your experience down into all applicable technical areas in which you have worked for each time period. If you have experience in areas that are not listed, use "Other" and explain in the description. Do not add technical areas for which you have not worked.

This section contains three pieces per entry: the Subfield/Technical Area (S/TA) selection (select S/TA from dropdown list), the percentage allocation (enter percent of work devoted to S/TA in right side column), and the detailed description (enter description in the text box below the S/TA dropdown list). Create an entry for S/TA. The detailed description should be a summary in your own words of the work you performed.

Major Project (Level IV)

Complete the write-up, then click the "Browse" button to locate and upload the file.

Finalize

Once you have the verification from your supervisor and have updated your work history, read the final instructions, agree to the affidavit, and click "Finalize" to indicate to NICET staff that your submission is ready for review. Once you click "Finalize", your submission must not be altered unless requested by NICET.

TRAINING AND PREPARING FOR THE EXAMINATIONS

Good training teaches the knowledge and skills needed to perform well on the job. We recognize that training comes in many forms, companies and agencies have different resources, and individuals have different learning styles. NICET does not prescribe any one specific training course, school, or provider and allows customers to choose the training that works best for them. Training and professional certification are vital for developing a qualified workforce.

Practice Tests

The Water-Based Systems Layout program has [online practice tests](#) at all levels to help you get familiar with the content and exam interface. While we do provide feedback at the end with the percentage of correct questions in each section, performance on the practice test is not necessarily an accurate predictor of how you will perform on the certification exam.

Recognized Training Providers

NICET has agreements with industry associations, colleges, technical schools, and training companies. The listing is intended to help you find training that works best for you. NICET does not review, monitor, or endorse training programs and materials. For more information, visit our [training providers page](#).



Selected General References

These are lists of resources that candidates might find helpful in developing the knowledge for that level of certification. (No particular books, training, or education programs are required or endorsed for certification.) Selected General References are found on each program page under Reference Materials.

The diagram consists of two side-by-side panels from the NICET website. The left panel is titled "Fire Alarm Systems Level III Selected General References" and lists four references: NFPA 70 (2014), NFPA 72 (2016), NFPA 101 (2015), and IBC (2015). The right panel is titled "Fire Alarm Systems Certification Level III Content Outline" and lists two main sections: "3.1 Installation" and "3.2 Maintenance". Red arrows point from the references in the left panel to the corresponding tasks in the right panel: NFPA 70 to 3.1.1, NFPA 72 to 3.1.2, NFPA 101 to 3.1.3, and IBC to 3.2.1. A note at the bottom of the left panel states: "Note: An NFPA Handbook will NOT be accepted as a substitute for any of the titles listed above."

Title	Edition*
NFPA 70	2014
NFPA 72	2016
NFPA 101	2015
IBC	2015

3.1 Installation
(Questions related to these tasks make up 23-33% of the exam.)
3.1.1 Supervise projects (1, 2, 4, 5, 8, 12, 14, 15)
3.1.2 Compile as-builts and other documents (2, 4, 7)
3.1.3 Oversee system commissioning (2, 4)

3.2 Maintenance
(Questions related to these tasks make up 18-28% of the exam.)
3.2.1 Manage periodic testing (2)

This image shows how the references map to the content outline. This same system of mapping the reference list to the content outline applies to all NICET certification exams with similar formatting.

ADDITIONAL EXAMINATION INFORMATION

Testing Window

During the application process, applicants choose a six month window during which they will take their exams. The window allows for flexibility to schedule a convenient test date.

Scheduling the Examination

Applicants must schedule the exam location and time with Pearson VUE testing centers. Once the application has been processed, candidates can schedule the examination immediately after payment is processed.

Examination Administration

Pearson VUE has numerous testing centers across the county where Water-Based Systems Layout candidates can take their examinations. Candidates for Water-Based Systems Layout Level I may also take their examinations using an online proctored system.

Examination Testing Center Requirements and Instructions

Candidates are asked to arrive at the test center 30 minutes before the scheduled appointment time. This will give you adequate time to complete the necessary sign-in procedures, which include providing identification documents.

You are required to present two forms of original (no photocopies), valid (unexpired) IDs. One must be a primary ID (with name, photo, and signature), such as a driver's license or passport, and one must be a secondary ID (with name and signature), such as a credit card. The first and last name that you used to register must match exactly with the first and last name on the ID that is presented on test day. Digital IDs are not acceptable at Pearson VUE testing centers. All required IDs must be issued by the country in which you are testing. If you do not have the qualifying ID issued from the country you are testing in, a passport from your country of citizenship is required, along with a secondary ID. If you have any questions or concerns about the IDs that you are required to bring with you to the testing center for admittance to your exam, please contact [Pearson VUE customer service](#).

You will not be allowed to take any personal items with you into the testing room. This includes all bags, resources or books not authorized by the testing program, notes, cell phones, pagers, watches, and wallets. Pearson VUE testing centers provide lockers with which to store your personal items.

If you arrive more than 15 minutes late for an exam and are refused admission, the testing fee is forfeited. You will have to request a re-authorization and may have to pay an additional fee.

Online Proctored Testing Requirements and Instructions (WBSL Level I only)



Level I may be administered using OnVUE for remote proctored online delivery. See [System Requirements, Additional Permissions, and Helpful Instructions](#) before selecting.

Candidates choosing online, remote proctored testing are asked to log into their testing session 15 minutes prior to the scheduled appointment time. This will give you time to repeat the system check and to make any adjustments.

Candidates may test on a personal or work computer. However, work computers generally have restrictions such as firewalls that may prevent successful delivery. Tablets are prohibited. Before starting your exam, ensure that you are connected to a power source. Internet cookies must be enabled and pop-up blocking settings must be disabled.

A wired connection is preferred over wireless. Tethering to a mobile hotspot is prohibited.

You must use a webcam with a minimum resolution of 640x480 at 10 fps. You will need to verify that your audio and microphone are not set on mute. You should also shut down all non-essential applications before launching the OnVUE software.

Your testing environment should be in a walled room with a closed door and without distractions. No one else is permitted in the room with you while you are testing. If another person enters the room while you are testing, your exam will be terminated.

You are required to present a current government-issued ID. The name on your ID must match the name in your web account profile and in your appointment confirmation email. Acceptable forms of identification include a driver's license, passport, military ID, identification card (national/state identify card), or alien registration card (green card, permanent resident, visa).

You can only use references that have been approved for Level I.

Note: The name on the ID must match the name used on the exam application, or you will not be allowed to take the exam.

Special Accommodations for the Examination

It is NICET's policy to comply with Title III of the American with Disabilities Act (ADA). NICET will offer examinations in a place and manner accessible to persons with qualifying disabilities or offer alternative accessible arrangements for such individuals, where feasible.

Candidates must submit requests for accommodations to NICET at test@nicet.org and all requests must be approved at least 10 business days before the scheduled exam date.

To qualify for testing accommodation under the ADA, you must demonstrate that you have a qualifying disability that necessitates the provision of testing accommodation.

A disability is defined by the ADA as a physical or mental impairment that substantially limits one or more major life activities, as compared to most people in the general population.

Examination Score Report

Candidates are notified immediately regarding pass/fail status upon completion of the examination. An official score report will be available to candidates in the Pearson VUE portal within 14 days following completion of the examination.

Candidates that do not receive a passing score will receive a scaled score for the exam indicating the percent correct for each domain or section.

Rescheduling/Cancellation Policy for Examination

Rescheduling more than 24 hours before your exam date is complimentary in the same testing window. Please contact [Pearson VUE](#).

Within 24 hours after your scheduled date or for a new testing window, there is an additional fee equal to one half of the original testing fee. For more information on rescheduling, [click here](#).

Rescheduling the NICET exam has never been easier, and in most cases, does not incur any additional fees. Additional fees may apply if rescheduling is attempted within 24 hours of the appointment time, the eligibility window expires, or there is less than 24 hours until the eligibility expires.

The best way to reschedule your exam is to login to your NICET account and click “Schedule” in the left side navigation, then “Schedule with Pearson VUE” for the exam you want to reschedule.

Candidates who are testing using the online remote proctored (OnVUE) option may reschedule their appointment date/time right up until their appointment without incurring additional fees.

You will not be eligible for a refund if you cancel your examination once an examination has been scheduled.

Reexamination

If you do not pass the Water-Based Systems Layout Level I, II, III, or IV examinations, you can reschedule the examination after a 30-day period has elapsed. Retesting is limited to a maximum of three attempts in any 12-month span. After the third attempt, candidates must wait 6 months before retesting again.

CANDIDATE APPEALS AND COMPLAINTS

NICET certification is granted when the applicant for certification has demonstrated, through examination and submission of qualifications, the knowledge and skills required to properly function in a capacity relevant to the certification.

Candidate Appeals Process

An appeal is a formal request for special consideration made by the NICET Board of Governors or its representative related to an individual's achievement or retention of a certification.

An appeal must be submitted electronically to test@nicet.org with the word "Appeal" included in the subject header. The appeal must be submitted no later than 30 calendar days after notification by NICET of the adverse decision.

An appeal must include:

- Name and email address of the appellant;
- A description of why the appeal should be granted;
- Name of the certification; and
- All relevant documentation that supports the appeal.

We will acknowledge your appeal in writing within 10 business days of receipt.

Written notice of the Appeals Panel's determination (Appeal Denied or Appeal Approved) or a progress notice (Appeal Forwarded or Appeal Delayed) will be provided to the appellant within 10 business days of the determination.

If applicable, appeals are sent to an independent Appeals Team (a three-member team pulled from the Appeals Panel) for consideration. The appeal will be considered no later than 90 calendar days after the appeal receipt.

Written notice of the Appeals Team's determination (Appeal Denied or Appeal Approved) or a progress notice (Appeal Delayed) will be provided to the appellant within 10 business days of the determination.

Candidate Complaints Process

Individuals with concerns regarding the certification program materials, personnel, or activities are encouraged to discuss these with the individuals involved to try to resolve the matter informally. In some cases, however, informal resolution is not possible, and individuals may wish to file a formal complaint.

A formal complaint must be submitted electronically to test@nicet.org with the word "Complaint" in the subject header within 90 calendar days of the incident's occurrence.

The following are the types of complaints accepted and possible actions.

Type I. Complaints pertaining to an applicant's or certificant's qualifications for a particular certification. These complaints shall pertain to examination misconduct; false, incomplete, or misleading application information; improper work performance verification; or a false or

misleading personal recommendation. Possible actions may include temporary suspension or permanent revocation of certification(s).

Type II. Complaints pertaining to violations of the NICET Code of Ethics by an applicant or a certificant. Possible actions may include reprimand, temporary suspension of testing privileges or certification(s), or permanent revocation of testing privileges or certification(s).

Type III. Complaints pertaining to an applicant's or certificant's improper execution of the technical practices that are an integral part of the certification. Possible actions may include reprimand, withholding certification, temporary suspension of certification(s), or permanent revocation of certification(s).

Type IV. Complaints pertaining to an individual's representation that he or she holds a valid NICET certification. Possible actions may include sending a letter to the individual stating that NICET has no records of their certification. If NICET records show that the individual's certification has expired, the letter will include:

1. The date of expiration;
2. The reason for expiration; and
3. What the individual is required to do to obtain a valid certification.

If a preliminary investigation of the information/evidence reveals a valid complaint, the individual(s) named in the written complaint will be sent a "Notice of Complaint." The NICET Board of Governors will also request any additional information needed and a specific timeframe for providing such information. If this additional information is not received, a decision will be made based on the information initially provided.

If it is determined that no further action is warranted, the complainant will be advised in writing of the outcome of the initial assessment within 30–45 days after receipt of the complaint.

CERTIFICATION FAIRNESS POLICIES

Nondiscrimination

NICET adheres to the principles of fairness and due process and endorses the principles of equal opportunity. NICET certification programs will not discriminate or deny opportunity to anyone on the grounds of age, race, religion, gender, sexual orientation, gender identity, national origin, veteran status, or disability.

It is critical that an equal opportunity is provided to every individual and that no person or group is given special treatment in the granting of any credential.

Accommodations

It is NICET's policy to comply with Title III of the American with Disabilities Act (ADA). NICET will offer examinations in a place and manner accessible to persons with qualifying disabilities or offer alternative accessible arrangements for such individuals, where possible.

Impartiality

NICET's leadership and management, including the NICET Board of Governors, endorses the principles of impartiality and equal opportunity, and commits to act impartially and equitably in relation to its applicants, candidates, and certificants, including but not limited to 1) applying its standards and requirements for examinations and certifications equally to all individuals regardless of age, race, religion, gender, sexual orientation, gender identity, national origin, veteran status, or disability, 2) implementing its policies and procedures impartially and fairly, 3) not restricting certification based on undue financial or other limiting conditions, and 4) not allowing commercial, financial, or other pressures to compromise impartiality in certification activities.

Conflict of Interest

A conflict of interest may be defined as an interest that might affect, or might reasonably appear likely to affect, the judgement or conduct of an individual associated with the NICET Board of Governors, any staff member, contractor, or volunteer.

NICET will identify threats to impartiality related to its certification program(s). These analyses will consider at a minimum:

- Potential threats from its activities, its related bodies, its relationships with other entities, and the relationships of its personnel to other individuals or entities
- Commercial, financial, or other influences that pose potential threats
- Potential or real conflicts of interest of NICET Board of Governors members, panel members, staff, and contractors
- Balanced involvement of interested parties in certification activities, especially representation on the NICET Board of Governors and its panels
- Independence of NICET training activities from certification activities
- Changes in personnel involved with certification activities, organization structure, the certification schemes, certification policy, relationships with other entities, and contracts/agreements related to certification activities

Privacy and Confidentiality

NICET will hold in confidence and in a secure manner the information obtained over the course of certification program activities at all levels of the organization, including activities of all personnel (paid, contracted, or volunteer) acting on its behalf. All candidate information will be considered confidential.

Exam Security

NICET will safeguard all examination materials over the course of certification program activities at all levels of the organization, including all personnel (staff, volunteers, and contractors) acting on its behalf. NICET will take proactive measures to prevent fraudulent examination practices, including but not limited to the following:

- Upon registering for an examination site, just prior to the start of the exam, candidates are required to sign an agreement indicating their commitment to not release confidential materials or participate in fraudulent test-taking practices
- Examination personnel will confirm the identity of the candidate upon check-in
- A proctor will be present during the examination
- The proctor will take measures to prevent the use of unauthorized aids in the examination area
- NICET's testing agency will monitor the examination results for indications of cheating
- For ONVUE remote proctored testing, Exam Environment Photos: Candidates are required to take four (4) photos of their exam environment during check-in.
 - Environment photos are used for the proctor's reference during the session and for quality control, security, and auditing purposes
 - Pearson VUE deletes check-in photos according to regulations in the country where a candidate sits for an exam
 - After a candidate submits photos, they are under exam conditions. The photos are reviewed by an OnVUE session greeter. Candidates are being recorded during this time and during the exam session

For remote proctored exams, in addition to the above, the below practices are followed to ensure exam security:

- Pearson VUE Browser Lock is a secure browser that is integrated with an OnVUE session. Browser Lock must be downloaded from the exam sponsor home page PRIOR to the exam. Browser Lock prevents candidates from:
 - Accessing other applications or the candidate's desktop
 - Task switching

- Using function keys and certain keyboard shortcuts
- Typing a URL
- Cutting, copying, or pasting content outside of Browser Lock into the exam or copying content from the exam outside of Browser Lock
- Screensharing

Records Control

NICET will restrict access to the certification records to only those personnel requiring access to accomplish certification-related duties.

Electronic copies of records will be archived according to the records control schedule. Printed copies of records that are scanned to be stored electronically will be shredded. The documents/records will be held in a secure location if they contain information that must be protected.

PROFESSIONAL CONDUCT POLICIES

Code of Ethics

NICET-certified engineering technicians and technologists recognize that the services they render have a significant impact on the quality of life for everyone. As they perform their duties and responsibilities on behalf of the public, employers, and clients, they shall demonstrate personal integrity and competence. Accordingly, certificants shall:

1. Have due regard for the physical environment and for public safety, health, and well-being. If their judgment is overruled under circumstances where the safety, health, property, or welfare of the public may be endangered, they shall notify their employer, client, and such other authority as may be appropriate. An employee shall initially express those concerns to the employer.
2. Undertake only those assignments for which they are competent by way of their education, training, and experience.
3. Perform their duties in an efficient and competent manner with fidelity and honesty.
4. Admit and accept their own errors when proven wrong and never distort nor alter the facts in an attempt to justify their decisions.
5. Avoid conflicts of interest whenever possible. When unavoidable, they shall disclose to their employer or client, in writing, any action that might create the appearance of a conflict of interest.
6. Avoid receiving and granting bribery in all its forms.
7. Strive to maintain their proficiency by updating their technical knowledge and skills in engineering technology.
8. Not misrepresent or permit misrepresentation of their own or their associate's academic or professional qualifications nor exaggerate their degree of responsibility for any work.
9. Not reveal facts, data, or information obtained in connection with services rendered without prior consent of the client or employer except as authorized by law.