

# **NICET Certification in Fire Alarm Systems**

---

## **A Step-by-step Guide**

**By: Michael B. Baker, SET**

**Michael Baker & Associates, Inc.**

**P.O. Box 737**

**Gladstone, OR 97027**

**(503) 657-8888**

# Friendly Reminders

---

- Exits
- Please silence your phone, pager, PDA, Palm, PocketPC, WAP, Blackberry, et al
- Latrine, gedunk, smokers, and sweepers
- Scheduled for 8-5
- Breaks



# Introductions

---

- **Name**
- **Employer**
- **What do you expect from this class?**
- **“I understand Fire Alarm Systems...”**
  1. **Huh?**
  2. **Somewhat**
  3. **Reasonably well**
  4. **I’m an Imperial Fire Wizard**

# Agenda

---

## What this seminar is

- A review of NICET
- A review of the certification process
- How to prepare for a NICET exam

## What this seminar is not

- A NICET exam
- A course in Fire Alarm Systems

# Agenda

---

- **NICET Background**
- **NICET by State**
- **3 Steps to Certification**
- **What to Expect on Exam Day**
- **Test-taking Tactics**
- **“Now What?”**
- **Greasing the Skids**
- **Additional Resources**



# NICET Background

---

- **National Institute for Certification in Engineering Technologies.**
- **Founded in 1961.**
- **A not-for-profit division of NSPE.**
- **The NICET mission is to be an independent evaluator of knowledge and experience...**

# NICET Background

---

- **Job-task certification program developed in 1976 while NICET was working on a US Federal Highway Administration contract.**
- **Job tasks-->work element-->ET specialty**
- **Over 104,000 certificates in 40 categories**
- **Fire Alarm Systems program since 1988**
- **Over 8000 certified as of 7/2/02**

# NICET Background

---

**Fire Alarm System Certificates as of 7/2/02**

**U.S. Total - 8342**

**Level I – 1833 II – 4658 III – 1254 IV – 597**

**OR Total - 102**

**Level I – 33 II – 49 III – 10 IV – 10**

**WA Total - 188**

**Level I – 43 II – 108 III – 20 IV – 17**



# NICET Background

---

**Over 104,000 certificates in 40 fields**

- **Geotechnical**
  - **Construction, Exploration, Laboratory, Generalist**
- **Industrial Instrumentation**
- **Land Management & Water Control**
  - **Erosion & Sediment Control**
- **Low Voltage Electronic Communications Systems**
  - **Audio Systems**
- **Transportation**
  - **Bridge Safety Inspection**
  - **Highway Construction**
  - **Highway Design**
  - **Highway Maintenance**
  - **Highway Materials**
  - **Highway Surveys**
  - **Highway Traffic Operations**
- **Underground and Utilities Construction**
  - **Water & Sewer Lines**

# NICET Background

---

**Over 104,000 certificates in 40 fields**

- **Building Construction**
  - **Water & Wastewater Plants**
- **Geosynthetic Materials Installation Inspection**
  - **CSPE Geomembranes, HDPE Geomembranes, VLDPE/LLDPE Geomembranes, Geosynthetic Clay Liners, Geotextiles, Geonets, Geogrids, Geosynthetic Appurtenances**
- **Construction Materials Testing**
  - **Asphalt, Concrete, Soils**
- **Fire Protection Engineering Technology**
  - **Automatic Sprinkler Systems Layout**
  - **Fire Alarm Systems**
  - **Inspection & Testing of Water-Based Systems**
  - **Special Hazards Suppression Systems**

# NICET Background

---

## Value of NICET certification

- **Increased professional stature.**
- **Increased opportunities for advancement.**
- **Quick entry into job assignments that would otherwise require extensive on-the-job training.**
- **Opportunities for job assignments where there are regulations or contract provisions that require NICET certification.**

# NICET by State

---

- **Alaska – Install-Level II; Design-Level III.**
- **Idaho – No known requirements.**
- **Montana – Level II allows an installer to work with all brands of fire alarm equip.**
- **Oregon – Varies by municipality.**
- **Washington – RCW changes coming...**
- **Trend – Install: Level II; Design: Level III.**
- **25 States require NICET at some level.**

# 3 Steps to Certification

---

## Step 1: The Four Certification Criteria:

- Relevant Work Experience
- Written Examination
- Supervisor Evaluation
- Personal Recommendation

## Step 2: Technician Application Form

## Step 3: The Examination

# STEP 1

## Review the Four Certification Criteria

---

### 1 - Relevant work experience

- Level I - several months
- Level II - 2 years minimum
- Level III - 5 years minimum
- Level IV - 10 years minimum



### 2 - Written examination

### 3 - Supervisor evaluation

### 4 - Personal recommendation

# **STEP 2**

## **Technician Application Form**

---

### **Part I – Applicant Information**

#### **Section 1: Personal Information**

**A: Name, address, phone number, email, & SSN**

**B: Employer name, address, phone #, and position**

**C: Has your last name changed?**

**D: Engineering or engineering tech. student?**

#### **Section 2: Objectives**

**A: Applying for certification or;**

**B: Applying for examination only**

#### **Section 3: Statement of Understanding**

# **STEP 2**

## **Technician Application Form**

---

### **Part II - Examination**

#### **Section 1: Examination Scheduling**

- **1<sup>st</sup> & 2<sup>nd</sup> choice of test centers**
- **First come first served**

#### **Section 2: Work Element Selection & Verif.**

- **Field code, element ID & title, & verifier's initials**
- **Enter up to 34 work elements**

#### **Section 3: Statement of Verification**

- **Name, signature, and initials of verifier (Part III)**
- **Include payment for exam**



# STEP 2

## Technician Application Form

---

2002

Test Center OR1 – PCC- Sylvania Campus

	<u>Cycle 1</u>	<u>Cycle 2</u>	<u>Cycle 3</u>	<u>Cycle 4</u>
EXAM ...	Jan 26	Apr 20	Jul 27	Nov 16
MAIL .....	Dec 8	Mar 2	Jun 8	Sep 28

# STEP 2

## Technician Application Form

---

2002

Test Center OR2 - Clackamas Community College

	<u>Cycle 1</u>	<u>Cycle 2</u>	<u>Cycle 3</u>	<u>Cycle 4</u>
EXAM ...	Jan 26	Jun 22	Sep 14	Nov 16
MAIL .....	Dec 8	May 4	Jul 27	Sep 28

# **STEP 2**

## **Technician Application Form**

---

**2002**

**Test Center WA1 – Bates Tech. College - Tacoma**

**Cycle 1**

**Cycle 2**

**Cycle 3**

**Cycle 4**

**EXAM ... Feb 23**

**May 18**

**Sep 14**

**Dec 14**

**MAIL ..... Jan 5**

**Mar 30**

**Jul 27**

**Oct 26**

# STEP 2

## Technician Application Form

---

2002

Test Center WA2 – Walla Walla CC

	<u>Cycle 1</u>	<u>Cycle 2</u>	<u>Cycle 3</u>	<u>Cycle 4</u>
EXAM ...	Jan 26	Apr 20	Jul 27	Oct 19
MAIL .....	Dec 8	Mar 2	Jun 8	Aug 31

# STEP 2

## Technician Application Form

---

2002

Test Center WA3 - Spokane Community College

	<u>Cycle 1</u>	<u>Cycle 2</u>	<u>Cycle 3</u>	<u>Cycle 4</u>
EXAM ...	Feb 23	May 18	Aug 24	Nov 16
MAIL .....	Jan 5	Mar 30	Jul 6	Sep 28

# STEP 2

## Technician Application Form

---

### Part II – Examination (continued)

#### Section 2: Work Element Selection & Verif.

- Field code, element ID & title, & verifier's initials
- Enter up to 34 work elements
- [Review the Program Detail Manual](#)



# STEP 2

## Technician Application Form

---

### Three types of Work Elements:

General represent tasks performed regularly by all technicians in the specialty area.

Special may be more specific to certain specialty areas within the subfield.

Core are General Work Elements that must be mastered before a technician can build on their knowledge and advance to the upper levels of certification.

# STEP 2

## Technician Application Form

---

<u>Level I</u>		<u>Level II</u>	
Level I - General	6	Level I – General	6a
Level I - Special	<u>2</u>	Level I – Special	2
Total	8	Level II – General	18
		Level II – Special	<u>4</u>
		Total	30

(a) Work element 31011 “Basic Metric Units and Conversions” must be passed to achieve certification at levels II, III, and IV.



# STEP 2

## Technician Application Form

---





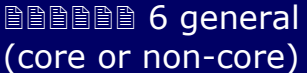

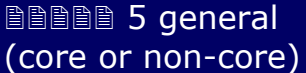





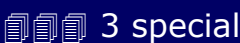





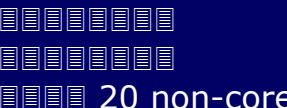

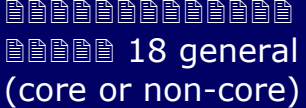





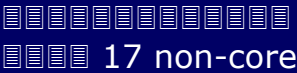

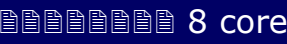
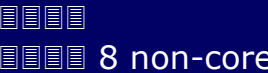
















<u>Level III</u>	
Level I General	9
Level I Special	3
Level II General	24
Level II Special	6
Level III General	11
Level III Special	<u>1</u>
Total	54

<u>Level IV</u>	
Level I General	9
Level I Special	3
Level II General	26
Level II Special	6
Level III General	15
Level III Special	1
Level IV General	6
Level IV Special	<u>2</u>
Total	68

# STEP 2

## Technician Application Form

<u>Level I</u>		<u>Level II</u>		<u>Level III</u>		<u>Level IV</u>	
Level I General	6	Level I General	6	Level I General	9	Level I General	9
Level I Special	<u>2</u>	Level I Special	2	Level I Special	3	Level I Special	3
Total	8	Level II General	18	Level II General	24	Level II General	26
		Level II Special	<u>4</u>	Level II Special	6	Level II Special	6
		Total	30	Level III General	11	Level III General	15
				Level III Special	<u>1</u>	Level III Special	1
				Total	54	Level IV General	6
						Level IV Special	<u>2</u>
						Total	68

Available Elements	Level I Exam Requirement	Level II Exam Requirement	Level III Exam Requirement	Level IV Exam Requirement
<p><b><u>Level I</u></b>   6 core</p> <p> - 31011</p> <p> 4 non-core</p> <p> 5 special</p>	<p> 6 general (core or non-core)</p> <p> 2 special</p>	<p> 5 general (core or non-core)</p> <p> - 31011</p> <p> 2 special</p>	<p> 6 core</p> <p> 2 non-core</p> <p> - 31011</p> <p> 3 special</p>	<p> 6 core</p> <p> 2 non-core</p> <p> - 31011</p> <p> 3 special</p>
<p><b><u>Level II</u></b>   9 core</p> <p> 20 non-core</p> <p> 7 special</p>		<p> 18 general (core or non-core)</p> <p> 4 special</p>	<p> 9 core</p> <p> 15 non-core</p> <p> 6 special</p>	<p> 9 core</p> <p> 17 non-core</p> <p> 6 special</p>
<p><b><u>Level III</u></b>   8 core</p> <p> 8 non-core</p> <p> 2 special</p>	<p> <b>General Core</b></p> <p> <b>General Non-core</b></p> <p> <b>Special</b></p>		<p> 8 core</p> <p> 3 non-core</p> <p> 1 special</p>	<p> 8 core</p> <p> 7 non-core</p> <p> 1 special</p>
<p><b><u>Level IV</u></b>   5 core</p> <p> 2 non-core</p> <p> 9 special</p>				<p> 5 core</p> <p> 1 non-core</p> <p> 2 special</p>

# STEP 2

## Technician Application Form

---

### Part II – Examination (continued)

#### Section 3: Statement of Verification

- Name, signature, and initials of verifier (Part III)
- Include payment for exam



# STEP 2

## Technician Application Form

---

### Part III – Performance Verification

#### Section 1: Applicant's / Verifier Relationship

A: Verification provided by ...

B: What if verifier has never supervised applicant

C: Your supervisor for what period of time

#### Section 2: Verifier's Personal Information

To be completed by verifier

#### Section 3: Verifier's Statement

***Sign and initial in ink color other than black***

# STEP 2

## Technician Application Form

---

### Part IV – Work History

- Make copies of the form (page \_\_\_ of \_\_\_)
- Use a separate page for each position
- Complete each block of information

#### To test (with fee):

NICET

Dept 0037

Washington DC 20055

#### No test:

NICET

1420 King Street

Alexandria, VA 22314

# **STEP 2**

## **Technician Application Form**

---

### **Part V – Personal Recommendation (1 yr)**

**Section 1: Applicant's Statement "Policy #2D"**

**Section 2: Recommender's Information**

- **Must be qualified (i.e. PE, NICET senior tech.)**
- **Must be familiar with applicants capabilities**
- **May not be a relative or non-tech background**

**Section 3: Applicant / Recommender Relation.**

**Section 4: Recommender's Evaluation**

**Section 5: Recommender's Statement**

# **STEP 2**

## **Technician Application Form**

---

### **Education Credit Addendum (optional)**

**Allows for up to 18 months of work experience towards Level II.**

- ABET/TAC-accredited 2- or 4-year degree**
- Apply for credit within 1 year of grad.**
- Follow the instructions at bottom of form**



# **STEP 2**

## **Technician Application Form**

---

- |                                 |                               |
|---------------------------------|-------------------------------|
| <b>1 - Complaints</b>           | <b>9 - Status</b>             |
| <b>2 - Irregularities</b>       | <b>10 - PDM &amp; GIB</b>     |
| <b>3 - Confidential Info</b>    | <b>11 - Effective date</b>    |
| <b>4 - Certification status</b> | <b>12 - Non-refundable</b>    |
| <b>5 - See #4</b>               | <b>13 - Eligibility</b>       |
| <b>6 - Level IV</b>             | <b>14 - Work experience</b>   |
| <b>7 - Mailing lists</b>        | <b>15 - Exam fee</b>          |
| <b>8 - Exam security</b>        | <b>16 - Foreign work exp.</b> |

# **STEP 2**

## **Technician Application Form**

---

- |                               |                                |
|-------------------------------|--------------------------------|
| <b>17 - Recommender Form</b>  | <b>25 - Reactivation</b>       |
| <b>18 - Special exam</b>      | <b>26 - Deletion</b>           |
| <b>19 - ADA</b>               | <b>27 - Copying forms</b>      |
| <b>20 - Retesting A/B</b>     | <b>28 - Seals &amp; Stamps</b> |
| <b>21 - Crossover</b>         | <b>29 - Test center</b>        |
| <b>22 - Release of score</b>  | <b>30 - CPD</b>                |
| <b>23 - Posting crossover</b> | <b>31 - Suspended status</b>   |
| <b>24 - Exam rescheduling</b> |                                |

# STEP 2

## Technician Application Form

---

Send your exam application and fee to:

**NICET**

**c/o Bank of America**

**Dept 0037**

**Washington, DC 20055**



# STEP 2

## Technician Application Form

---

Technician exam \$ 150.00

Annual Registry fee \$ 30.00\*

Re-certification fee \$ 75.00\*\*



- Certification is for good for 3 years.
- The registry fee is payable annually and ensures your active status for one year.
- Renewal after 3 years requires 90 CPD points

\*Plus \$5.00 for each additional certificate

\*\*Plus \$15.00 for each certificate

# STEP 2

## Technician Application Form

---

- **Arrive and check in before 8 a.m.**
  - **Test begins at 8:30 a.m.**
- **Be sure to bring:**
  - **Your confirmation notice and picture ID**
  - **At least (2) #2 pencils and eraser**
  - **Two highlighters of different color**
  - **Self-powered calculator**
  - **Code books, handbooks, & bound notes**
- **Do not bring laptop or unbound notes**

# STEP 2

## Technician Application Form

---

- Scantron® answer sheet
- Expect 5 or 10 questions per element
- Timed questions (ave. 2 minutes each)
- All questions are multiple choice
- Pass/Fail - 60% required to pass
- Exams over 3 hrs break for 1-hr lunch
- The proctor is not an exam resource
- Use your time wisely...

# Test-taking Tactics

---

- **Check your exit time on the whiteboard**
- **Start reading test until brain-lock passes**
- **Use 1<sup>st</sup> highlighter on first pass**
- **Complete first pass before lunch break**
- **Start your 2<sup>nd</sup> pass after lunch**
- **Use 2<sup>nd</sup> highlighter on 2<sup>nd</sup> pass**
- **After your second pass, guess!**
- **Review answer sheet in final moments**

# Now What?

---

- A score report will be mailed within 18 days
- Certification determined within 90 days
- Once certified, use the CET suffix or;
  - TT - Level I (Technician Trainee)
  - AET - Level II (Associate Eng. Tech.)
  - ET - Level III (Engineering Technician)
  - SET - Level IV (Senior Eng. Tech.)
- Track progress with Personal Tally Sheet
- Keep track of your CPD activities





# Greasing the skids

---

- **Send NICET everything they need to evaluate your eligibility before you test.**
- **When your file is reviewed, your evaluator will be looking for 3 things:**
  - **A good work history**
  - **A current personal recommendation from an appropriate person**
  - **Your supervisor's verification (initials) of work elements**

# Greasing the skids

---

- **Be sure your work history is detailed, informative and complete.**
- **Personal Recommendations = one year**
- **Supervisor verifies work elements.**
- **Level IV requires project write-up.**
- **If anything is left out, your certification will be delayed and you will receive a “Conditional Decision Letter”.**

# Additional Resources

---

- NICET Prep. Handbooks <http://etnews.org>
- NICET web site: <http://www.nicet.org>
- NFPA web site: <http://www.nfpa.org>
- ASCET web site <http://www.ascet.org>
- OAFAA web site: <http://www.oafaa.org>
- ET News web site: <http://etnews.org>
- Engineering Technician Newsletter  
[mhbaker@etnews.org](mailto:mhbaker@etnews.org) subject => subscribe
- Usenet: [alt.engineering.fire-protection](mailto:alt.engineering.fire-protection)

# Review

---



**Joseph Nicéphore 1826**

# Good Luck and Have Fun!

---

