

**EXAMINATION REQUIREMENTS
FOR
FIRE SUPPRESSION SYSTEM
CERTIFICATION**



**AS PRESCRIBED BY
THE STATE FIRE PREVENTION COMMISSION
ON NOVEMBER 11, 2009
IN ACCORDANCE WITH
THE STATE FIRE PREVENTION REGULATIONS
REGULATION 703, CHAPTERS 5 AND 7**

**EXAMINATION REQUIREMENTS
FOR
FIRE SUPPRESSION SYSTEM
CERTIFICATION
TABLE OF CONTENTS**

| Subject | Page |
|--|-------------|
| Table 1 – Classification of FSS Certificates | 3 |
| Table 2 – Exam Requirements for FSS Certification..... | 4 |
| Class I Fire Suppression System Certificate | 5-6 |
| Class II Fire Suppression System Certificate | 7 |
| Class IIIa Fire Suppression System Certificate | 8 |
| Class IIIb Fire Suppression System Certificate | 9 |
| Class IIIc Fire Suppression System Certificate | 10 |
| Class IIId Fire Suppression System Certificate | 11 |
| Class IIIe Fire Suppression System Certificate..... | 12 |
| Class IV Fire Suppression System Certificate..... | 13 |
| Class V Fire Suppression System Certificate..... | 13 |
| Class VIa Fire Suppression System Certificate..... | 14 |
| Class VIb Fire Suppression System Certificate..... | 14-15 |
| Class VIIIa Fire Suppression System Certificate..... | 16 |
| Class VIIIb Fire Suppression System Certificate..... | 16-17 |
| Selected General References | 18 |

Dates of publication for previous editions:

August 15, 1989
June 19, 1990
March 12, 1999
June 12, 2003
November 11, 2009

To receive additional copies of the pamphlet, contact the

Office of the State Fire Marshal
 1537 Chestnut Grove Road
 Dover, DE 19904-1544
 Phone (302) 739-4394 Fax (302) 739-3696

**Classification of Fire Suppression System
Licenses Certificates
As per the State Fire Prevention Regulations
Regulation 703, Chapters 5 and 7**

Table 1

| Class | Type of work that may be performed |
|--------------|---|
| I | All types of fire suppression systems under Classes II, III, IV, and VIb. |
| II | Sprinkler and Standpipe Systems. |
| IIIa | Engineered CO2 fire suppression systems. |
| IIIb | Engineered clean agent fire suppression systems. |
| IIIc | Engineered foam fire suppression systems. |
| IIId | Engineered dry chemical fire suppression systems. |
| IIIe | Engineered water mist fire suppression systems. |
| IV | Residential fire suppression systems (NFPA 13D systems) |
| Va | Pre-engineered CO2 fire suppression systems only. |
| Vb | Pre-engineered clean agent fire suppression systems only. |
| Vc | Pre-engineered foam fire suppression systems only. |
| Vd | Pre-engineered dry chemical fire suppression systems only. |
| Ve | Pre-engineered wet chemical fire suppression systems only. |
| Vf | Pre-engineered water mist suppression systems. |
| VIa | Inspection and Testing of all water-based systems. |
| VIb | Inspection, Testing and Maintenance of all non water-based fire suppression systems and Maintenance of water-based fire suppression systems. |
| VIIIa | Inspection and Testing of water-based In-House Licensed Systems, ONLY. |
| VIIIb | Inspection, Testing and Maintenance of all In-house Licensed non water-based fire suppression systems and Maintenance of water-based In-house fire suppression systems. |

**Examination Requirements for
Fire Suppression System Certification
As per the State Fire Prevention Regulations
Regulation 703, Chapters 5 and 7**

Table 2

| Certificate Class | Examination Requirements |
|--------------------------|--|
| I | Successfully complete "SFPR Exam" Successfully complete "Class IV Certification Exam" Successfully complete "Class II Certification Exam" Successfully complete "Class III Combined Certification Exam" |
| II | Successfully complete "SFPR Exam" Successfully complete "Class II Certification Exam" |
| IIIa | Successfully complete "SFPR Exam" Successfully complete "Class IIIa Certification Exam" |
| IIIb | Successfully complete "SFPR Exam" Successfully complete "Class IIIb Certification Exam" |
| IIIc | Successfully complete "SFPR Exam" Successfully complete "Class IIIc Certification Exam" |
| IIId | Successfully complete "SFPR Exam" Successfully complete "Class IIId Certification Exam" |
| IIIe | Successfully complete "SFPR Exam" Successfully complete "Class IIIe Certification Exam" |
| IV | Successfully complete "SFPR Exam" Successfully complete "Class IV Certification Exam" |
| Va-Vf | Successfully complete "SFPR Exam" Provide proper Manufacturer's Certification |
| VIa | Successfully complete "SFPR Exam" Successfully complete "NICET Level II Inspection and Testing of Water-Based Certification Exam" Provide proof of 16 hours of continuing education |
| VIb | Successfully complete "SFPR Exam" Successfully complete "Class II Certification Exam" Successfully complete "Class III Combined Certification Exam" Successfully complete "Class IV Certification Exam" |
| VIIIa | Successfully complete "SFPR Exam" Successfully complete "NICET Level II Inspection and Testing of Water-Based Certification Exam" |
| VIIIb | Successfully complete "SFPR Exam" Successfully complete "Class IV Certification Exam" Successfully complete "Class II Certification Exam" Successfully complete "Class III Combined Certification Exam" |

CLASS I

FIRE SUPPRESSION SYSTEM CERTIFICATE EXAMINATIONS

Section 1 – Scope of work which may be performed

A Class I Fire Suppression System Certificate will allow the certificate holder to design, prepare technical documents, install and maintain Fire Suppression Systems under Class II, III, IV and VIb Certificates.

Section 2 – Examination Requirements

1. State Fire Prevention Regulations Examination (SFPR Exam)

The State Fire Prevention Regulations Exam is based on the current edition of the State Fire Prevention Regulations. The purpose of this exam is to test for knowledge of the Delaware State Fire Prevention Regulations.

2. Fire Suppression System Class II Certification Examination (FSS Class II Exam)

(Note 1)

The Fire Suppression System Class II Certificate Exam is an exam consisting of questions from the following 38 NICET work elements. Successful completion of this exam requires passing all 38 work elements.

| | |
|---|---|
| 11001 – PLANS, SPECIFICATIONS AND CONTRACTS | 13017 – BUILDING CODES |
| 11002 – LAYOUT SIMPLE DESIGNS | 13023 – SPECIAL SPRINKLERS |
| 11003 – NFPA STANDARDS | 13024 – WATER FLOW TEST |
| 11004 – BASICS OF SPRINKLER SYSTEMS | 13025 – FUNDAMENTALS OF HYDRAULICS |
| 11005 – BASIC MATERIALS AND COMPONENTS | 13026 – DWELLING SPRINKLERS |
| 13001 – CONSTRUCTION PLANS | 14002 – SELECTION OF FIRE PUMPS |
| 13002 – FIRE PROTECTION PLANS AND SYMBOLS | 14004 – PUMP FLOW TEST |
| 13005 – BASICS OF SYSTEM LAYOUT | 14005 – HIGH PILED STORAGE |
| 13006 – CLASSIFICATION OF OCCUPANCIES | 14006 – RACK STORAGE |
| 13007 – WATER SUPPLY REQUIREMENTS | 14007 – SPRINKLER SYSTEM MAINTENANCE |
| 13008 – SYSTEM CONNECTIONS | 14009 – STANDPIPE SYSTEMS |
| 13009 – SYSTEM PIPING CONFIGURATIONS, SCHEDULES AND SIZES | 14010 – FIRE PUMPS AND SYSTEMS |
| 13010 – REQUIREMENTS OF SPACING | 14011 – STORAGE TANKS |
| 13011 – SPRINKLER LOCATION AND POSITION | 14012 – ALARMS AND SYSTEM SUPERVISION |
| 13012 – PIPE JOINING TECHNIQUES AND FITTINGS | 14013 – FUNDAMENTALS OF FIRE EXTINGUISHMENT |
| 13013 – PIPE HANGERS AND HANGING | 14016 – SURVEYS FOR FIRE PROTECTION |
| 13014 – WET AND DRY SYSTEMS | 15005 – SHOP AND ERECTION DRAWINGS |
| 13015 – HYDRAULIC CALCULATIONS OF SYSTEMS | 15007 – SYSTEM ACCEPTANCE TESTS |
| 13016 – UNDERGROUND PIPING | 15016 – HYDRAULIC DESIGN AREA |

3. Combination of all Fire Suppression System Class IIIa thru IIIe Certification Exams (FSS Class IIIa thru IIIe Exams)

(Note 2)

To meet the Exam Requirements for FSS Class I, the applicant must successfully complete all 43 required NICET work elements for FSS Class IIIa thru IIIe. The 43 work elements required are as follows:

| | |
|--|---|
| 51001 – SIMPLE PLANS AND SPECIFICATIONS | 54014 – INERGEN (IG- 541) |
| 51002 – NFPA STANDARDS | 54015 – FM-200 (HFC-227ea) |
| 51003 – SPRINKLER SUPPRESSION SYSTEMS | 54016 – FE-13 (HFC-23) |
| 51005 – STANDARD SYMBOLS | 54017 – ROOM INTERGRITY/FAN TESTING |
| 52004 – LAYOUT SIMPLE DESIGNS | 54018 – ENGINEERING DRAWINGS AND SUBMITTALS |
| 53002 – HAZARD ANALYSIS | 55001 – CONSTRUCTION PLANS |
| 53003 – DETECTION METHODS | 55003 – SYSTEM PIPING REQUIREMENTS |
| 53004 – FUNDAMENTALS OF FIRE EXTINGUISHMENT | 55004 – NOZZLE AND TANK LOCATION |
| 53005 – EXTINGUISHING AGENTS I | 55011 – FINAL ACCEPTANCE TEST FOR AHJ |
| 53006 – SMOKE-SENSING DETECTORS | 55012 – FIRE RISK ASSESSMENT |
| 53007 – ELECTRICAL INSTALLATION STANDARDS | 56001 – HEAT-SENSING PROTECTION SYSTEMS |
| 53008 – SPECIAL HAZARDS SYSTEMS INSPECTION | 56002 – SMOKE-SENSING PROTECTION SYSTEMS |
| 53010 – HEAT-SENSING DETECTORS | 56003 – FLAME-SENSING PROTECTION SYSTEMS |
| 53011 – FOAM WATER I | 56004 – FIRE DETECTING SYSTEMS |
| 53012 – CARBON DIOXIDE I | 56005 – FOAM WATER II |
| 53016 – INTERCONNECTION WITH EXTINGUISHING SYSTEMS | 56006 – HALON 1301 II |
| 53017 – FIRE RISK ASSESSMENT | 56007 – CARBON DIOXIDE II |
| 54005 – FLAME DETECTORS | 56008 – DRY CHEMICAL II |
| 54006 – FIRE GAS DETECTORS | 56014 – INERGEN (IG-541) |
| 54007 – HALON 1301 I | 56015 – FE-13 (HFC-23) |
| 54008 – DRY CHEMICAL I | 56016 – FM-200 (HFC-227ea) |
| 54011 – VISUAL INSPECTION OF CYLINDERS | |

Section 3 – Reference Material

| | |
|-------------|---|
| SFPR | Delaware State Fire Prevention Regulations |
| NFPA 11 - | Standard for Foam Extinguishing Systems |
| NFPA 12 - | Standard on Carbon Dioxide Extinguishing Systems |
| NFPA 12A - | Standard on Halon 1301 Extinguishing Systems |
| NFPA 13 - | Standard for the Installation of Sprinkler Systems |
| NFPA 13D - | Sprinkler Systems in One and Two Family Dwellings and Manufactured Homes |
| NFPA 13R - | Sprinkler Systems in Residential Occupancies Up To and Including Four Stories in Height |
| NFPA 14 - | Standard for Standpipe, Private Hydrant and Hose Systems |
| NFPA 16 - | Standard for Foam-Water Sprinkler Systems and Foam Water Spray Systems |
| NFPA 17 - | Standard for Dry Chemical Extinguishing Systems |
| NFPA 17A - | Standard on Wet Chemical Extinguishing Systems |
| NFPA 20 - | Standard for the Installation of Stationary Fire Pumps for Fire Protection |
| NFPA 22 - | Standard for Water Tanks for Private Fire Protection |
| NFPA 24 - | Standard for Installation of Private Fire Service Mains and Their Appurtenances |
| NFPA 25 - | Inspection, Testing and Maintenance of Water Based Fire Protection Systems |
| NFPA 70 - | National Electric Code |
| NFPA 72 - | National Alarm Code |
| NFPA 75 - | Electronic Computer/Data Processing Equipment |
| NFPA 101 - | Life Safety Code |
| NFPA 170 - | Fire Safety Symbols |
| NFPA 409 - | Standard on Aircraft Hangars |
| NFPA 750 - | Water Mist Fire Protection Systems |
| NFPA 2001 - | Standard on Clean Agent Fire Extinguishing Systems |

See the NICET Sprinkler Systems and Special Hazards Program Detail Manuals for additional suggested references.

Note 1 – NICET Certification to Level III in Fire Protection Engineering Technology, subfield of Automatic Sprinkler System Layout, will be considered an equivalent to the FSS Class II Exam.

Note 2 – NICET Certification to Level III in Fire Protection Engineering Technology subfield of Special Hazards System Layout, will be considered an equivalent to the FSS Class III Exams.

CLASS II

FIRE SUPPRESSION SYSTEM CERTIFICATE EXAMINATIONS

[Sprinkler and Standpipe Systems]

Section 1 – Scope of work which may be performed

A Class II Fire Suppression System Certificate will allow the certificate holder to design, prepare technical documents, maintain, and install sprinkler and standpipe systems beginning at the point where the water supply is used exclusively for the fire suppression system.

Section 2 – Examination Requirements

1. State Fire Prevention Regulations Examination (SFPR Exam)

The State Fire Prevention Regulations Exam is based on the current edition of the State Fire Prevention Regulations. The purpose of this exam is to test for knowledge of the Delaware State Fire Prevention Regulations.

2. Fire Suppression System Class II Certification Examination (FSS Class II Exam) (Note 1)

The Fire Suppression System Class II Certificate Exam is an exam consisting of questions from the following 37 NICET work elements. Successful completion of this exam requires passing all 37 work elements.

| | |
|---|---|
| 11001 – PLANS, SPECIFICATIONS AND CONTRACTS | 13016 – UNDERGROUND PIPING |
| 11002 – LAYOUT SIMPLE DESIGNS | 13017 – BUILDING CODES |
| 11003 – NFPA STANDARDS | 13023 – SPECIAL SPRINKLERS |
| 11004 – BASICS OF SPRINKLER SYSTEMS | 13024 – WATER FLOW TEST |
| 11005 – BASIC MATERIALS AND COMPONENTS | 13025 – FUNDAMENTALS OF HYDRAULICS |
| 13001 – CONSTRUCTION PLANS | 14002 – SELECTION OF FIRE PUMPS |
| 13002 – FIRE PROTECTION PLANS AND SYMBOLS | 14004 – PUMP FLOW TEST |
| 13005 – BASICS OF SYSTEM LAYOUT | 14005 – HIGH PILED STORAGE |
| 13006 – CLASSIFICATION OF OCCUPANCIES | 14006 – RACK STORAGE |
| 13007 – WATER SUPPLY REQUIREMENTS | 14007 – SPRINKLER SYSTEM MAINTENANCE |
| 13008 – SYSTEM CONNECTIONS | 14009 – STANDPIPE SYSTEMS |
| 13009 – SYSTEM PIPING CONFIGURATIONS, SCHEDULES AND SIZES | 14010 – FIRE PUMPS AND SYSTEMS |
| 13010 – REQUIREMENTS OF SPACING | 14011 – STORAGE TANKS |
| 13011 – SPRINKLER LOCATION AND POSITION | 14012 – ALARMS AND SYSTEM SUPERVISION |
| 13012 – PIPE JOINING TECHNIQUES AND FITTINGS | 14013 – FUNDAMENTALS OF FIRE EXTINGUISHMENT |
| 13013 – PIPE HANGERS AND HANGING | 14016 – SURVEYS FOR FIRE PROTECTION |
| 13014 – WET AND DRY SYSTEMS | 15005 – SHOP AND ERECTION DRAWINGS |
| 13015 – HYDRAULIC CALCULATIONS OF SYSTEMS | 15007 – SYSTEM ACCEPTANCE TESTS |
| | 15016 – HYDRAULIC DESIGN AREA |

Section 3 – Reference Material

| | |
|------------|---|
| SFPR | Delaware State Fire Prevention Regulations |
| NFPA 13 - | Standard for the Installation of Sprinkler Systems |
| NFPA 14 - | Standard for Standpipe, Private Hydrant and Hose Systems |
| NFPA 20 - | Standard for the Installation of Stationary Fire Pumps for Fire Protection |
| NFPA 22 - | Standard for Water Tanks for Private Fire Protection |
| NFPA 24 - | Standard for Installation of Private Fire Service Mains and Their Appurtenances |
| NFPA 25 - | Inspection, Testing and Maintenance of Water Based Fire Protection Systems |
| NFPA 72 - | National Alarm Code |
| NFPA 101 - | Life Safety Code |
| NFPA 170 - | Fire Safety Symbols |

See the NICET Sprinkler Systems Program Detail Manual for additional suggested references.

Note 1 – NICET Certification to Level III in Fire Protection Engineering Technology, subfield of Automatic Sprinkler System Layout, will be considered an equivalent to the FSS Class II Exam.

CLASS IIIa

FIRE SUPPRESSION SYSTEM CERTIFICATE [Engineered CO2 Fire Suppression Systems]

Section 1 – Scope of work which may be performed

A Class IIIa Fire Suppression System Certificate will allow the certificate holder to prepare technical documents, install, inspect, test and maintain engineered carbon dioxide fire suppression systems.

Section 2 – Examination Requirements

1. State Fire Prevention Regulations Examination (SFPR Exam)

The State Fire Prevention Regulations Exam is based on the current edition of the State Fire Prevention Regulations. The purpose of this exam is to test for knowledge of the Delaware State Fire Prevention Regulations.

2. Fire Suppression System Class IIIa Certification Examination (FSS Class IIIa Exam)

(Note 2)

The Fire Suppression System Class IIIa Certificate Exam is an exam consisting of questions from the following 27 NICET work elements. Successful completion of this exam requires passing all 27 work elements.

| | |
|--|---|
| 51001 – SIMPLE PLANS AND SPECIFICATIONS | 53012 – CARBON DIOXIDE I |
| 51002 – NFPA STANDARDS | 54005 – FLAME DETECTORS |
| 51003 – SPRINKLER SUPPRESSION SYSTEMS | 54006 – FIRE GAS DETECTORS |
| 51005 – STANDARD SYMBOLS | 54018 – ENGINEERING DRAWINGS AND SUBMITTALS |
| 52004 – LAYOUT SIMPLE DESIGNS | 55001 – CONSTRUCTION PLANS |
| 53002 – HAZARD ANALYSIS | 55003 – SYSTEM PIPING REQUIREMENTS |
| 53003 – DETECTION METHODS | 55004 – NOZZLE AND TANK LOCATION |
| 53004 – FUNDAMENTALS OF FIRE EXTINGUISHMENT | 55011 – FINAL ACCEPTANCE TEST FOR AHJ |
| 53005 – EXTINGUISHING AGENTS I | 56001 – HEAT- SENSING PROTECTION SYSTEMS |
| 53006 – SMOKE-SENSING DETECTORS | 56002 – SMOKE-SENSING PROTECTION SYSTEMS |
| 53007 – ELECTRICAL INSTALLATION STANDARDS | 56003 – FLAME- SENSING PROTECTION SYSTEMS |
| 53008 – SPECIAL HAZARDS SYSTEMS INSPECTION | 56004 – FIRE DETECTING SYSTEMS |
| 53010 – HEAT-SENSING DETECTORS | 56007 – CARBON DIOXIDE II |
| 53016 – INTERCONNECTION WITH EXTINGUISHING SYSTEMS | |

Section 3 – Reference Materials

| | |
|-------------|--|
| SFPR | Delaware State Fire Prevention Regulations |
| NFPA 11 - | Standard for Foam Extinguishing Systems |
| NFPA 12 - | Standard on Carbon Dioxide Extinguishing Systems |
| NFPA 12A - | Standard on Halon 1301 Extinguishing Systems |
| NFPA 13 - | Standard for the Installation of Sprinkler Systems |
| NFPA 17 - | Standard for Dry Chemical Extinguishing Systems |
| NFPA 17A - | Standard on Wet Chemical Extinguishing Systems |
| NFPA 70 - | National Electric Code |
| NFPA 72 - | National Alarm Code |
| NFPA 75 - | Electronic Computer/Data Processing Equipment |
| NFPA 101 - | Life Safety Code |
| NFPA 170 - | Fire Safety Symbols |
| NFPA 409 - | Standard on Aircraft Hangars |
| NFPA 750 - | Water Mist Fire Protection Systems |
| NFPA 2001 - | Standard on Clean Agent Fire Extinguishing Systems |

See the NICET Special Hazards systems Program Detail Manual for additional suggested references

Note 2 – NICET Certification to Level III in Fire Protection Engineering Technology, subfield of Special Hazards System Layout, will be considered an equivalent to the FSS Class III Exams.

CLASS IIIb
FIRE SUPPRESSION SYSTEM CERTIFICATE
[Engineered Clean Agent Suppression Systems]

Section 1 – Scope of work which may be performed

A Class IIIb Fire Suppression System Certificate will allow the certificate holder to prepare technical documents, install, inspect, test and maintain engineered Clean Agent fire suppression systems.

Section 2 Examination Requirements

1. State Fire Prevention Regulations Examination (SFPR Exam)

The State Fire Prevention Regulations Exam is based on the current edition of the State Fire Prevention Regulations. The purpose of this exam is to test for knowledge of the Delaware State Fire Prevention Regulations.

2. Fire Suppression System Class IIIb Certification Examination (FSS Class IIIb Exam)

(Note 2)

The Fire Suppression System Class IIIb Certificate Exam is an exam consisting of questions from the following 35 NICET work elements. Successful completion of this exam passing all 35 work elements.

| | |
|--|---|
| 51001 – SIMPLE PLANS AND SPECIFICATIONS | 54014 – INERGEN (IG– 541) |
| 51002 – NFPA STANDARDS | 54015 – FM-200 (HFC-227ea) |
| 51003 – SPRINKLER SUPPRESSION SYSTEMS | 54016 – FE-13 (HFC-23) |
| 51005 – STANDARD SYMBOLS | 54017 – ROOM INTERGRITY/FAN TESTING |
| 52004 – LAYOUT SIMPLE DESIGNS | 54018 – ENGINEERING DRAWINGS AND SUBMITTALS |
| 53002 – HAZARD ANALYSIS | 55001 – CONSTRUCTION PLANS |
| 53003 – DETECTION METHODS | 55003 – SYSTEM PIPING REQUIREMENTS |
| 53004 – FUNDAMENTALS OF FIRE EXTINGUISHMENT | 55004 – NOZZLE AND TANK LOCATION |
| 53005 – EXTINGUISHING AGENTS I | 55011 – FINAL ACCEPTANCE TEST FOR AN AHJ |
| 53006 – SMOKE-SENSING DETECTORS | 56001 – HEAT-SENSING PROTECTION SYSTEMS |
| 53007 – ELECTRICAL INSTALLATION STANDARDS | 56002 – SMOKE-SENSING PROTECTION SYSTEMS |
| 53008 – SPECIAL HAZARDS SYSTEMS INSPECTION | 56003 – FLAME-SENSING PROTECTION SYSTEMS |
| 53010 – HEAT-SENSING DETECTORS | 56004 – FIRE DETECTING SYSTEMS |
| 53016 – INTERCONNECTION WITH EXTINGUISHING SYSTEMS | 56006 – HALON 1301 II |
| 54005 – FLAME DETECTORS | 56014 – INERGEN (IG-541) |
| 54006 – FIRE GAS DETECTORS | 56015 – FE-13 (HFC-23) |
| 54007 – HALON 1301 I | 56016 – FM-200 (HFC-227ea) |
| 54011 – VISUAL INSPECTION OF CYLINDERS | |

Section 3 – Reference Materials

| | |
|-------------|--|
| SFPR | Delaware State Fire Prevention Regulations |
| NFPA 11 - | Standard for Foam Extinguishing Systems |
| NFPA 12 - | Standard on Carbon Dioxide Extinguishing Systems |
| NFPA 12A - | Standard on Halon 1301 Extinguishing Systems |
| NFPA 13 - | Standard for the Installation of Sprinkler Systems |
| NFPA 17 - | Standard for Dry Chemical Extinguishing Systems |
| NFPA 17A - | Standard on Wet Chemical Extinguishing Systems |
| NFPA 70 - | National Electric Code |
| NFPA 72 - | National Alarm Code |
| NFPA 75 - | Electronic Computer/Data Processing Equipment |
| NFPA 101 - | Life Safety Code |
| NFPA 170 - | Fire Safety Symbols |
| NFPA 409 - | Standard on Aircraft Hangars |
| NFPA 750 - | Water Mist Fire Protection Systems |
| NFPA 2001 - | Standard on Clean Agent Fire Extinguishing Systems |

See the NICET Special Hazards Systems Program Detail Manual for additional suggested

Note 2 – NICET Certification to Level III in Fire Protection Engineering Technology, subfield of Special Hazards System Layout, will be considered an equivalent to the FSS Class III Exams.

CLASS IIIc
FIRE SUPPRESSION SYSTEM CERTIFICATE
[Engineered Foam Fire Suppression Systems]

Section 1 – Scope of work which may be performed

A Class IIIc Fire Suppression System Certificate will allow the certificate holder to design, prepare technical documents, install, inspect, test and maintain engineered foam fire suppression systems.

Section 2 – Examination Requirements

1. State Fire Prevention Regulations Examination (SFPR Exam)

The State Fire Prevention Regulations Exam is based on the current edition of the State Fire Prevention Regulations. The purpose of this exam is to test for knowledge of the Delaware State Fire Prevention Regulations.

2. Fire Suppression System Class IIIc Certificate Examination (FSS IIIc Exam)
(Note 2)

The Fire Suppression System Class IIIc Certificate Exam is an exam consisting of questions from the following 25 NICET work elements. Successful completion of this exam requires passing all 25 work elements.

| | |
|---|--|
| 51001 – SIMPLE PLANS AND SPECIFICATIONS | 53011 – FOAM WATER I |
| 51002 – NFPA STANDARDS | 53016 – INTERCONNECTION WITH EXTINGUISHING SYSTEMS |
| 51003 – SPRINKLER SUPPRESSION SYSTEMS | 54005 – FLAME DETECTORS |
| 51005 – STANDARD SYMBOLS | 54006 – FIRE GAS DETECTORS |
| 52004 – LAYOUT SIMPLE DESIGNS | 55001 – CONSTRUCTION PLANS |
| 53002 – HAZARD ANALYSIS | 55003 – SYSTEM PIPING REQUIREMENTS |
| 53003 – DETECTION METHODS | 55004 – NOZZLE AND TANK LOCATION |
| 53004 – FUNDAMENTALS OF FIRE EXTINGUISHMENT | 56001 – HEAT-SENSING PROTECTION SYSTEMS |
| 53005 – EXTINGUISHING AGENTS I | 56002 – SMOKE-SENSING PROTECTION SYSTEMS |
| 53006 – SMOKE-SENSING DETECTORS | 56003 – FLAME-SENSING PROTECTION SYSTEMS |
| 53007 – ELECTRICAL INSTALLATION STANDARDS | 56004 – FIRE DETECTING SYSTEMS |
| 53008 – SPECIAL HAZARDS SYSTEMS INSPECTION | 56005 – FOAM WATER II |
| 53010 – HEAT-SENSING DETECTORS | |

Section 3 – Reference Materials

| | |
|-------------|--|
| SFPR | Delaware State Fire Prevention Regulations |
| NFPA 11 - | Standard for Foam Extinguishing Systems |
| NFPA 12 - | Standard on Carbon Dioxide Extinguishing Systems |
| NFPA 12A - | Standard on Halon 1301 Extinguishing Systems |
| NFPA 13 - | Standard for the Installation of Sprinkler Systems |
| NFPA 16 - | Standard for Foam-Water Sprinkler Systems and Foam Water Spray Systems |
| NFPA 17 - | Standard for Dry Chemical Extinguishing Systems |
| NFPA 17A - | Standard on Wet Chemical Extinguishing Systems |
| NFPA 70 - | National Electric Code |
| NFPA 72 - | National Alarm Code |
| NFPA 75 - | Electronic Computer/Data Processing Equipment |
| NFPA 101 - | Life Safety Code |
| NFPA 170 - | Fire Safety Symbols |
| NFPA 409 - | Standard on Aircraft Hangars |
| NFPA 750 - | Water Mist Fire Protection Systems |
| NFPA 2001 - | Standard on Clean Agent Fire Extinguishing Systems |

See the NICET Special Hazards Systems Program Detail Manual for additional suggested references.

Note 2 – NICET Certification to Level III in Fire Protection Engineering Technology, sub field of Special Hazards System Layout, will be considered an equivalent to the FSS Class III Exams.

CLASS III_d
FIRE SUPPRESSION SYSTEM CERTIFICATE
[Engineered Dry Chemical]

Section 1 – Scope of work which may be performed

A Class III_d Fire Suppression System Certificate will allow the certificate holder to design, prepare technical documents, install, inspect, test and maintain engineered dry chemical fire suppression systems

Section 2 – Examination Requirements

1. State Fire Prevention Regulations Examination (SFPR Exam)

The State Fire Prevention Regulations Exam is based on the current edition of the State Fire Prevention Regulations. The purpose of this exam is to test for knowledge of the Delaware State Fire Prevention Regulations.

2. Fire Suppression System Class III_d Certification Examination (FSS Class III_d Exam)
(Note 2)

The Fire Suppression System Class III_d Certificate Exam is an exam consisting of questions from the following 25 NICET work elements. Successful completion of this exam requires passing all 25 work elements.

| | |
|---|--|
| 51001 – SIMPLE PLANS AND SPECIFICATIONS | 53016 – INTERCONNECTION WITH EXTINGUISHING SYSTEMS |
| 51002 – NFPA STANDARDS | 54005 – FLAME DETECTORS |
| 51003 – SPRINKLER SUPPRESSION SYSTEMS | 54006 – FIRE GAS DETECTORS |
| 51005 – STANDARD SYMBOLS | 54008 – DRY CHEMICAL I |
| 52004 – LAYOUT SIMPLE DESIGNS | 55001 – CONSTRUCTION PLANS |
| 53002 – HAZARD ANALYSIS | 55003 – SYSTEM PIPING REQUIREMENTS |
| 53003 – DETECTION METHODS | 55004 – NOZZLE AND TANK LOCATION |
| 53004 – FUNDAMENTALS OF FIRE EXTINGUISHMENT | 56001 – HEAT-SENSING PROTECTION SYSTEMS |
| 53005 – EXTINGUISHING AGENTS I | 56002 – SMOKE-SENSING PROTECTION SYSTEMS |
| 53006 – SMOKE-SENSING DETECTORS | 56003 – FLAME-SENSING PROTECTION SYSTEMS |
| 53007 – ELECTRICAL INSTALLATION STANDARDS | 56004 – FIRE DETECTING SYSTEMS |
| 53008 – SPECIAL HAZARDS SYSTEMS INSPECTION | 56008 – DRY CHEMICAL II |
| 53010 – HEAT-SENSING DETECTORS | |

Section 3 – Reference Materials

| | |
|-------------|--|
| SFPR | Delaware State Fire Prevention Regulations |
| NFPA 11 - | Standard for Foam Extinguishing Systems |
| NFPA 12 - | Standard on Carbon Dioxide Extinguishing Systems |
| NFPA 12A - | Standard on Halon 1301 Extinguishing Systems |
| NFPA 13 - | Standard for the Installation of Sprinkler Systems |
| NFPA 17 - | Standard for Dry Chemical Extinguishing Systems |
| NFPA 17A - | Standard on Wet Chemical Extinguishing Systems |
| NFPA 70 - | National Electric Code |
| NFPA 72 - | National Alarm Code |
| NFPA 75 - | Electronic Computer/Data Processing Equipment |
| NFPA 101 - | Life Safety Code |
| NFPA 170 - | Fire Safety Symbols |
| NFPA 409 - | Standard on Aircraft Hangars |
| NFPA 750 - | Water Mist Fire Protection Systems |
| NFPA 2001 - | Standard on Clean Agent Fire Extinguishing Systems |

See the NICET Special Hazards Systems Program Detail Manual for additional suggested

Note 2 – NICET Certification to Level III in Fire Protection Engineering Technology, subfield of Special Hazards System Layout, will be considered an equivalent to the FSS Class III Exams.

CLASS IIIe
FIRE SUPPRESSION SYSTEM CERTIFICATE
[Engineered Water Mist]

Section 1 – Scope of work which may be performed

A Class IIIe Fire Suppression System Certificate will allow the certificate holder to design, prepare technical documents, install, inspect, test and maintain engineered water mist fire suppression systems

Section 2 – Examination Requirements

1. State Fire Prevention Regulations Examination (SFPR Exam)

The State Fire Prevention Regulations Exam is based on the current edition of the State Fire Prevention Regulations. The purpose of this exam is to test for knowledge of the Delaware State Fire Prevention Regulations.

2. Fire Suppression System Class IIIe Certification Examination (FSS Class IIIe Exam)
(Note 2)

The Fire Suppression System Class IIIe Certificate Exam is an exam consisting of questions from the following 27 NICET work elements. Successful completion of this exam requires passing all 27 work elements.

| | |
|--|---|
| 51001 – SIMPLE PLANS AND SPECIFICATIONS | 53017 – FIRE RISK ASSESSMENT |
| 51002 – NFPA STANDARDS | 54005 – FLAME DETECTORS |
| 51003 – SPRINKLER SUPPRESSION SYSTEMS | 54006 – FIRE GAS DETECTORS |
| 51005 – STANDARD SYMBOLS | 54018 – ENGINEERING DRAWINGS AND SUBMITTALS |
| 52004 – LAYOUT SIMPLE DESIGNS | 55001 – CONSTRUCTION PLANS |
| 53002 – HAZARD ANALYSIS | 55003 – SYSTEM PIPING REQUIREMENTS |
| 53003 – DETECTION METHODS | 55004 – NOZZLE AND TANK LOCATION |
| 53004 – FUNDAMENTALS OF FIRE EXTINGUISHMENT | 55011 – FINAL ACCEPTANCE TEST FOR AN AHJ |
| 53005 – EXTINGUISHING AGENTS I | 55012 – FIRE RISK ASSESSMENT |
| 53006 – SMOKE-SENSING DETECTORS | 56001 – HEAT-SENSING PROTECTION SYSTEMS |
| 53007 – ELECTRICAL INSTALLATION STANDARDS | 56002 – SMOKE-SENSING PROTECTION SYSTEMS |
| 53008 – SPECIAL HAZARDS SYSTEMS INSPECTION | 56003 – FLAME-SENSING PROTECTION SYSTEMS |
| 53010 – HEAT-SENSING DETECTORS | 56004 – FIRE DETECTING SYSTEMS |
| 53016 – INTERCONNECTION WITH EXTINGUISHING SYSTEMS | |

Section 3 – Reference Materials

| | |
|-------------|--|
| SFPR | Delaware State Fire Prevention Regulations |
| NFPA 11 - | Standard for Foam Extinguishing Systems |
| NFPA 12 - | Standard on Carbon Dioxide Extinguishing Systems |
| NFPA 12A - | Standard on Halon 1301 Extinguishing Systems |
| NFPA 13 - | Standard for the Installation of Sprinkler Systems |
| NFPA 17 - | Standard for Dry Chemical Extinguishing Systems |
| NFPA 17A - | Standard on Wet Chemical Extinguishing Systems |
| NFPA 70 - | National Electric Code |
| NFPA 72 - | National Alarm Code |
| NFPA 75 - | Electronic Computer/Data Processing Equipment |
| NFPA 101 - | Life Safety Code |
| NFPA 170 - | Fire Safety Symbols |
| NFPA 409 - | Standard on Aircraft Hangars |
| NFPA 750 - | Water Mist Fire Protection Systems |
| NFPA 2001 - | Standard on Clean Agent Fire Extinguishing Systems |

See the NICET Special Hazards systems Program Detail Manual for additional suggested references

Note 2 – NICET Certification to Level III in Fire Protection Engineering Technology, subfield of Special Hazards System Layout, will be considered an equivalent to the FSS Class III Exams.

CLASS IV
FIRE SUPPRESSION SYSTEM CERTIFICATE
[Dwelling Sprinklers]

Section 1 – Scope of work which may be performed

A Class IV Fire Suppression System Certificate will allow the certificate holder to design, prepare technical documents, maintain, and install sprinkler systems in one- and two-family dwellings and/or manufactured homes (NFPA 13D systems).

Section 2 – Examination Requirements (SFPR Exam)

1. State Fire Prevention Regulations Examination (SFPR Exam)

The State Fire Prevention Regulations Exam is based on the current edition of the State Fire Prevention Regulations. The purpose of this exam is to test for knowledge of the Delaware State Fire Prevention Regulations.

2. Fire Suppression System Class IV Certification Examination (FSS Class IV Exam)

This Exam is based on NFPA 13D.

Section 3 – Reference Material

| | |
|------------|--|
| SFPR | State Fire Prevention Regulations |
| NFPA 13D - | Sprinkler Systems in One and Two Family Dwellings and Manufactured Homes |

CLASS V
FIRE SUPPRESSION SYSTEM CERTIFICATE
[Pre-engineered Fire Protection System]

Section 1 – Scope of work which may be performed

A Class V Fire Suppression System Certificate will allow the certificate holder to prepare technical documents, install, inspect, test and maintain pre-engineered fire protection systems.

Section 2 – Examination Requirements

1. State Fire Prevention Regulations Examination (SFPR Exam)

The State Fire Prevention Regulations Exam is based on the current edition of the State Fire Prevention Regulations. The purpose of this exam is to test for knowledge of the Delaware State Fire Prevention Regulations.

2. Fire Suppression System Class V Certification Examination (FSS Class V Exam)

A manufacturer's certification in specific systems is to be considered equivalent to a Class V Certificate in the specific category.

CLASS VIa

FIRE SUPPRESSION SYSTEM CERTIFICATE

[Testing and Inspection of Water-Based Fire Suppression]

Section 1 – Scope of work which may be performed

A Class VIa Fire Suppression System Certificate will allow the certificate holder to inspect and test water-based fire protection systems as specified in the National Fire Protection Association's National Fire Codes, for all fire suppression systems covered under Certificate Classifications II and IV.

Section 2 – Examination Requirements

1. State Fire Prevention Regulations Examination (SFPR Exam)

The State Fire Prevention Regulations Exam is based on the current edition of the State Fire Prevention Regulations. The purpose of this exam is to test for knowledge of the Delaware State Fire Prevention Regulations.

2. Fire Suppression System Class VIa Certification Examination

A minimum certification to a NICET Level II in Inspection and Testing of Water Based Fire Suppression Systems.

CLASS VIb

FIRE SUPPRESSION SYSTEM CERTIFICATE

Section 1 – Scope of work which may be performed

A Class VIb Fire Suppression System Certificate will allow the certificate holder to inspect, test and maintain service of fire suppression systems that are not water based, for all fire suppression systems covered under Certificate Classification III and performing maintenance service of water based fire protection systems, for all fire suppression systems covered under Certificate Classifications II and IV.

Section 2 – Examination Requirements

1. State Fire Prevention Regulations Examination (SFPR Exam)

The State Fire Prevention Regulations Exam is based on the current edition of the State Fire Prevention Regulations. The purpose of this exam is to test for knowledge of the Delaware State Fire Prevention Regulations.

2. Fire Suppression System Class VIb Certification Examination (FSS Class II Exam)

(Note 1, Note 2 & Note 4)

The Fire Suppression System Class VIb Certificate Exam is an exam consisting of questions from the following 37 NICET work elements. Successful completion of this exam requires successful passing of all 37 work elements.

11001 – PLANS, SPECIFICATIONS AND CONTRACTS
11002 – LAYOUT SIMPLE DESIGNS
11003 – NFPA STANDARDS
11004 – BASICS OF SPRINKLER SYSTEMS
11005 – BASIC MATERIALS AND COMPONENTS
13001 – CONSTRUCTION PLANS
13002 – FIRE PROTECTION PLANS AND SYMBOLS
13005 – BASICS OF SYSTEM LAYOUT
13006 – CLASSIFICATION OF OCCUPANCIES
13007 – WATER SUPPLY REQUIREMENTS
13008 – SYSTEM CONNECTIONS
13009 – SYSTEM PIPING CONFIGURATIONS, SCHEDULES AND SIZES
13010 – REQUIREMENTS OF SPACING
13011 – SPRINKLER LOCATION AND POSITION
13012 – PIPE JOINING TECHNIQUES AND FITTINGS
13013 – PIPE HANGARS AND HANGING
13014 – WET AND DRY SYSTEMS
13015 – HYDRAULIC CALCULATIONS OF SYSTEMS

13016 – UNDERGROUND PIPING
13017 – BUILDING CODES
13023 – SPECIAL SPRINKLERS
13024 – WATER FLOW TEST
13025 – FUNDAMENTALS OF HYDRAULICS
14002 – SELECTION OF FIRE PUMPS
14004 – PUMP FLOW TEST
14005 – HIGH PILED STORAGE
14006 – RACK STORAGE
14007 – SPRINKLER SYSTEM MAINTENANCE
14009 – STANDPIPE SYSTEMS
14010 – FIRE PUMPS AND SYSTEMS
14011 – STORAGE TANKS
14012 – ALARMS AND SYSTEM SUPERVISION
14013 – FUNDAMENTALS OF FIRE EXTINGUISHMENT
14016 – SURVEYS FOR FIRE PROTECTION
15005 – SHOP AND ERECTION DRAWINGS
15007 – SYSTEM ACCEPTANCE TESTS
15016 – HYDRAULIC DESIGN AREA

3. Combination of all Fire Suppression System Class IIIa thru IIIe Certification Exams
(FSS Class IIIa thru IIIe Exams)

(Note 2)

To meet the Exam Requirements for FSS Class I, the applicant must successfully complete all 43 required NICET work elements for FSS Class IIIa thru IIIe. The 43 work elements required are as follows:

| | |
|--|---|
| 51001 – SIMPLE PLANS AND SPECIFICATIONS | 54014 – INERGEN (IG– 541) |
| 51002 – NFPA STANDARDS | 54015 – FM-200 (HFC-227ea) |
| 51003 – SPRINKLER SUPPRESSION SYSTEMS | 54016 – FE-13 (HFC-23) |
| 51005 – STANDARD SYMBOLS | 54017 – ROOM INTERGRITY/FAN TESTING |
| 52004 – LAYOUT SIMPLE DESIGNS | 54018 – ENGINEERING DRAWINGS AND SUBMITTALS |
| 53002 – HAZARD ANALYSIS | 55001 – CONSTRUCTION PLANS |
| 53003 – DETECTION METHODS | 55003 – SYSTEM PIPING REQUIREMENTS |
| 53004 – FUNDAMENTALS OF FIRE EXTINGUISHMENT | 55004 – NOZZLE AND TANK LOCATION |
| 53005 – EXTINGUISHING AGENTS I | 55011 – FINAL ACCEPTANCE TEST FOR AHJ |
| 53006 – SMOKE-SENSING DETECTORS | 55012 – FIRE RISK ASSESSMENT |
| 53007 – ELECTRICAL INSTALLATION STANDARDS | 56001 – HEAT-SENSING PROTECTION SYSTEMS |
| 53008 – SPECIAL HAZARDS SYSTEMS INSPECTION | 56002 – SMOKE-SENSING PROTECTION SYSTEMS |
| 53010 – HEAT-SENSING DETECTORS | 56003 – FLAME-SENSING PROTECTION SYSTEMS |
| 53011 – FOAM WATER I | 56004 – FIRE DETECTING SYSTEMS |
| 53012 – CARBON DIOXIDE I | 56005 – FOAM WATER II |
| 53016 – INTERCONNECTION WITH EXTINGUISHING SYSTEMS | 56006 – HALON 1301 II |
| 53017 – FIRE RISK ASSESSMENT | 56007 – CARBON DIOXIDE II |
| 54005 – FLAME DETECTORS | 56008 – DRY CHEMICAL II |
| 54006 – FIRE GAS DETECTORS | 56014 – INERGEN (IG-541) |
| 54007 – HALON 1301 I | 56015 – FE-13 (HFC-23) |
| 54008 – DRY CHEMICAL I | 56016 – FM-200 (HFC-227ea) |
| 54011 – VISUAL INSPECTION OF CYLINDERS | |

Section 3 – Reference Material

| | |
|-------------|---|
| SFPR | Delaware State Fire Prevention Regulations |
| NFPA 11 - | Standard for Foam Extinguishing Systems |
| NFPA 12 - | Standard on Carbon Dioxide Extinguishing Systems |
| NFPA 12A - | Standard on Halon 1301 Extinguishing Systems |
| NFPA 13 - | Standard for the Installation of Sprinkler Systems |
| NFPA 13D - | Sprinkler Systems in One and Two Family Dwellings and Manufactured Homes |
| NFPA 13R - | Sprinkler Systems in Residential Occupancies Up To and Including Four Stories in Height |
| NFPA 14 - | Standard for Standpipe, Private Hydrant and Hose Systems |
| NFPA 16 - | Standard for Foam-Water Sprinkler Systems and Foam Water Spray Systems |
| NFPA 17 - | Standard for Dry Chemical Extinguishing Systems |
| NFPA 17A - | Standard on Wet Chemical Extinguishing Systems |
| NFPA 20 - | Standard for the Installation of Stationary Fire Pumps for Fire Protection |
| NFPA 22 - | Standard for Water Tanks for Private Fire Protection |
| NFPA 24 - | Standard for Installation of Private Fire Service Mains and Their Appurtenances |
| NFPA 25 - | Inspection, Testing and Maintenance of Water Based Fire Protection Systems |
| NFPA 70 - | National Electric Code |
| NFPA 72 - | National Alarm Code |
| NFPA 75 - | Electronic Computer/Data Processing Equipment |
| NFPA 101 - | Life Safety Code |
| NFPA 170 - | Fire Safety Symbols |
| NFPA 409 - | Standard on Aircraft Hangars |
| NFPA 750 - | Water Mist Fire Protection Systems |
| NFPA 2001 - | Standard on Clean Agent Fire Extinguishing Systems |

See the NICET Sprinkler Systems and Special Hazards Program Detail Manuals for additional suggested references.

Note 1 – NICET Certification to Level III in Fire Protection Engineering Technology, subfield of Automatic Sprinkler System Layout, will be considered an equivalent to the FSS Class II Exam.

Note 2 – NICET Certification to Level III in Fire Protection Engineering Technology subfield of Special Hazards System Layout, will be considered an equivalent to the FSS Class III Exams.

Note 4 – Class IV Certification will be required for those that will be inspecting, testing or maintaining fire suppression systems in one and two family dwellings.

CLASS VIIIa
FIRE SUPPRESSION SYSTEM CERTIFICATE
(RESERVED FOR IN-HOUSE LICENSEE'S)

Section 1 – Scope of work which may be performed

A Class VIIIa Fire Suppression System Certificate will allow the certificate holder to inspect and test wholly owned or proprietary water-based fire suppression systems. This class of certificate is for In-House Licensees.

Section 2 – Examination Requirements

1. State Fire Prevention Regulations Examination (SFPR Exam)

The State Fire Prevention Regulations Exam is based on the current edition of the State Fire Prevention Regulations. The purpose of this exam is to test for knowledge of the Delaware State Fire Prevention Regulations.

2. Fire Suppression System Class VIIIa Certification Examination

A minimum certification to a NICET Level II in Inspection and Testing of Water Based Fire Suppression Systems.

CLASS VIIIb
FIRE SUPPRESSION SYSTEM CERTIFICATE
(RESERVED FOR IN-HOUSE LICENSEE'S)

Section 1 – Scope of work which may be performed

A Class VIIIb Fire Suppression System Certificate will allow the certificate holder to inspect, test, and maintain wholly owned or proprietary fire suppression systems that are not water-based and the maintain water-based fire suppression systems. This class of certificate is for In-House Licensees.

Section 2 – Examination Requirements

1. State Fire Prevention Regulations Examination (SFPR Exam)

The State Fire Prevention Regulations Exam is based on the current edition of the State Fire Prevention Regulations. The purpose of this exam is to test for knowledge of the Delaware State Fire Prevention Regulations.

2. Fire Suppression System Class VIIIb Certification Examination (FSS Class VIIIb Exam)
(Note 1 & 4)

The Fire Suppression System Class II Certification Exam is an exam consisting of questions from the following 37 NICET work elements. Successful completion of this exam requires passing all 37 work elements.

| | |
|---|---|
| 11001 – PLANS, SPECIFICATIONS AND CONTRACTS | 13016 – UNDERGROUND PIPING |
| 11002 – LAYOUT SIMPLE DESIGNS | 13017 – BUILDING CODES |
| 11003 – NFPA STANDARDS | 13023 – SPECIAL SPRINKLERS |
| 11004 – BASICS OF SPRINKLER SYSTEMS | 13024 – WATER FLOW TEST |
| 11005 – BASIC MATERIALS AND COMPONENTS | 13025 – FUNDAMENTALS OF HYDRAULICS |
| 13001 – CONSTRUCTION PLANS | 14002 – SELECTION OF FIRE PUMPS |
| 13002 – FIRE PROTECTION PLANS AND SYMBOLS | 14004 – PUMP FLOW TEST |
| 13005 – BASICS OF SYSTEM LAYOUT | 14005 – HIGH PILED STORAGE |
| 13006 – CLASSIFICATION OF OCCUPANCIES | 14006 – RACK STORAGE |
| 13007 – WATER SUPPLY REQUIREMENTS | 14007 – SPRINKLER SYSTEM MAINTENANCE |
| 13008 – SYSTEM CONNECTIONS | 14009 – STANDPIPE SYSTEMS |
| 13009 – SYSTEM PIPING CONFIGURATIONS, SCHEDULES AND SIZES | 14010 – FIRE PUMPS AND SYSTEMS |
| 13010 – REQUIREMENTS OF SPACING | 14011 – STORAGE TANKS |
| 13011 – SPRINKLER LOCATION AND POSITION | 14012 – ALARMS AND SYSTEM SUPERVISION |
| 13012 – PIPE JOINING TECHNIQUES AND FITTINGS | 14013 – FUNDAMENTALS OF FIRE EXTINGUISHMENT |
| 13013 – PIPE HANGERS AND HANGING | 14016 – SURVEYS FOR FIRE PROTECTION |
| 13014 – WET AND DRY SYSTEMS | 15005 – SHOP AND ERECTION DRAWINGS |
| 13015 – HYDRAULIC CALCULATIONS OF SYSTEMS | 15007 – SYSTEM ACCEPTANCE TESTS |
| | 15016 – HYDRAULIC DESIGN AREA |

3. Combination of all Fire Suppression System Class IIIa thru IIIe Certification Exams
(FSS Class IIIa thru IIIe Exams)
(Notes 2 and 3)

To meet the Exam Requirements for FSS Class I, the applicant must successfully complete all 431 required NICET work elements for FSS Class IIIa thru IIIe. The 43 work elements required are as follows:

| | |
|---|---|
| 51001 – SIMPLE PLANS AND SPECIFICATIONS | 53004 – FUNDAMENTALS OF FIRE EXTINGUISHMENT |
| 51002 – NFPA STANDARDS | 53005 – EXTINGUISHING AGENTS I |
| 51003 – SPRINKLER SUPPRESSION SYSTEMS | 53006 – SMOKE-SENSING DETECTORS |
| 51005 – STANDARD SYMBOLS | 53007 – ELECTRICAL INSTALLATION STANDARDS |
| 52004 – LAYOUT SIMPLE DESIGNS | 53008 – SPECIAL HAZARDS SYSTEMS INSPECTION |
| 53002 – HAZARD ANALYSIS | 53010 – HEAT-SENSING DETECTORS |
| 53003 – DETECTION METHODS | 53011 – FOAM WATER I |

53012 – CARBON DIOXIDE I
 53016 – INTERCONNECTION WITH EXTINGUISHING SYSTEMS
 55012 – FIRE RISK ASSESSMENT
 54005 – FLAME DETECTORS
 54006 – FIRE GAS DETECTORS
 54007 – HALON 1301 I
 54008 – DRY CHEMICAL I
 54011 – VISUAL INSPECTION OF CYLINDERS
 54014 – INERGEN (IG- 541)
 54015 – FM-200 (HFC-227ea)
 54016 – FE-13 (HFC-23)
 54017 – ROOM INTERGRITY/FAN TESTING
 54018 – ENGINEERING DRAWINGS AND SUBMITTALS
 55001 – CONSTRUCTION PLANS
 55003 – SYSTEM PIPING REQUIREMENTS

55004 – NOZZLE AND TANK LOCATION
 55011 – FINAL ACCEPTANCE TEST FOR AHJ
 55012 – FIRE RISK ASSESSMENT
 56001 – HEAT-SENSING PROTECTION SYSTEMS
 56002 – SMOKE-SENSING PROTECTION SYSTEMS
 56003 – FLAME-SENSING PROTECTION SYSTEMS
 56004 – FIRE DETECTING SYSTEMS
 56005 – FOAM WATER II
 56006 – HALON 1301 II
 56007 – CARBON DIOXIDE II
 56008 – DRY CHEMICAL II
 56014 – INERGEN (IG-541)
 56015 – FE-13 (HFC-23)
 56016 – FM-200 (HFC-227ea)

Section 3 – Reference Material

| | |
|-------------|---|
| SFPR | Delaware State Fire Prevention Regulations |
| NFPA 11 - | Standard for Foam Extinguishing Systems |
| NFPA 12 - | Standard on Carbon Dioxide Extinguishing Systems |
| NFPA 12A - | Standard on Halon 1301 Extinguishing Systems |
| NFPA 13 - | Standard for the Installation of Sprinkler Systems |
| NFPA 13D - | Sprinkler Systems in One and Two Family Dwellings and Manufactured Homes |
| NFPA 13R - | Sprinkler Systems in Residential Occupancies Up To and Including Four Stories in Height |
| NFPA 14 - | Standard for Standpipe, Private Hydrant and Hose Systems |
| NFPA 16 - | Standard for Foam-Water Sprinkler Systems and Foam Water Spray Systems |
| NFPA 17 - | Standard for Dry Chemical Extinguishing Systems |
| NFPA 17A - | Standard on Wet Chemical Extinguishing Systems |
| NFPA 20 - | Standard for the Installation of Stationary Fire Pumps for Fire Protection |
| NFPA 22 - | Standard for Water Tanks for Private Fire Protection |
| NFPA 24 - | Standard for Installation of Private Fire Service Mains and Their Appurtenances |
| NFPA 25 - | Inspection, Testing and Maintenance of Water Based Fire Protection Systems |
| NFPA 70 - | National Electric Code |
| NFPA 72 - | National Alarm Code |
| NFPA 75 - | Electronic Computer/Data Processing Equipment |
| NFPA 101 - | Life Safety Code |
| NFPA 170 - | Fire Safety Symbols |
| NFPA 409 - | Standard on Aircraft Hangars |
| NFPA 750 - | Water Mist Fire Protection Systems |
| NFPA 2001 - | Standard on Clean Agent Fire Extinguishing Systems |

See the NICET Sprinkler Systems and Special Hazards Program Detail Manuals for additional suggested references.

- Note 1** – NICET Certification to Level III in Fire Protection Engineering Technology, Subfield of Automatic Sprinkler System Layout, will be considered an equivalent to the FSS Class II Exam.
- Note 2** – NICET Certification to Level III in Fire Protection Engineering Technology, subfield of Special Hazards System Layout, will be considered an equivalent to the FSS Class III Exams.
- Note 3** – Class III Certification will not be required for those In-House Licensee's that are not inspecting, testing or maintaining special hazards systems.
- Note 4** – Class IV Certification will be required for those In-House Licensee's that will be inspecting, testing or maintaining fire suppression systems in one and two family dwellings.

SELECTED GENERAL REFERENCES

Selected General References are available from NICET and can be found on their Website @ <http://www.nicet.org/nicetmanuals/firespk.pdf> and <http://www.nicet.org/nicetmanuals/suppress.pdf> and <http://www.nicet.org/nicetmanuals/waterinsp.pdf>

In all cases, we suggest that the most current edition of the publication be used.