

Location Santa Fe Springs  
Course Course I

Spring 2022 Semester

Thursday, January 13, 2022 4 **Student Orientation - (OJT Process) & Module 18105-13 – Copper Tube Systems Part 1 of 2**  
**Zoom**  
Upon completion of this module, the trainee will be able to follow basic safety precautions for the preparation and installation of plastic pipe, identify approved types of copper pipe, calculate take-outs, set up equipment, cut, chamfer, and clean copper pipe, and check for correctness of end preparation.

Saturday, January 15, 2022 4 **Module 18105-13 – Copper Tube Systems Part 2 of 2**  
**In-Person**  
Upon completion of this module, the trainee will be able to follow basic safety precautions for the preparation and installation of plastic pipe, identify approved types of copper pipe, calculate take-outs, set up equipment, cut, chamfer, and clean copper pipe, and check for correctness of end preparation.  
**TEST # 13/LAB**

Thursday, January 20, 2022 4 **Module 18104-13 – CPVC Pipe and Fittings 1 of 2**  
**Zoom**  
Upon completion of this module, the trainee will be able to follow basic safety precautions for the preparation and installation of CPVC pipe, identify approved CPVC pipe, calculate take-outs, set up equipment, join and cure CPVC pipe, and check for correctness of end preparation.

Thursday, January 27, 2022 4 **Module 18104-13 – CPVC Pipe and Fittings 2 of 2**  
**Zoom**  
Upon completion of this module, the trainee will be able to follow basic safety precautions for the preparation and installation of CPVC pipe, identify approved CPVC pipe, calculate take-outs, set up equipment, join and cure CPVC pipe, and check for correctness of end preparation.  
**TEST # 12/LAB**

Thursday, February 3, 2022 4 **Module 00105-15 Introduction to Construction Drawings Part 1 of 3**  
**Zoom**  
Upon successful completion of this module, the trainee will be able to identify and describe various types of construction drawings (civil, architectural, structural, mechanical, plumbing/piping, electrical, fire protection); describe the purpose of the five basic components of construction drawings; explain the significance of various drawing elements, such as lines of construction, abbreviations, symbols, and grid lines; identify and describe the use of dimensions, various drawing scales, and how to use engineer's and architect's scales.

Thursday, February 10, 2022 4 **Module 00105-15 Introduction to Construction Drawings Part 2 of 3**  
**Zoom**  
Upon successful completion of this module, the trainee will be able to identify and describe various types of construction drawings (civil, architectural, structural, mechanical, plumbing/piping, electrical, fire protection); describe the purpose of the five basic components of construction drawings; explain the significance of various drawing elements, such as lines of construction, abbreviations, symbols, and grid lines; identify and describe the use of dimensions, various drawing scales, and how to use engineer's and architect's scales.

Saturday, February 12, 2022 8 **Module 00105-15 Introduction to Construction Drawings Part 3 of 3**  
**In-Person**  
Upon successful completion of this module, the trainee will be able to identify and describe various types of construction drawings (civil, architectural, structural, mechanical, plumbing/piping, electrical, fire protection); describe the purpose of the five basic components of construction drawings; explain the significance of various drawing elements, such as lines of construction, abbreviations, symbols, and grid lines; identify and describe the use of dimensions, various drawing scales, and how to use engineer's and architect's scales. **TEST# 5 /LAB**  
**Module 00106-15 Basic Rigging**  
Upon successful completion of this module, the trainee will be able to identify and describe various types of slings and how to inspect them; identify and describe how to inspect common rigging hardware; identify and describe various types of joists; and identify and describe basic rigging hitches and the related Emergency Stop hand signal.  
**TEST #6/LAB**

Thursday, February 17, 2022 4 **Module 00102-015 Introduction to Construction Math Part 1 of 3**  
**Zoom**  
Upon successful completion of this module, the trainee will be able to identify whole numbers and demonstrate how to work with them mathematically; explain how to work with fractions; describe the decimal system and explain how to work with decimals; identify various tools used to measure length and show how they are used; identify and convert units of length, weight, volume, and temperature between the Imperial and metric systems of measurement; and identify basic angles and geometric shapes and explain how to calculate their area and volume.

Thursday, February 24, 2022 4 **Module 00102-015 Introduction to Construction Math Part 2 of 3**  
Zoom  
Upon successful completion of this module, the trainee will be able to identify whole numbers and demonstrate how to work with them mathematically; explain how to work with fractions; describe the decimal system and explain how to work with decimals; identify various tools used to measure length and show how they are used; identify and convert units of length, weight, volume, and temperature between the Imperial and metric systems of measurement; and identify basic angles and geometric shapes and explain how to calculate their area and volume.  
**QUIZ/Test Review**

Thursday, March 3, 2022 4 **Module 00102-015 Introduction to Construction Math Part 3 of 3**  
Zoom  
Upon successful completion of this module, the trainee will be able to identify whole numbers and demonstrate how to work with them mathematically; explain how to work with fractions; describe the decimal system and explain how to work with decimals; identify various tools used to measure length and show how they are used; identify and convert units of length, weight, volume, and temperature between the Imperial and metric systems of measurement; and identify basic angles and geometric shapes and explain how to calculate their area and volume.  
**TEST #2**

Thursday, March 10, 2022 4 **Module 18106-13 – Underground Pipe Part 1 of 4**  
Zoom  
Upon completion of this module, the trainee will be able to identify types and properties of soil, explain excavation safety, explain sloping requirements for different types of soil, explain digging trenches, describe excavation support systems, describe types of bedding material, identify and describe types of underground pipe, describe thrust blocks and restraints, identify and describe hydrants, yard valves, hydrant houses, and associated appurtenances, explain testing, inspection, and chlorinating of underground pipe, and fill out an Underground Test Certificate.

Thursday, March 17, 2022 4 **Module 18106-13 – Underground Pipe Part 2 of 4**  
Zoom  
Upon completion of this module, the trainee will be able to identify types and properties of soil, explain excavation safety, explain sloping requirements for different types of soil, explain digging trenches, describe excavation support systems, describe types of bedding material, identify and describe types of underground pipe, describe thrust blocks and restraints, identify and describe hydrants, yard valves, hydrant houses, and associated appurtenances, explain testing, inspection, and chlorinating of underground pipe, and fill out an Underground Test Certificate.

Thursday, March 24, 2022 4 **Module 18106-13 – Underground Pipe Part 3 of 4**  
Zoom  
Upon completion of this module, the trainee will be able to identify types and properties of soil, explain excavation safety, explain sloping requirements for different types of soil, explain digging trenches, describe excavation support systems, describe types of bedding material, identify and describe types of underground pipe, describe thrust blocks and restraints, identify and describe hydrants, yard valves, hydrant houses, and associated appurtenances, explain testing, inspection, and chlorinating of underground pipe, and fill out an Underground Test Certificate.

Thursday, March 31, 2022 4 **Module 18106-13 – Underground Pipe Part 4 of 4**  
Zoom  
Upon completion of this module, the trainee will be able to identify types and properties of soil, explain excavation safety, explain sloping requirements for different types of soil, explain digging trenches, describe excavation support systems, describe types of bedding material, identify and describe types of underground pipe, describe thrust blocks and restraints, identify and describe hydrants, yard valves, hydrant houses, and associated appurtenances, explain testing, inspection, and chlorinating of underground pipe, and fill out an Underground Test Certificate.  
**TEST #14**

Saturday, April 9, 2022 4 **LAB - Module 18106-13**  
In-Person

Thursday, April 14, 2022 4 **Residential - Module 3 System Design Configurations Part 1 of 4**  
Zoom  
Upon completion of this module, the trainee will be able to identify three different piping configurations; define the meaning of a multipurpose piping system; identify basic design criteria for residential sprinkler systems outlined in industry standards such as NFPA 13D, UL 1626, and FM 2030; explain different types of sprinklers and system types approved for residential installation; identify sprinkler system components such as pipes, valves, fittings, piping support, sprinklers, and alarms; perform basic manual hydraulic calculations; identify residential construction areas requiring special applications; explain electrolysis; and describe the importance of water supplies, sources, and distribution in a fire sprinkler system.

Week of 4/18/2022 --- SPRING BREAK

Thursday, April 28, 2022

4

**Residential - Module 3 System Design Configurations Part 2 of 4**

Upon completion of this module, the trainee will be able to identify three different piping configurations; define the meaning of a multipurpose piping system; identify basic design criteria for residential sprinkler systems outlined in industry standards such as NFPA 13D, UL 1626, and FM 2030; explain different types of sprinklers and system types approved for residential installation; identify sprinkler system components such as pipes, valves, fittings, piping support, sprinklers, and alarms; perform basic manual hydraulic calculations; identify residential construction areas requiring special applications; explain electrolysis; and describe the importance of water supplies, sources, and distribution in a fire sprinkler system.

Zoom

Thursday, May 5, 2022

4

**Module 3 System Design Configurations Part 3 & Part 4 of 4**

Upon completion of this module, the trainee will be able to identify three different piping configurations; define the meaning of a multipurpose piping system; identify basic design criteria for residential sprinkler systems outlined in industry standards such as NFPA 13D, UL 1626, and FM 2030; explain different types of sprinklers and system types approved for residential installation; identify sprinkler system components such as pipes, valves, fittings, piping support, sprinklers, and alarms; perform basic manual hydraulic calculations; identify residential construction areas requiring special applications; explain electrolysis; and describe the importance of water supplies, sources, and distribution in a fire sprinkler system.

Zoom

**TEST #1**

Thursday, May 12, 2022

4

**Module 5 Special Systems and Retrofit**

Upon completion of this module, the trainee will be able to explain the need for installation of special systems, such as dry pipe and antifreeze; understand the use of pumps, identify the presence of microbiologically influenced corrosion and the hazards it presents; explain the steps of retrofitting existing structures; demonstrate routine maintenance; and identify various types of wall construction.

Zoom

**TEST #2**

**Semester Required Hours: 80**

Location All

Course III

**Spring 2022**

Thursday, January 13, 2022

4

**Student Orientation - (OJT Process) & Module 18303-13**

**Zoom**

**Water Supplies Part 1 of 4**

Upon completion of this module, the trainee will be able to recognize federal, state, and jurisdictional requirements for supply and disposal of fire sprinkler system water, identify different water supplies for automatic sprinkler systems, explain the three qualities that are critical to the water supply for fire sprinkler systems, identify types of water storage and explain their usage, describe different water main configurations, perform flow test procedures, plot residual and static pressure on a graph, read a flow test results sheet and determine the number of outlets flowed, hydrant outlet size, and static and residual pressure, fill out a flow test summary sheet, identify and describe backflow preventers and methods of installation, and identify and describe meters used in fire sprinkler systems.

Saturday, January 15, 2022

4

**Module 18303-13 – Water Supplies Part 2 of 4**

**In-Person**

Upon completion of this module, the trainee will be able to recognize federal, state, and jurisdictional requirements for supply and disposal of fire sprinkler system water, identify different water supplies for automatic sprinkler systems, explain the three qualities that are critical to the water supply for fire sprinkler systems, identify types of water storage and explain their usage, describe different water main configurations, perform flow test procedures, plot residual and static pressure on a graph, read a flow test results sheet and determine the number of outlets flowed, hydrant outlet size, and static and residual pressure, fill out a flow test summary sheet, identify and describe backflow preventers and methods of installation, and identify and describe meters used in fire sprinkler systems.

Thursday, January 20, 2022

4

**Module 18303-13 – Water Supplies Part 3 of 4**

**Zoom**

Upon completion of this module, the trainee will be able to recognize federal, state, and jurisdictional requirements for supply and disposal of fire sprinkler system water, identify different water supplies for automatic sprinkler systems, explain the three qualities that are critical to the water supply for fire sprinkler systems, identify types of water storage and explain their usage, describe different water main configurations, perform flow test procedures, plot residual and static pressure on a graph, read a flow test results sheet and determine the number of outlets flowed, hydrant outlet size, and static and residual pressure, fill out a flow test summary sheet, identify and describe backflow preventers and methods of installation, and identify and describe meters used in fire sprinkler systems.

**Test Review**

Thursday, January 27, 2022

4 **Module 18303-13 – Water Supplies Part 4 of 4**

**Zoom**

Upon completion of this module, the trainee will be able to recognize federal, state, and jurisdictional requirements for supply and disposal of fire sprinkler system water, identify different water supplies for automatic sprinkler systems, explain the three qualities that are critical to the water supply for fire sprinkler systems, identify types of water storage and explain their usage, describe different water main configurations, perform flow test procedures, plot residual and static pressure on a graph, read a flow test results sheet and determine the number of outlets flowed, hydrant outlet size, and static and residual pressure, fill out a flow test summary sheet, identify and describe backflow preventers and methods of installation, and identify and describe meters used in fire sprinkler systems.

**TEST #3**

Saturday, February 12, 2022

8 **Module 18303-13 - Water Supplies - LAB & MES / WATTS - Backflow Tests**

**In -Person**

Thursday, February 17, 2022

4 **CPVC RECERTIFICATION -**

**Zoom**

Thursday, February 24, 2022

4 **Module 18304-13 – Fire Pumps Part 1 of 6**

**Zoom**

Upon completion of this module, the trainee will be able to explain the basic components and types that make up a fire pump system, identify the NFPA standard that covers the installation of fire pumps, explain the minimum residual pressure in pounds per square inch (psi) that can be used when pumping from a municipal water supply, convert pressure ratings from psi to feet of head and vice versa, explain how to set and align a pump, discuss the different types of and requirements for fire pump controllers, discuss monitoring requirements for fire for the pumps, describe acceptance testing of fire pumps, perform a mechanical check of a fire pump system, measure the flow of a system, and identify potential causes for a malfunctioning fire pump.

Thursday, March 3, 2022

4 **Module 18304-13 – Fire Pumps Part 2 of 6**

**Zoom**

Upon completion of this module, the trainee will be able to explain the basic components and types that make up a fire pump system, identify the NFPA standard that covers the installation of fire pumps, explain the minimum residual pressure in pounds per square inch (psi) that can be used when pumping from a municipal water supply, convert pressure ratings from psi to feet of head and vice versa, explain how to set and align a pump, discuss the different types of and requirements for fire pump controllers, discuss monitoring requirements for fire for the pumps, describe acceptance testing of fire pumps, perform a mechanical check of a fire pump system, measure the flow of a system, and identify potential causes for a malfunctioning fire pump.

Thursday, March 10, 2022

4 **Module 18304-13 – Fire Pumps Part 3 of 6**

**Zoom**

Upon completion of this module, the trainee will be able to explain the basic components and types that make up a fire pump system, identify the NFPA standard that covers the installation of fire pumps, explain the minimum residual pressure in pounds per square inch (psi) that can be used when pumping from a municipal water supply, convert pressure ratings from psi to feet of head and vice versa, explain how to set and align a pump, discuss the different types of and requirements for fire pump controllers, discuss monitoring requirements for fire for the pumps, describe acceptance testing of fire pumps, perform a mechanical check of a fire pump system, measure the flow of a system, and identify potential causes for a malfunctioning fire pump.

Thursday, March 17, 2022

4 **Module 18304-13 – Fire Pumps Part 4 of 6**

**Zoom**

Upon completion of this module, the trainee will be able to explain the basic components and types that make up a fire pump system, identify the NFPA standard that covers the installation of fire pumps, explain the minimum residual pressure in pounds per square inch (psi) that can be used when pumping from a municipal water supply, convert pressure ratings from psi to feet of head and vice versa, explain how to set and align a pump, discuss the different types of and requirements for fire pump controllers, discuss monitoring requirements for fire for the pumps, describe acceptance testing of fire pumps, perform a mechanical check of a fire pump system, measure the flow of a system, and identify potential causes for a malfunctioning fire pump.

Thursday, March 24, 2022

**Zoom**

4 **Module 18304-13 – Fire Pumps Part 5 of 6**

Upon completion of this module, the trainee will be able to explain the basic components and types that make up a fire pump system, identify the NFPA standard that covers the installation of fire pumps, explain the minimum residual pressure in pounds per square inch (psi) that can be used when pumping from a municipal water supply, convert pressure ratings from psi to feet of head and vice versa, explain how to set and align a pump, discuss the different types of and requirements for fire pump controllers, discuss monitoring requirements for fire for the pumps, describe acceptance testing of fire pumps, perform a mechanical check of a fire pump system, measure the flow of a system, and identify potential causes for a malfunctioning fire pump.

**TEST Review**

Thursday, March 31, 2022

**Zoom**

4 **Module 18304-13 – Fire Pumps Part 6 of 6**

Upon completion of this module, the trainee will be able to explain the basic components and types that make up a fire pump system, identify the NFPA standard that covers the installation of fire pumps, explain the minimum residual pressure in pounds per square inch (psi) that can be used when pumping from a municipal water supply, convert pressure ratings from psi to feet of head and vice versa, explain how to set and align a pump, discuss the different types of and requirements for fire pump controllers, discuss monitoring requirements for fire for the pumps, describe acceptance testing of fire pumps, perform a mechanical check of a fire pump system, measure the flow of a system, and identify potential causes for a malfunctioning fire pump.

**TEST #4**

Saturday, April 9, 2022

8

**\*FIRE PUMP LAB TBD\*\***

**In-Person**

Thursday, April 14, 2022

4

**Fundamentals of Crew Leadership**

**Zoom**

**Week of 4/18/2021 --- SPRING BREAK**

Thursday, April 28, 2022	4	<b>Fundamentals of Crew Leadership</b>
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Thursday, May 5, 2022	4	<b>NFPA Q&amp;A Code Requirements</b>
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Thursday, May 12, 2022	4	<b>NFPA Q&amp;A Code Requirements</b>
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Thursday, May 19, 2022	4	<b>MOCK TEST - NFPA Q&amp;A Code Requirements</b>
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<b>Semester Hours</b>	<b>80</b>	
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Location **Santa Fe Springs**

Course IV

**Spring 2022 Semester**

Saturday, January 15, 2022 8 **Student Orientation - (OJT Process) & (Module 18404-13 – Introductory Skills for the Foreman Part 1 of 3)**  
Upon completion of this module, the trainee will be able to explain the foreman’s responsibilities to the project coordinating staff or project owner, explain job safety responsibilities, describe job cleanliness and material organization, explain responsibilities for project close-out, describe project layout and coordination, identify and describe the scope of project and the scope letter, describe the job specifications and project drawings, record changes on a shop drawing for as-builts, complete daily, weekly time, and progress reports, and identify and explain materials documentation.

**Module 18404-13 – Introductory Skills for the Foreman Part 2 of 3** Upon completion of this module, the trainee will be able to explain the foreman’s responsibilities to the project coordinating staff or project owner, explain job safety responsibilities, describe job cleanliness and material organization, explain responsibilities for project close-out, describe project layout and coordination, identify and describe the scope of project and the scope letter, describe the job specifications and project drawings, record changes on a shop drawing for as-builts, complete daily, weekly time, and progress reports, and identify and explain materials documentation.

**TEST Review**

Saturday, January 29, 2022 8 **Module 18404-13 – Introductory Skills for the Foreman Part 3 of 3** Upon completion of this module, the trainee will be able to explain the foreman’s responsibilities to the project coordinating staff or project owner, explain job safety responsibilities, describe job cleanliness and material organization, explain responsibilities for project close-out, describe project layout and coordination, identify and describe the scope of project and the scope letter, describe the job specifications and project drawings, record changes on a shop drawing for as-builts, complete daily, weekly time, and progress reports, and identify and explain materials documentation.

**TEST #4**

**LAB Module 18404-13 - Introductory Skills for the Foreman**

Saturday, February 12, 2022 8 **Module 18405-13 – Procedures and Documentation Part 1 of 2**  
Upon completion of this module, the trainee will be able to recognize the consequences of improper system installation, identify the five Cs of project documentation, recognize unsafe acts and conditions on a worksite, identify the hazards associated with specific tasks, discuss the procedures for responding to an accident, describe the procedures for emergency response to water damage, and explain how to handle a water damage claim.

**Module 18405-13 – Procedures and Documentation Part 2 of 2**  
Upon completion of this module, the trainee will be able to recognize the consequences of improper system installation, identify the five Cs of project documentation, recognize unsafe acts and conditions on a worksite, identify the hazards associated with specific tasks, discuss the procedures for responding to an accident, describe the procedures for emergency response to water damage, and explain how to handle a water damage claim.

**TEST #5**

Saturday, February 26, 2022

8

**Module 18405-13 – Procedures and Documentation Part 2 of 2**

Upon completion of this module, the trainee will be able to recognize the consequences of improper system installation, identify the five Cs of project documentation, recognize unsafe acts and conditions on a worksite, identify the hazards associated with specific tasks, discuss the procedures for responding to an accident, describe the procedures for emergency response to water damage, and explain how to handle a water damage claim.

**TEST #5**

**Module 18402-13 – Inspection, Testing, and Maintenance Part 1 of 4**

Upon completion of this module, the trainee will be able to describe the reasons for unsatisfactory sprinkler performance, explain initial system testing and inspections for aboveground, underground, and overhead pipe, describe the flushing process for underground piping/mains, describe the importance of periodic inspections of sprinkler systems, explain the report of inspection and how it must relate to the chapters included in *NFPA 25*, explain the difference between warranty repair and owner repair, explain the general preparations for system repair, describe the specific repair considerations for deluge and preaction systems, describe the general preparation procedures for inspection, maintenance, and repair of special systems, explain the required procedures to test all types of valves, perform a main drain test, and complete inspection and testing of water-based and wet standpipe systems and complete the required documentation.

Saturday, March 12, 2022

8

**Module 18402-13 – Inspection, Testing, and Maintenance Part 2 of 4**

Upon completion of this module, the trainee will be able to describe the reasons for unsatisfactory sprinkler performance, explain initial system testing and inspections for aboveground, underground, and overhead pipe, describe the flushing process for underground piping/mains, describe the importance of periodic inspections of sprinkler systems, explain the report of inspection and how it must relate to the chapters included in *NFPA 25*, explain the difference between warranty repair and owner repair, explain the general preparations for system repair, describe the specific repair considerations for deluge and preaction systems, describe the general preparation procedures for inspection, maintenance, and repair of special systems, explain the required procedures to test all types of valves, perform a main drain test, and complete inspection and testing of water-based and wet standpipe systems and complete the required documentation.

**Module 18402-13 – Inspection, Testing, and Maintenance Part 3 of 4** Upon completion of this module, the trainee will be able to describe the reasons for unsatisfactory sprinkler performance, explain initial system testing and inspections for aboveground, underground, and overhead pipe, describe the flushing process for underground piping/mains, describe the importance of periodic inspections of sprinkler systems, explain the report of inspection and how it must relate to the chapters included in *NFPA 25*, explain the difference between warranty repair and owner repair, explain the general preparations for system repair, describe the specific repair considerations for deluge and preaction systems, describe the general preparation procedures for inspection, maintenance, and repair of special systems, explain the required procedures to test all types of valves, perform a main drain test, and complete inspection and testing of water-based and wet standpipe systems and complete the required documentation.

**TEST Review**

Saturday, March 26, 2022 8

**Module 18402-13 – Inspection, Testing, and Maintenance Part 4 of 4**

Upon completion of this module, the trainee will be able to describe the reasons for unsatisfactory sprinkler performance, explain initial system testing and inspections for aboveground, underground, and overhead pipe, describe the flushing process for underground piping/mains, describe the importance of periodic inspections of sprinkler systems, explain the report of inspection and how it must relate to the chapters included in NFPA 25, explain the difference between warranty repair and owner repair, explain the general preparations for system repair, describe the specific repair considerations for deluge and preaction systems, describe the general preparation procedures for inspection, maintenance, and repair of special systems, explain the required procedures to test all types of valves, perform a main drain test, and complete inspection and testing of water-based and wet standpipe systems and complete the required documentation. **TEST #2**

**\*\*LAB - RIGID PIPE MACHINE REPAIR & TROUBLE\*\***

Saturday, April 9, 2022 8

**LEADERSHIP LADDER**

**Week of 4/18/2021 --- SPRING BREAK**

Saturday, April 30, 2022 8

**LEADERSHIP LADDER**

Saturday, May 14, 2022 8

**\*CALFIRE PREPARATION COURSE**

Saturday, May 21, 2022 8

**\*CALFIRE PREPARATION COURSE**

**Semester Required Hours: 80**

