Viking Seminar Information Sheet

Seminar Title:	**Sprinklers, Systems and Fire Protection Solutions**
Seminar Description:	This new 3-day program focuses on how sprinklers and systems provide unique and targeted solutions to fire protection challenges. This is an applications-driven program utilizing a dynamic combination of collaborative learning activities, hands-on labs and digital tools to drive the learning objectives.
Duration (Days):	3 days
Number of Modules:	6
Total Instructional Minutes:	1200 minutes / 20 hours (2 CEUs) (20 CPDs)
Seminar Format(s):	Lecture, Activity, Hands-on Labs and Demonstration
Participant Materials:	Participant Activity Handouts & Digital tools
Learning Outcomes:	Upon completion of this seminar the attendee will be able to: 1. Describe how fire develops and the impact of fuels loads, fuel arrangement, and location 2. Utilize digital tools to select the appropriate sprinkler to protect the occupancy or fire challenge. 3. Compare various sprinklers and explain how they address fire challenges. 4. Explain the applications of wet and dry sprinkler systems 5. Explain the applications of pre-action and deluge sprinkler systems 6. Perform system testing and troubleshooting
Assessment Method(s):	Activity Participation and Presentation

TITLE: MODULE 1: **CODES AND STANDARDS**

Duration: 90 minutes

Learning Outcomes: At the conclusion of this module participant will be able to:

1. Discuss the foundational requirements of the installation standards.
2. Compare and contrast the installation requirements from NFPA and Factory Mutual (FM).

Delivery Methods: Lecture and Discussion

Activity Descriptions:

Assessment Method(s): Participation

TITLE: MODULE 2: **ANATOMY OF A FIRE SPRINKLER**

Duration: 180 minutes

Learning Outcomes: At the conclusion of this module participant will be able to:

1. Describe and discuss the various fire challenges to fire sprinklers
2. Identify and discuss the functions of the component parts of a fire sprinkler.
3. Describe the process of testing and listing fire sprinklers

Delivery Methods: Manufacturing & R&D Tour and Sprinkler Flow Lab

Activity Descriptions: Sprinkler Worksheet

Assessment Method(s): Participation

TITLE: MODULE 3: **APPLYING FIRE SPRINKLERS**

Duration: 180 minutes

Learning Outcomes: At the conclusion of this module participant will be able to:

1. Compare the differences in sprinkler characteristics
2. Utilize digital tools to select the appropriate sprinkler to protect the occupancy or fire challenge.
3. Compare standard spray to extended coverage sprinklers
4. Identify the differences of ESFR fire sprinklers to control mode sprinklers.

Delivery Methods: Activity Driven by Sprinkler Selector and demonstration

Activity Descriptions: Sprinkler Worksheet

Assessment Method(s): Participation

TITLE: MODULE 4: **WET AND DRY SYSTEMS**

Duration: 150 minutes

Learning Outcomes: At the conclusion of this module participant will be able to:

1. Identify the characteristics of the wet and dry sprinkler system valve configurations
2. Explain the applications of wet and dry sprinkler systems
3. Explain the operational sequence of wet and dry sprinkler systems
4. Identify the parts of wet and dry sprinkler systems
5. Perform system activation and reset

Delivery Methods: Activity Driven by Configurator and Hands-on Lab, VR Lab

Activity Descriptions: Labs

Assessment Method: Perform system activation and reset

TITLE: MODULE 5: **DELUGE, PREACTION AND SPECIALTY PREACTION SYSTEMS**

Duration 240 minutes

Learning Outcomes: At the conclusion of this module the participant will be able to:

1. Identify the characteristics of the pre-action and deluge sprinkler system valve configurations.
2. Explain the applications of pre-action and deluge sprinkler systems
3. Explain the operational sequence of pre-action and deluge sprinkler systems
4. Identify the parts of pre-action and deluge sprinkler systems
5. Use the Valve Configurator

Delivery Methods: Activity Driven by Configurator and Hands-on Lab, VR Lab

Activity Descriptions: Demonstration

Assessment Method: None

TITLE: MODULE 6: **TESTING, MAINTENANCE & TROUBLESHOOTING**

Duration 360 minutes

Learning Outcomes: At the conclusion of this module the participant will be able to:

1. Utilize digital tools to troubleshoot systems
2. Identify potential problems with various system components
3. Perform repair and maintenance on system components

Delivery Methods: Activity Driven by Valve App and Hands-on Lab work.

Activity Descriptions: Hands-on troubleshooting systems and valves.

Assessment Method: Successful system operation after troubleshooting problems