

## Viking Seminar Information Sheet

<b>Seminar (Event) Title:</b>	<b>Viking Oxeo Inert Gas Extinguishing Systems</b>
<b>Seminar Description:</b>	Through discussion, activities, and interactive labs this seminar will explore the operation of the components of Nitrogen (IG-100) and Argon (IG-01) Fire suppression systems. Topics covered will include components and hardware, system applications, system limitations, nozzle requirements and how to use the “vInert” software.
<b>Prerequisite:</b>	<b>You must download the “vInert” software.</b>
<b>Duration (Days):</b>	<b>One and a half days</b>
<b>Number of Modules:</b>	<b>9</b>
<b>Total Instructional Minutes:</b>	<b>720 +/-</b>
<b>Seminar Format(s):</b>	<b>Instructor/In-Person</b>
<b>Participant Materials:</b>	<b>“vInert” Software, Animation, Oxeo Manual, Oxeo Fire Extinguishing System Guide</b>
<b>Learning Outcomes:</b>	Upon completion of this seminar the attendee will be able to: <ol style="list-style-type: none"><li>1. Identify application, safety concerns, terms in NFPA 2001, view discharge video, and system differences in pressure.</li><li>2. Navigating operational/installation manual.</li><li>3. Component for both PR and CF Oxeo systems. Basic installation of some components.</li><li>4. Test and inspection procedures per NFPA and manufactures requirements.</li><li>5. Pressure venting intro and discussion.</li><li>6. Discuss how to use the “vInert” Software for Nitrogen and Argon gas systems.</li><li>7. (Optional) Potter Panel programming</li></ol>
<b>Assessment Method(s):</b>	<b>Multiple choice and true/false questions discussion.</b>

**TITLE: MODULE 1 – Oxeo Introduction**

**Duration** (min.): 60 +/-

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

1. Meet the people/introductions, experience level, Occupation.
2. Review codes and standards
3. Identify safety concerns, toxicity, and terms in NFPA 2001.
4. Environmental impact considerations
5. Identify inert gas agent applications for each Class fire A, B, C, & D
6. Review the two agents available in the Oxeo family
7. Identify the differences in Halocarbon and Inert Gases regarding fire suppression
8. Discuss the difference between the Pressure Reducing system (PR) and the Constant Flow system (CF)

**Delivery Methods:** Instructor/In-Person

**Activity Descriptions:** PowerPoint

**Assessment Method:** Class discussion

**TITLE: MODULE 2 -Oxeo Components and Hardware**

**Duration** (min.): 30 +/-

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

1. Utilize the Oxeo manual for clean agent projects
2. Understand cylinder safety
3. Understand the characteristics of the system
4. Locate section on design of inert system
5. Locate section for commissioning and testing
6. Locate safety data sheets and technical data sheets

**Delivery Methods:** Instructor/In-Person

**Activity Descriptions:** Review Oxeo Manual

**Assessment Method:** Class discussion

**TITLE: MODULE 3 – Oxeo Components and Hardware – In Lab with Power Point**

**Duration** (min.): 60 +/-

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

1. Review the components and hardware of Oxeo PR and CF system
2. Identify these components on lab table

3. Install portion of components

**Delivery Methods:** Instructor/In-Person

**Activity Descriptions:** Hands on in the lab

**Assessment Method:** Class discussion

**TITLE: MODULE 4 – Oxeo – Test and Inspection**

**Duration** (min.): 30 +/-

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

1. Locate the NFPA 2001(2022ed) Monthly, Semi-Annual and Annual Inspections

**Delivery Methods:** Instructor/In-Person

**Activity Descriptions:** Review NFPA 2001 (2022ed)

**Assessment Method:** Class discussion

**TITLE: MODULE 5 – Pressure Venting and Room Integrity**

**Duration** (min.): 60

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

1. Discuss pressure venting preliminary calculation from design software.
2. Apply FSSA pressure venting guidelines.
3. Discuss NFPA2001 room integrity.

**Delivery Methods:** Instructor/In-Person

**Activity Descriptions:** PowerPoint

**Assessment Method:** Class discussion

**CHECK ON THE DOWNLOAD OF THE SOFTWARE, OVERVIEW OF THE TAB**

## **DAY 2**

### **TITLE: MODULE 6 – “vInert” Software Review**

**Duration** (min.): 60

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

4. Enter project data into the “vInert” software
5. The participant will also be able to complete a full design with a list of materials.

**Delivery Methods:** Instructor/In-Person

**Assessment Method:** Class discussion

### **TITLE: MODULE 7 – Oxeo Nitrogen Design Examples**

**Duration** (min.): 60

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

1. Enter project information into “vInert”
2. Describe Protected Hazard Volumes/Enclosures
3. Enter Pipe sections into “vInert”
4. Enter and select nozzles for protected hazard
5. Calculate pressure drop for protected hazard

**Delivery Methods:** Instructor/In-Person

**Activity Descriptions (if used):** Create project from the plans

**Assessment Method:** PDF Print final report from software with no errors

### **TITLE: MODULE 8 – Oxeo Final Review**

**Delivery Methods:** Instructor/In-Person

**Assessment Method(s):** Multiple choice and true/false question exam