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DUAL PURPOSE FIRE PROTECTION VALVES FOR NEW DATA CENTER CONSTRUCTION.
Johnathan Carl, CET
Victaulic
SAN ANTONIO, TX
AFSA
American Fire Sprinkler Association

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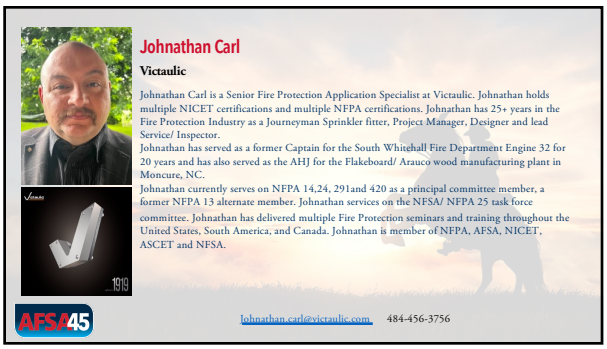
Johnathan Carl
Victaulic
Johnathan Carl is a Senior Fire Protection Application Specialist at Victaulic. Johnathan holds multiple NICET certifications and multiple NFPA certifications. Johnathan has 25+ years in the Fire Protection Industry as a Journeyman Sprinkler fitter, Project Manager, Designer and lead Service/ Inspector.
Johnathan has served as a former Captain for the South Whitehall Fire Department Engine 32 for 20 years and has also served as the AHJ for the Flakeboard/ Arauco wood manufacturing plant in Moncure, NC.
Johnathan currently serves on NFPA 14,24, 291and 420 as a principal committee member, a former NFPA 13 alternate member. Johnathan services on the NFSA/ NFPA 25 task force committee. Johnathan has delivered multiple Fire Protection seminars and training throughout the United States, South America, and Canada. Johnathan is member of NFPA, AFSA, NICET, ASCET and NFSA.
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The authority on fire, electrical, and building safety
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Agenda
Why have a Dual-Purpose valves
Benefits of Dual-Purpose valves
NFPA 241 requirements and how they influence Dual-Purpose Valves
Typical Applications
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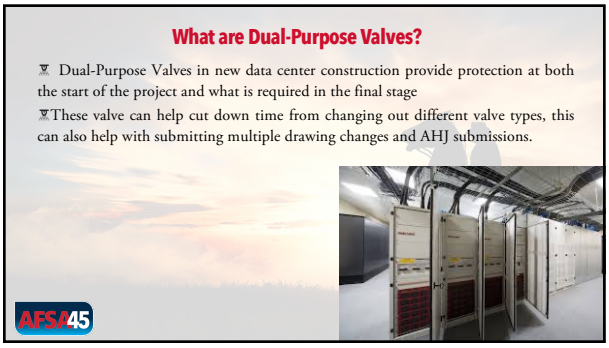
What are Dual-Purpose Valves?
Dual-Purpose Valves in new data center construction provide protection at both the start of the project and what is required in the final stage
These valve can help cut down time from changing out different valve types, this can also help with submitting multiple drawing changes and AHJ submissions.
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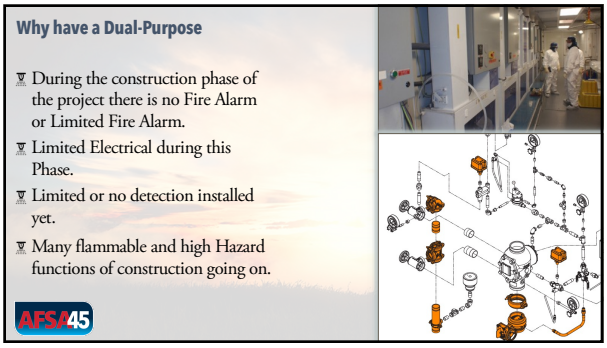
Why have a Dual-Purpose
During the construction phase of the project there is no Fire Alarm or Limited Fire Alarm.
Limited Electrical during this Phase.
Limited or no detection installed yet.
Many flammable and high Hazard functions of construction going on.
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How does a Dual-Purpose Operate

- During the construction stage of the project the valve will function as a Dry System (non-interlock).
- The Non-interlock Valve follows the guidelines of NFPA 241.
- When the project is in the final stages the valve will function as its intended pre-action designed system.

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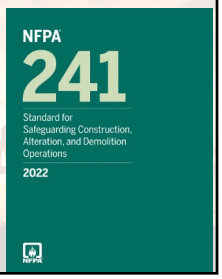
So How does this Using NFPA 241 "Standard for Safeguarding Construction, Alteration, and Demolition Operations, 2022 Edition" Help me

- A Fire Prevention Program Manager (FPPM) shall be appointed.
- What is a FPPM ??
- The **FPPM** shall be designated by the owner and be a competent person with knowledge of the applicable fire protection codes and standards, available fire protection systems, and fire inspection procedures.



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NFPA 241 Chapter 4

Sprinkler Protection

4.3.2.3.*

4.3.2.6

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NFPA 241"Standard for Safeguarding Construction, Alteration, and Demolition Operations, 2022 Edition"

A.4.1.3

The FPPM level of knowledge should be appropriate for the size and complexity of the project as follows:

- (1)
- (2)

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How do we Achieve a valve change over

- When ordering the valve consult with the manufacture of the valve
  - Can the valve be switched over
  - Are there part codes for the switch over
  - What are the valve configuration options
  - Are there instructions on how to preform the switch over

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What are the common valve configurations

- During the construction Phase
  - Non- Interlock
- Final Phase
  - Single-interlock
  - Double-interlock

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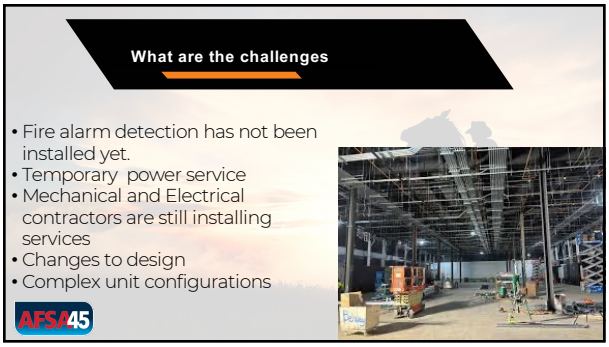
What are the challenges
• Fire alarm detection has not been installed yet.
• Temporary power service
• Mechanical and Electrical contractors are still installing services
• Changes to design
• Complex unit configurations
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How to address the challenges
Use a valve configuration that best suites your company and the project
Understand the challenges and develop a project itinerary
Communication between the FPPM, the engineering team, the contractor and their fitters in the field is valuable to achieving success.
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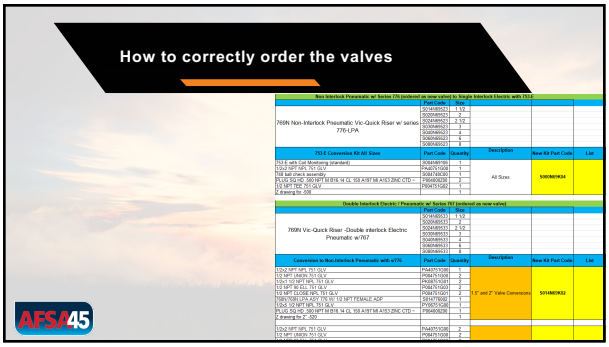
How to correctly order the valves
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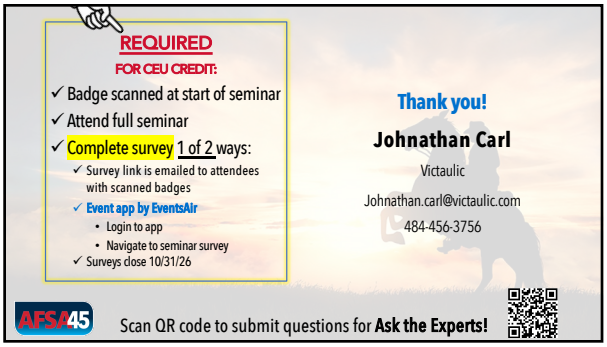
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Thank you!
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Scan QR code to submit questions for Ask the Experts!

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2027 Training Schedule

WEBINARS

1/6	Updates to NFPA 20
1/20	Calculating Pressure Reducing Hose Valves
2/3	Consumer Alert: Nitrogen in Sprinkler Systems
2/17	Reviewing Hydraulic Calculations
3/3	Updates to NFPA 13, 2028 Ed.
3/17	Updates to NFPA 13R & 13D, 2028 Eds.
4/7	Topic Coming Soon
4/21	NFPA 25: Roles & Responsibilities
5/5	Standpipe Flow Test Procedures
5/19	Storage 101
6/2	NFPA Technical Meeting - Voting Guide
6/16	Topic Coming Soon
6/30	Topic Coming Soon
7/7	Updates to NFPA 14, 2027 Edition
7/21	Adjacent Hazards & Design Methods
8/4	Acceptance Testing
8/18	Modifications to Existing Systems
9/22	Topic Coming Soon
10/6	Seismic 101
10/20	Proposed Updates to NFPA 25, 2029 Ed.
11/3	Evaluating Fire Pump Flow Tests
11/17	Top 10 Tech Reviews
12/1	Designing Water Storage Tanks
12/15	Pump Room Layout

PROGRAMS

Feb 9 - Mar 5 Apr 20 - May 14 Aug 3 - Aug 27** Oct 26 - Nov 19	Beginning Design School*
Apr 26 - May 7 Nov 1 - 12	Intermediate Design School*
Feb 8 - 10** Apr 12 - 14 Jul 12 - 14 Oct 11 - 13	Sprinkler Hydraulics Calculations Workshop
Apr 19 - 21 Oct 18 - 20	Advanced Hydraulics Calculations Workshop
Feb 11** Apr 30 Jul 23 Sep 24	Introduction to the Fire Sprinkler Industry
Mar 1 - 3 May 17 - 19 Aug 16 - 18 Oct 18 - 20**	NFPA 25 Essentials Workshop
Jun 7 - 10 Sep 20 - 23	Experienced Inspector Skills Lab
Mar 4 - 5 May 20 - 21 Aug 19 - 20 Oct 21 - 22**	NFPA 25 Fire Pump Workshop
Spring Summer Fall	ITM Inspector Development Program* *This program is 20 months.*

** Hybrid course **At General Air Products Lab, Exton, PA*

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September 8-11	Manchester Grand Hyatt San Diego, CA

For More Details Visit:
firesprinkler.org

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Dates subject to change. Programs subject to minimum registrations.

rev 9/14/2026

Virtual Instruction Path (VIP)

for Sprinkler Fitting Apprentices

Level 1 - Begins January 2027

Level 2 - Begins February 2027

Level 3 - Begins January 2027

Level 4 - Begins March 2027

www.firesprinkler.org/VIP

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HANDS-ON WORKSHOPS FOR 2027

FEATURING AFSA'S TRAINING LAB

NFPA 25 Essentials Workshop

Mar | May | Aug | Oct

Description: Understand roles, responsibilities, and NFPA 25 ITM procedures through hands-on testing of wet systems, dry systems, and fire pumps.

NFPA 25 Fire Pump Workshop

Mar | May | Aug | Oct

Description: Develop practical NFPA 25 fire pump ITM skills, including no-flow and full-flow testing, water supply graphing, and performance evaluation.

Introduction to the Fire Sprinkler Industry

Feb | Apr | Jul | Sep

Description: This course is designed for those new to the industry. An introductory, wide-ranging 8-hour course that provides a broad overview of core fire sprinkler industry concepts for those new to the field.

Experienced Inspector Skills Lab NEW

Mar | Sep

Description: Take your ITM expertise beyond the basics. Designed for experienced technicians, this course combines focused classroom instruction with hands-on system lab training to strengthen your application of current NFPA 25 inspection, testing, and maintenance requirements. Refine fire sprinkler testing practices, improve documentation, deliver more consistent service, and help reduce liability while reinforcing knowledge commonly covered on certification exams.

Learn more about AFSA's fire sprinkler lab featuring functional risers, a spray room, fire pumps, and an interactive classroom.

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