



***Society of Fire Protection
Engineers***

Mid-South Chapter

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May 19, 2009 Meeting Minutes

**Speakers – Frank Barstow, Vortex National Sales Manager
& Bruce Golden, Fire Protection Specialist**

Topic – The Victaulic Vortex System

**Location – Benjamin Hooks Central Library
3030 Poplar Ave.**

Memphis, TN 38111

Meeting Called to Order – 3:05 PM

Meeting Adjourned – 4:20 PM

The Victaulic “Vortex System” is a Hybrid System which uses a water and nitrogen injection nozzle system as the fire suppressant mechanism. Water and nitrogen are injected into specially designed emitters and form a homogeneous fluid which is expelled into the surrounding area. This system breaks down the water into particles that are less than 10 microns in size. This expelled fluid extinguishes the fire by simultaneously cooling and smothering the fire. The system can extinguish both small smoldering type fires and large fires involving both class A and B type fuels. Although the extinguishing agent is in the form of a vapor, due to the agent characteristics, this system does not require room integrity such as a gaseous fire suppression system, therefore the system can be used as direct application as well as room protection system.

The system uses nitrogen at about 25 psig and water at about 5 psig at the emitter. The nitrogen is introduced into the emitter at Mach 1 speeds creating a vortex effect as the water/nitrogen fluid is expelled from the emitter. Each emitter can cover an area of 2500 cu ft (70 cubic meters). The normal water discharge rate is 0.5 gpm (1.9 lpm) in a Data Processing Center type of occupancy and about 1.06 gpm (4 lpm) for most other type of occupancies. Normal discharge duration is designed for about 5 minutes. The system has been used in electrical cable spread rooms, power generation and turbine generator enclosures, and machine room enclosures. The manufacturer indicates it can be used in most type of applications where standard type fire extinguishing systems are traditionally used with a maximum roof height of 24 ft (maximum test performed). The system is presently approved by FM Global for machine room enclosures and turbine generator enclosures for spaces up

to 128,570 cu ft (3600 cubic meters). The system has been approved by FM Global in their test protocol #5580 and by UL using the UL test standard #2127 as a Clean Agent. Additional testing is being performed for other applications.

Major system components include a releasing panel and detection system, nitrogen and water supply system, piping, emitters, Victaulic Needle Valve and auxiliary battery supply. Due to low pressure, piping fittings can be grooved type couplings.

For additional information the following contact information may be used:

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The Chapter would like to extend many thanks to both Frank and Bruce for providing an informative and interesting presentation.

Chapter Business –

Majid and Jerry Vuoso provided a brief overview of the Chapter Technical Seminar to be provided on September 15, 2009. More information will be circulated in the near future regarding this seminar.

Majid indicated the new Chapter Web Site is now live.

Jerry asked that all individuals consider getting involved with the chapter by working on committees and considering becoming chapter officers. He indicated that during the November Business meeting , new chapter officers will be elected and the chapter needs new talent to fill these vital positions.

Minutes as recorded by Jerry Vuoso.