Fire Protection for a Changing World
Munich, Germany
April 18, 2016

New Technology for High-Challenge Warehouses
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"life of a fire from birth until its death is a most important one to be applied to industrial fire control. Very simple, what it does is to take a complex problem and break it into smaller, more definable units which can be independently attacked to reduce the threat of fire."

(Moore/Davis "IFCC")
Figure 4-1. The Life of a Fire
Control vs Suppression

Fire control

Fire suppression

The Procter & Gamble Company
2 oz. Hand Sanitizer Gel Hazard Index Test
0.31 gpm/ft² Applied Water Density
Timeline of "Combat Time"

1. Free Burning Time
2. Recognition Point
3. Permitted Burn Time
4. Detection Point
5. Transmission Time
6. Notification Point
7. Alarm Handling Time
8. Alert Point
9. Turn-Out Time
10. Get Out Point
11. Travel Time
12. Set-Up Time
13. Combat Time
14. Conat Time
Relation of Life of a Fire & Combat Time

**Figure 4-7. Combat Time**

- Ignition Point
- Recognition Point
- Detection Point
- Notification Point
- Alarm Point
- Get Out Point
- Attack Point
- Black Out Point
- Extinguishment Point

**Growth? Peak? Decline? Burnout? Control or suppression?**

**Figure 4-1. The Life of a Fire**
How do we determine size of fire at arrival time?

- Location of incident
- Smoke/steam
- Visual indication of flame remaining
- Infrared technology
- Main fire alarm panel data
- Brigade understanding of the area
- Familiarity of the location/hazard
- Send fire hose teams to area
- Guess-timate
TOMORROW.....
How will we help determine?

WATERFLOW

Use real-time data to determine the size of the fire....
Total Sprinkler head activation
What's happening in the warehouse?

Procter & Gamble Company
Sprinkler Operations vs. Flow and Steel Temperature

[Graph showing time vs. temperature and flow rate with different sprinkler operations represented by colored lines.]
Viewing Supply #: North

Current Pump Flow Rate
1,911

Water Storage Tank Capacity
73,000 gallons Design

Minutes at current flow rate
8:30

Riser Activity

Water Remaining in Tank
38,220 gallons

@Current Flow
How?

FireConnect™
THANK YOU to the TEAM....
Questions?

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