


• Bob Elliott - FMRC - CSAA 2000 - April 11, 2000



1

Agenda

- FMGlobal Infrastructure
- Primer on FMRC Placarding
- NFPA Code Requirements
- Technical Merits of Placarding
- Cost Structure

2

FMSystem is now FMGlobal

- Insurance Companies
 - ◆ Allendale
 - ◆ Arkwright
 - ◆ Protection Mutual
- Factory Mutual Companies
 - ◆ FMRC (research corp.)
 - ◆ FMEC (engineering corp.)
 - ◆ FMEA (engineering assoc.)
 - ◆ FMI (international)

3

*Bob Elliott, Sr. Project Engineer/Mgr.
Factory Mutual Research Corp.
1151 Boston-Providence Turnpike
Norwood, MA 02062*

Vocabulary

- NFPA 72 - Central Station Service
 - ◆ Certification
 - ◆ Placarded
- FMRC 3011- Standard Service
 - ◆ Listed
 - ◆ Approved

4

CS or customer?



NFPA "Central Station Service"

- Chapter - 5 - Supervising Station Fire Alarm Systems
- 2 Third Party Options (ref. 5-2.2.3)
- Certification (ref. 5-2.2.3.1)
- Placarded (ref. 5-2.2.3.2)
 - ◆ Additional text exists in chapter 1 reference 1-6.2.3.2, but is incomplete.

6

*Bob Elliott, Sr. Project Engineer/Mgr.
Factory Mutual Research Corp.
1151 Boston-Providence Turnpike
Norwood, MA 02062*

Placarded (NFPA 72-1999)

- A means to signify that the fire alarm system of a particular facility is receiving central station service in accordance with this code by a listed central station or listed fire alarm service-local company that is a part of a systematic follow-up program under the control of an independent third party listing organization.

7

NFPA 5-2.2.4

- Fire alarm system service not complying with all requirements of Section 5-2 shall not be designated as central station service.

8

A little history!

- FMRC 3011 - 1965
- NFPA 71 - 1989
 - ◆ required Certification/ Placard!
- NFPA 72 - 1993
 - ◆ combination kept this requirement!
- NFPA 72 - 1996
 - ◆ added text in Ch. 1
- NFPA 72 - 1999?
- FMRC 3011 - April 1999

9

*Bob Elliott, Sr. Project Engineer/Mgr.
Factory Mutual Research Corp.
1151 Boston-Providence Turnpike
Norwood, MA 02062*

<FM>“Central Station Service”

- Facilities
 - ◆ 5-2.3.1 & (.2) The central (subsidiary) station building or that portion of a building occupied by a central (subsidiary) station "shall conform to the construction, fire protection, restricted access, emergency lighting, and power requirements of the latest edition of ANSI/UL 827", . . .

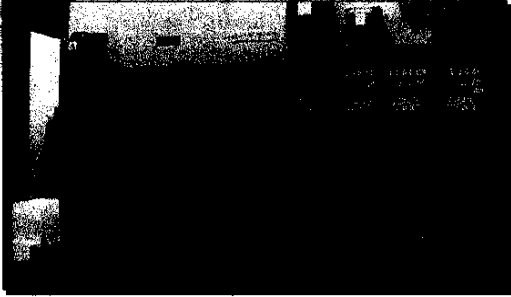
10

<FM>“Central Station Service”

- ◆ Fire Resistive Construction
- ◆ Limited/Controlled access
- ◆ Approved Receiving & Automation Equipment
- ◆ Power Supply Reliability
 - + (60 hrs bat; 4hrs bat +1gen; 15 min bat +2 gen).

11

Battery Rack



12

*Bob Elliott, Sr. Project Engineer/Mgr.
Factory Mutual Research Corp.
1151 Boston-Providence Turnpike
Norwood, MA 02062*

<FM>“Central Station Service”

- Procedures/Operations
 - ◆ 24/7 two operators at all times
 - ◆ 24/7 runner service
 - fire response within 1 hr. (50mi)
 - trouble response within 4 hr (200mi)
 - ◆ maintain serialized list of all Placarded sites
 - ◆ proper interpretation & prompt dispatch of alarm signals

13

<FM>“Central Station Service”

- Procedures/Operations
 - ◆ alarm records available & maintained for 1 yr.
 - ◆ as-builts for Placarded sites
 - battery calcs, wiring diagrams, specs, floor plans, Record of Completion!
 - ◆ test & maint procedures and records

14

<FM>“Central Station Service”

- Protected Premises
 - ◆ compatible & Approved equipment
 - ◆ standby power = 24hrs
 - ◆ signaling system supervision
 - ◆ quality of equipment & installations
 - ◆ do the as-builts match?
 - ◆ do the test records match?

15

*Bob Elliott, Sr. Project Engineer/Mgr.
Factory Mutual Research Corp.
1151 Boston-Providence Turnpike
Norwood, MA 02062*

<FM>“Central Station Service”

- Follow-up periodic re-exams of the CS by FMRC
 - ◆ 3-year cycle or annual
- Follow-up periodic site audits of the PP by FMRC, during 1st & re-exams
 - ◆ FMGlobal auditors see both Standard and Non-Standard sites.

16

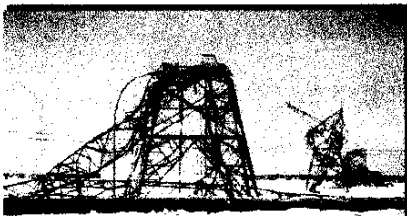
Common Mis-Conceptions

- Service is just FM insureds!
- Can't Approve Monitoring Only!
 - ◆ Full Service Central Station
 - ◆ Local Alarm Company
 - ◆ Monitoring Only Central Station

17

What Does It Buy You?

- Increased System Reliability




18

*Bob Elliott, Sr. Project Engineer/Mgr.
Factory Mutual Research Corp.
1151 Boston-Providence Turnpike
Norwood, MA 02062*

What Does It Buy You?

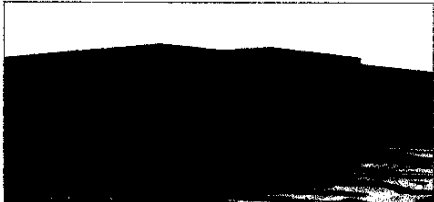
- Increased System Reliability



19

What Does It Buy You?

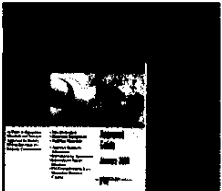
- Increased System Reliability



20

Increased marketing & recognition

- ◆ Listing in the Factory Mutual Research Approval Guide.



21

*Bob Elliott, Sr. Project Engineer/Mgr.
Factory Mutual Research Corp.
1151 Boston-Providence Turnpike
Norwood, MA 02062*

What Does It Cost You?

- Central Station Full Service = \$2,950
 - ◆ Third year Re-exams, same fee = roughly \$1,000/year
 - ◆ Annual Re-exam, \$1,525
- LoCo & MonOnlyCo = \$2,450
 - ◆ Third year Re-exam, same fee = roughly \$850/year
 - ◆ Annual Re-exam, \$1,525

22

Summary

- Better understanding of NFPA 72!
- Better understanding of FMRC!
- Better understanding of Placarding!

23

Where to get more information?

- <http://www.fmglobal.com>
- <http://global.ihs.com>
- E-mail - robert.elliott@fmglobal

24

*Bob Elliott, Sr. Project Engineer/Mgr.
Factory Mutual Research Corp.
1151 Boston-Providence Turnpike
Norwood, MA 02062*