

The Evolution of DOE Emergency Services

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Historical Perspective

- Manhattan Project/Atomic Energy Commission
 - Site Specific Decisions
 - State of the Art Equipment
 - Foundation of NFPA Standards



Post 1969 Rocky Flats Fire

- Independent Fire Safety Appraisal Program
 - Limited Scope Reviews
 - “Improved Risk” Benchmarks
 - No Documented Fire Department Expectations



Development of Governing Criteria

- DOE O 5480.7 - 1980-1993
 - No fire department expectations
- DOE O 5480.7A - 1993-1995
 - “A fully staffed, trained, and equipped fire department/brigade shall service all DOE facilities, except as determined by the Program Secretarial Officer ...”



DOE FD Expectations

- DOE O 420.1 (1995-2002), DOE O 420.1A (2002-2005), DOE O 420.1B
 - A "baseline" needs assessment that establishes the minimum required capabilities of site fire fighting forces. This includes:
 - Minimum staffing
 - Apparatus
 - Facilities
 - Equipment
 - Training
 - Fire pre-plan
 - Off-site assistance requirements
 - Procedures
 - Written pre-fire strategies, plans, and standard operating procedures to enhance the effectiveness of site fire fighting forces, where provided.



Baseline Needs Assessment Requirements

- BNA's are required for both:
 - On-site emergency services
 - Complicated by serving numerous contractors
 - Off-site emergency services
 - Unique site hazards must be addressed by contractor



Baseline Needs Assessments

- Varied Approaches Used Across DOE Complex
 - DOE Model BNA
 - Contractor developed BNA's
 - Consultant-developed BNA's
 - DOE/Contractor joint BNA's



Implementation Plans

- NFPA 1500 (1988) Health and Safety
 - Applicable to organizations that perform structural firefighting
 - Implementation/Expectations identified by code section
 - Minimum training at Fire Fighter Level I (NFPA 1001)
 - New equipment required to meet standard shall be procured by end of 1990
 - Minimum 5 personnel for interior fire fighting



Implementation Plans cont

- NFPA 1583 (1995) Medical
 - Conflict between NFPA 1582 and American Disabilities Act
 - Category A medical conditions requiring mandatory disqualification vs. evaluation to perform assigned duty
 - Requirements applicable to current and new employees
 - Site are required to have a physical fitness program
 - Physical fitness program requirements to be defined by contractor



Implementation Plans cont

- NFPA 1710 “Technical Position”
 - NFPA 1710 applicable to DOE sites that maintain a fire department
 - NFPA 1710 evaluations and DOE required BNA effort should be combined
 - Equivalencies to NFPA 1710 are to be documented



NFPA 1710 Challenges

- Travel Response Times
 - Medical (90%)
 - BLS – 4 minutes
 - ALS – 8 minutes
 - Structural (90%)
 - 4 minute initial response
 - 8 minute full response
- Staffing Considerations (+/-15)
 - IC, Operator, Attack, Support, Search, Ventilation, Aerial, IRIC (based on two story house fire).



NFPA 1710 Basics

- Authority Having Jurisdiction (AHJ) maintains written statement/policy establishing:
 - Existence of the fire department
 - Services that the fire department is required to provide
 - Basic organizational structure
 - Expected number of fire department members
 - Functions that fire department members are expected to perform



NFPA 1710 Basics cont

- The fire department organizational statement shall include:
- Service delivery objectives, including time objectives for:
 - Fire suppression
 - Emergency Medical Services
 - Special operations
- Percentage of responses that meet the time objectives.



NFPA 1710 Basics cont

- The fire department shall annually evaluate:
 - level of service/deployment delivery
 - alarm handling time
 - turnout time
 - travel time objectives
- Provide annual written report to AHJ
 - Shall explain the predictable consequences of these deficiencies
 - Address the steps that are necessary to achieve compliance with AHJ policy



Key Regulatory Driver

- 10 CFR 851
 - ... access to a fully staffed, trained, and equipped emergency response organization that is capable of responding in a timely and effective manner to site emergencies.
 - This includes meeting applicable building codes and National Fire Protection Association codes and standards.



Fundamental Fire Department Issues

- Levels of Service
- Compliance
- Budgeting
- Outsourcing



Transition – Federal/Contractor/Public

- Last De-Federalized Fire Department
 - INL 1993
- Most Recent Outsourced Fire Department
 - ETTP 2007
- Currently Contractor/Public Service Mix
 - M&O Contractor - ORNL, Y-12, Savannah River, Hanford, Argonne, Nevada Test Site
 - Public Services – ETTP, Thomas Jefferson, Lawrence Berkley, Los Alamos



Questions?

