

# **2021- NFPD Safety Assessment and Recommendations for Remediation**

## **PPE**

### **Threats**

- N95s are not fit tested
- Inability to fit test SCBA masks in-house
- No defined second set of bunker gear for use when the primary set of bunker gear is contaminated
- No recurring replacement plan or policy for structure or wildland PPE
- Inability to repair PPE in-house
- Lack of personal air-purifying respirators (PAPRs) or goggles that are functional with N95 masks for close contact with infectious patients during aerosolizing procedures (cpap, intubation, etc.)
- Not enough radios for every single “riding position” (or every member in our case)

### **Opportunities**

- 1-Year
  - Establish N95 fit testing capabilities and test all staff for N95 fit
  - Create a schematic and budget plan for continual replacement of PPE
  - Procure a fit testing machine and train staff on administration of fit testing
  - Procure repair equipment and certify staff in PPE repair
- 3-Year
  - Continue to purchase bunker gear annually and cycle gear into “reserve” status at five years of service
  - Continue to purchase wildland gear annually to replace damaged and worn gear as needed
  - Establish a large enough bank of high-quality packset radios to supply every member and include additional station reserves
- 5-Year
  - Retire all PPE after ten years of service, regardless of primary or reserve use position

# OPERATIONS

## Threats

- Incident staffing does not meet standard concerning personnel deployment and response times to fires and medical emergencies (NFPA 1710/1720 standards)
  - Occasional status 1 response
  - Unable to ALWAYS work in teams of two
  - Inability to follow “two in, two out” in IDLH environments
- Fire officers are not all trained to Standard for Fire Officer Professional Qualifications (NFPA 1021 standards)
  - FO-I certifications needed
- No NFPA 1521 Incident Safety Officer designation
  - Not enough staff trained and certified in NFPA 1521 Incident Safety Officer (ISO) standards
  - Safety Officers are not routinely appointed on scene
- No standardized hazard zone command training
- Special operations do not have defined teams & specialists
  - Skill dilution
  - Equipment neglect
- Extended turn out times for critical apparatus & personnel
  - Delayed scene size-up
  - Increased exposure to misappropriation of resources
- No incident accountability system is in place
  - No Incident accountability SOP
- No defined rehab protocol for working incidents
- RIT / RIC crews are not trained, established, or deployed for working incidents
  - No RIT SOGs
  - No RIT bags
- No SOG in place for responding to incidents involving or with the potential for violence
- No procedure or policy in place for accident investigation
  - Vehicle
  - Personal injury
- No SOGs in place for late / second arrivals to Station
  - Identifying threats: Less experienced FFs may either make inappropriate response decisions or miss out on valuable experience
  - Unclear on how expectations differ based on who is expected to arrive next
  - No system in place to keep updated information on certs and expectations (as they pertain to apparatus response)

## **Opportunities**

- **1-Year**
  - Implement scheduling software to ensure adequate minimum district coverage at all times
  - Facilitate Captain training to NFPA 1021 standards
  - Implement Blue Card hazard zone management protocols
  - Facilitate Incident Safety Officer trainings
  - Develop and implement Incident Safety Officer protocols
  - Investigate alternative deployment models to facilitate quicker turn out times
  - Develop and implement an on-scene accountability system
    - Accountability tracking hardware
    - SOGs
  - Develop and implement defined on-scene rehabilitation protocols
  - Purchase factory RIT bags from SCOTT
  - Develop RIT SOGs (Structure and Wildland)
  - Develop and implement RIT-specific training
  - Develop and implement a SOG regarding responding to violent or potentially violent incidents
  - Create accident (IWI) mitigation and investigation policies
    - District vehicle MVA
    - On duty injury
    - Accident near miss review
  - Late / Second Arrivals
    - Documentation: Decision tree posted in Radio Room
    - Training: Review decision tree as part of Rookie Academy
    - Create standardized response guidelines
- **3-Year**
  - Define, develop, and implement designated specialized teams
  - Offer ISO function to neighboring districts
  - Create downed firefighter rescue kits
- **5-Year**
  - Implement full staffing of crew of Station 1 to ensure rapid deployment of a minimum crew of four

# TRAINING

## Threats

- Unknown / inaccurate training schedules
  - Lack of optimized training for most frequent / highest risk (Risk / Frequency Matrix)
  - Lack of a method of prioritizing training, and communicating the method to all
- Lack of safe training props and equipment
- Lack of a central training platform with certification and training RMS
- Lack of NFPA 1403 certified instructors
- Lack of interoperability between districts

## Opportunities

- 1-Year
  - Ensure Google Calendar is up-to-date with training times and subject matter, at the beginning of each year, for the full year
  - Gather attendance information well in advance (one week) to optimize for number of people and highest priorities
  - Continually analyze training needs and if the training needs are being met through a monthly training report
  - Digital training platform with certification management
    - Possible platform: Vector solutions
- 3-Year
  - Establish a full complement of training props and training facilities
    - Burn building
    - Static hose beds
    - Forcible entry prop
    - Wildland props
    - Designated training hose, SCBAs, tools etc.
  - Establish a robust group of NFPA 1403 certified instructors
- 5-Year
  - Lead in the development of a mountain interagency training division in cooperation with neighboring districts

# CULTURE

## Threats

- Poor / non-existent risk analysis
- Undeveloped safety-first culture and messaging
- No defined performance improvement pathway
- Undeveloped culture of fitness
- Lack of fitness standards
- Personnel do not receive NFPA 1582 annual physical
- Mismatched approach to safety and risk with neighboring agencies
- Poor communications with town may lead to loss of support for activities

## Opportunities

- 1-Year
  - Develop a defined risk analysis policy and accompanying decision tree
  - Develop a performance improvement policy
  - Develop and implement steps to facilitate a safety first culture with consistent safety messaging
    - Bay door messaging
    - Safety report
  - Continue to encourage the development of a positive fitness culture
    - Peer fitness program
  - Implement NFPA 1582 physical examination for new hires and recruits
  - Implement community outreach program to demonstrate the value of the department
    - Run at least one volunteer academy a year for new recruits
    - Recruit at least 15 new volunteers a year
    - Attend at least 1 community event a month as NFPD representative (parades, farmers markets, school outings, birthdays, etc)
- 3-Year
  - Establish and implement annual fitness standards
  - Facilitate NFPA 1582 compliant physical exams
- 5-Year
  - Lead the development of an interagency safety culture and safety review committee

# VEHICLES

## Threats

- No defined Driver / Engineer training program or standards (NFPA 1002)
- No defined apparatus maintenance program (NFPA 1911 and NFPA 1915)
- Apparatus inventory and organization is inconsistent
- Inadequate apparatus hearing protection and hands-free communication
- Aging apparatus do not include standard safety features
  - Lap and shoulder restraints
  - Roll over protection
  - Adequate EV and driving lighting
  - Airbag configuration
  - Loose equipment mounting
  - ABS
- Many apparatus do not have appropriate tire style for NFPD mission profile, and some tires are beyond their lifespan
- Several apparatus do not safely meet the mission profile of NFPD (2-wheel drive vs. 4-wheel drive)

## Opportunities

- 1-Year
  - Develop Driver and Engineer program with training standards
  - Define and implement maintenance program with documentation
  - Develop standardized apparatus inventory
  - Evaluate NFPD fleet individually for:
    - Standard safety features and possible mitigation
    - NFPD mission profile applicability and safety
  - Develop a replacement plan for all apparatus that can not be retrofitted with safety equipment in a satisfactory manner, or do not safely meet NFPD mission profile
- 3-Year
  - Spec all new, and retrofit all remaining apparatus with functioning hearing protection and communication headsets
- 5-Year
  - Complete replacement of all apparatus that can not be retrofitted with safety equipment in a satisfactory manner, or do not safely meet NFPD mission profile

# FACILITIES

## Threats

- Bunker gear not separated from vehicle exhaust (cancer risk)
- Fitness room is not separated from vehicle exhaust (cancer risk)
- Limited capacity of gear extractor
- SCBA compressor is approaching the end of its useful life
- Fitness equipment is aged beyond useful life and may present excess risk
- Trip hazards at Station 2
- Limited opportunities for safe in-station training

## Opportunities

- 1-Year
  - Install doors between bunker room and vehicle bays
  - Cleanout / clean-up Station 2
  - Develop a 3-year fitness equipment replacement plan
- 3-Year
  - Enclose fitness loft from exposure to the apparatus bay
  - Complete a revamp of fitness equipment
  - Replace gear extractor with a higher capacity model
- 5-Year
  - Implement in-station training opportunities by utilization of “training by design” principles with remodels, etc.
  - Replace SCBA compressor with one that meets NFPA standards

## **References**

### 1) NFPA Standards:

- 1001- Standards for Firefighter Professional Qualifications
- 1002- Standards for Fire Apparatus Driver/Operator
- 1021- Standards for Fire Officer Professional Qualifications
- 1403- Standards for Live Fire Training
- 1521- Standard for Fire Department Safety Officer Professional Qualifications
- 1528- Standards on Comprehensive Occupational Medical Program for Fire Departments
- 1710/1720- Standards for the Organization and Deployment of Fire Suppression Operations, EMS, and Special Operations to the public by a Career/Volunteer Fire Department
- 1911- Standard for the Inspection, Maintenance, Testing, and Retirement of In-Service Emergency Vehicles
- 1915- Standard for Fire Apparatus Preventive Maintenance Program

### 2) NIOSH FFFIPP reporting

### 3) FEMA ISO Manual- 4th Edition, 3rd printing- February 2020