J. Health and Safety

General Background: Health and Safety

Firefighting is a dangerous occupation that requires firefighters to maintain high levels of physical fitness in order to perform their necessary duties safely.[58] This is particularly true for the more physically demanding tasks on the fireground—fire attack, search and rescue, exterior ventilation, and overhaul operations—which require firefighters to regularly exercise within a range of 60-95% of maximum capacity to maintain optimal readiness.[59] One of the best measures of determining fitness for fireground operations is aerobic capacity, with lower levels of aerobic capacity associated with increased risk of injury.[60] This is why standards of ideal aerobic capacity have been incorporated into the National Fire Protection Association (NFPA) fitness standards detailed in NFPA 1582 Standard on Comprehensive Occupational Medical Program for Fire Departments.[61] NFPA 1582 Annex C sets out the components of firefighter fitness evaluations, including ways to measure aerobic capacity.

To advance holistic wellness among firefighters, the International Association of Fire Fighters (IAFF) and International Association of Fire Chiefs (IAFC) created a joint Wellness-Fitness Initiative (WFI) to promote the health and safety of career and volunteer firefighters. Achieving holistic wellness under the IAFF and IAFC Wellness-Fitness Initiative includes five components:

1. Medical Evaluations;
2. Physical fitness;
3. Medical/fitness/injury rehabilitation;
4. Behavioral health; and
5. Data collection and reporting.

Aligned with NFPA 1582, which provides strict health and wellness standards for candidate fire fighters and guidelines that are more flexible for incumbent fire fighters, WFI also establishes guidelines for a progressive preventative and occupational health care services program for both new recruits and veteran fire fighters. Under this framework, WFI promotes an annual medical assessment of personnel to:

1. Identify their physical and mental ability to perform essential job duties without harming themselves or others;

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[58] INT'L ASSOC. OF FIREFIGHTERS & INT'L ASSOC. OF FIRE CHIEFS, THE FIRE SERVICE JOINT LABOR MANAGEMENT WELLNESS-FITNESS INITIATIVE (4th ed. 2018).

[59] Gerald S. Polin, Denise J. Roe, Jeffrey L. Burgess, Wayne F. Peate, & Robin B. Harris, Fire Fit: Assessing Comprehensive Fitness and Injury Risk in the Fire Service, 89 INT'L ARCHIVE OCCUPATIONAL ENVTL. HEALTH 251-259 (2016).

[60] Gerald S. Poplin, Denise J. Roe, Wayne Peate, Robin B. Harris, & Jeffrey L. Burgess, The Association of Aerobic Fitness with Injuries in the Fire Service, 179 AM. J. EPIDEMIOLOGY 149-155 (2014).

[61] NATIONAL FIRE PROTECTION ASSOCIATION, STANDARD ON COMPREHENSIVE OCCUPATIONAL MEDICAL PROGRAM FOR FIRE DEPARTMENTS 1582 (2018).

2. Monitor acute and long-term effects of working in the fire service;
3. Detect patterns of diseases that may indicate underlying work-related health concerns;
4. Collect and monitor quantifiable medical information of the fire department as a whole;
5. Inform uniformed personnel of their occupational health hazards and health status;
6. Provide cost-effective health promotion and disease prevention
7. Comply with federal, state, and local safety requirements.[62]

Additionally, WFI promotes the incorporation of exercise into firefighting duty shifts as well as a promotion of health and performance-based nutrition, potentially with the support of a nutritional counselor, dietitian, or sports nutritionist. For firefighters that experience an injury, WFI includes stages of rehabilitation to prevent aggravation of an existing injury or re-injury. Lastly, WFI also promotes behavioral wellness, which involves an individual's thoughts, feelings and behavior. Firefighting is a stressful job and departments that invest holistically in their members physical and behavioral health see a healthier fire fighting force.

Beyond the baseline fitness and wellness of fire fighters, NFPA 1500 Standard of Fire Department Occupational Safety, Health, and Wellness Program, advises departments to create written policies for occupational safety, health and wellness. This includes department goals for promoting wellness, limiting exposure to disease and hazardous materials like carcinogens, and the use of personal protective equipment.[63]

In addition to personal protective equipment standards from NFPA 1500, departments must also follow federal regulations for Personal Protective Equipment (PPE) in 29 CFR 1910.132 and Respiratory Protection in 29 CFR 1910.134. PPE regulations require employers to assess workplace hazards and identify the appropriate PPE to provide employees that will encounter those hazards. For PPE purchased for employees, the employer is also required to ensure that the PPE fits properly and train employees on the appropriate use of the PPE. In the fire service, PPE typically includes a protective coat and trousers, gloves, protective hood, helmet, boots, and a Self-Contained Breathing Apparatus (SCBA). SCBA provides respiratory protection governed by 29 CFR 1910.134, which requires an employer to conduct a medical evaluation to determine whether an employee is medically qualified to use a respirator and conduct a fit test.

On the fireground, NFPA 1584 establishes standards for rehabilitating personnel during emergency operations and training exercises. Under NFPA 1584 the Incident Commander or their designee should establish a rehabilitation group to make sure that responding personnel adequately rest and are physically and mentally prepared to resume operations. Generally, a rehabilitation site is established where personnel can remove their PPE, hydrate, eat, and be shielded from the elements. The rehabilitation site should include personnel able to provide

[62] INT'L ASSOC. OF FIREFIGHTERS & INT'L ASSOC. OF FIRE CHIEFS, THE FIRE SERVICE JOINT LABOR MANAGEMENT WELLNESS-FITNESS INITIATIVE (4th ed. 2018).
[63] NATIONAL FIRE PROTECTION ASSOCIATION, STANDARD ON FIRE DEPARTMENT OCCUPATIONAL SAFETY, HEALTH, AND WELLNESS PROGRAM 1500 (2018).

Basic Life Support (BLS) and monitor personnel for physical signs of abnormal heart rate, respiration, blood pressure, pulse oximetry, and temperature.

Policies and Standards Applicable to Howard County Department of Fire and Rescue Services: Health and Safety

Administrative Health and Safety

The Howard County Department of Fire and Rescue Services (HCDFRS) established the Bureau of Occupational Safety and Health (BOSH) in October 2013 through Information Bulletin 2013.001. With a mission to foster "a safe work environment, wellness and health lifestyle as an underlying value for all personnel to reduce risk and ensure safe, healthy and productive workforce," BOSH has five core functions: safety, health, wellness, risk management, and exposure support.[64] BOSH staff include six (6) administrative detail positions, including:

1. An Assistant Chief responsible for policy development, budget and overall bureau operations
2. A Battalion Chief responsible for safety operations and investigations
3. A Health and Safety Officer (Captain Rank), to oversee OSHA compliance and reporting as well as general occupational medical programming, injury care and exposure support, and infection control program support
4. A Health and Wellness Coordinator to manage the peer support team, peer fitness trainer program, health and wellness education program, fitness room inventory and maintenance
5. A Senior Analyst to collect and analyze data provided through health programs and provide support to all bureau members with various programs
6. An Administrative Assistant to support administrative duties to the Bureau

The BOSH wellness program overseen by the Health and Wellness Coordinator includes both the department fitness program and its peer support team. The Fitness Program includes fifteen (15) ACE certified Peer Fitness Trainers, who are available to help department members achieve positive fitness results. Additionally, all fourteen (14) HCDFRS facilities have current fitness centers equipped with a standard minimum inventory to support strength, aerobic conditioning, and flexibility. All equipment is commercial grade fitness equipment similar to that found in commercial gyms. Use of the facilities is encouraged both on duty and off duty. The Peer Support Team is a loosely administered group of individuals trained by the International Critical Incident Stress Foundation (ICISF). Although the Peer Support Team, unofficially renamed from the Critical Incident Stress Management (CISM) Team, is established through General Order 100.19 Critical Incident Stress Management (CISM), the team is still under development.[65] For example, although General Order 100.19 Critical Incident Stress Management refers to an on-

[64] HOWARD CO. DEP'T. OF FIRE AND RESCUE SERV., BUREAU OF OCCUPATIONAL SAFETY AND HEALTH, BOSH STRATEGIC UPDATE PLAN (2018).
[65] Howard County Dept. of Fire and Rescue Services, General Order 100.19 Critical Incident Stress Management (2013).

call Peer Support Team Coordinator and behavioral health specialists, no such dedicated personnel currently exist in HCDFRS.

BOSH also oversees the administration of annual physicals for both career and volunteer Howard County fire fighters, which is provided through the third party contractor CorpOHS, LLC/Carroll Occupational Health. The no cost pre-placement and annual physicals provided by the department comply with federal regulations and national standards, but do not include lung cancer screening or Pap smear tests. Under General Order 150.09 Respiratory Protection[66] and General Order 120.02 Volunteer Officer Requirements,[67] annual physicals are mandatory for all career firefighters and volunteer officers, with physicals of non-officer volunteers strongly encouraged but not required. In addition to providing physicals, the Fire Department Occupational Health Clinician provides minor injury care, infection control, fit for duty and return to work evaluations Monday through Friday between 07:00 and 15:30 hours, and on select evenings and weekends to accommodate volunteer members.

Fireground Health and Safety

Under General Order 310.01 Single Family and Townhouse Structure Fire Operational Guidelines, the first arriving EMS transport unit is to assume the function of the Initial Rapid Intervention Crew (IRIC) to ensure that at least one unit is prepared to provide assistance or rapid rescue if needed.[68] The IRIC is intended to be a temporary team until the Incident Commander establishes the Rapid Intervention Crew (RIC) for the incident.

During fireground operations, HCDFRS provides a Safety Officer that is responsible for on scene safety and oversight. As required by General Order 100.04, Position Requirements, Licenses, Certifications, Training, and Education Prerequisites, and General Order 120.02, Volunteer Officer Requirements, by January 2018 all newly promoted career officers and volunteer officers at the rank of Lieutenant and above are Pro Board certified as Safety Officers. In July 2008, Special Order 2008.52 Field Safety Officer established the Shift Safety Officer position. The Shift Safety Officer is responsible for responding to all box alarms, working rescue assignments, and any other incident for which the officer decides that scene safety oversight is necessary. Additionally, there is an on-call Safety Officer available for response although this position has recently been merged with the on-call battalion chief. In the current on call program, one Battalion Chief covers both responsibilities for the on-call Safety Officer and on call Battalion Chief

Along with an on-scene Safety Officer, General Order 300.02 Personnel Accountability requires the Howard County Communications Center to transmit alert tones every 15 minutes after the

[66] Howard County Dept. of Fire and Rescue Services, General Order 150.09 Respiratory Protection (2000).
[67] Howard County Dept. of Fire and Rescue Services, General Order 120.02 Volunteer Officer Requirements (2016).
[68] Howard County Dept. of Fire and Rescue Services, General Order 310.01 Single Family and Townhouse Structure Fire Operational Guidelines (2002).

first unit arrives on the scene of an incident through the time the Incident Commander transmits the "fire out" benchmark.

General Order 150.09 Respiratory Protection provides the department standards for respiratory protection, stating that the department is to comply with federal regulation 29 CFR 1910.134, which requires a medical certification of being able to use a breathing apparatus and fit testing to the apparatus. Under this federal requirement, all responding personnel working within IDLH atmosphere must use SCBA respiratory protective equipment. Under the Maryland Occupational Safety and Health (MOSH) standard adopted by HCDFRS, both career and volunteer firefighters working within an IDLH environment must use respiratory protective equipment.

Although there is no HCDFRS standard policy for rehabilitation, General Order 150.02 DFRS Extreme Weather Advisories explicitly requires a formal incident rehabilitation area established if personnel are engaged in outdoor activity for more than one (1) hour in extreme weather conditions.

Woodscape Drive Incident Health and Safety Overview: Health and Safety

Fireground Health and Safety

The first EMS crew on site, Paramedic 56, donned their PPE on arrival. The driver of Paramedic 56 began IRIC duties while the provider of Paramedic 56 reported to assist the driver from Engine 51 to secure a water supply from the pool at the back of the property. This fragmented IRIC was supported by other responding units, with the Incident Commander assigning RIC duties to Truck 7 and later augmented by Engine 71.

The on-duty shift Safety Officer during the incident was a twenty-nine (29) year veteran Captain who exceeded the minimum safety officer qualifications under NFPA 1521 Standard for Fire Department Safety Officer Professional Qualifications. Arriving at the incident scene at 02:14:04 the Incident Safety Officer donned his PPE and then began a 360-degree assessment of the fireground. Before the Incident Safety Officer completed their 360-degree assessment a MAYDAY was called on the scene, only six minutes after the Safety Officer arrived on scene.

Upon the receipt of the MAYDAY the RIC team comprised of Truck 7, Engine 71, and Paramedic 56 Driver deployed to assist. As additional units arrived on-scene, a second RIC team was formed with Engine 61 and Engine 91. There was a RIC established and maintained while units operated in the Immediately Dangerous to Life or Health (IDLH) environment.

On-scene rehabilitation for responding personnel was established late in the incident, even with the outdoor conditions of heat and humidity of late July. Although the Communications Center requested a canteen at 02:22 and then again at 04:10, the requests were unmet. The rehabilitation area was only supplied with drinking fluid from the suppression apparatus and ran out quickly. Personnel from Howard County Department of Police were able to purchase more supplies—water, sports drinks, and snacks—from a convenience store at approximately 05:00 and deliver them to the incident scene.

Upon the dispatch of the second alarm, The HCDFRS Chaplain was dispatched to the scene to provide psychological first aid. The HCDFRS Chaplain met with Bureau Chief 2 at the scene and was updated on FF Flynn's status. The Chaplain then went to the hospital to offer support to FF Flynn's family and the crews at the hospital. Seeking additional CISM support for the department, the Chaplain contacted the current Health and Wellness Coordinator to have him begin mobilizing CISM/PST efforts.

General Incident-Related Personnel Health and Safety

Throughout the course of the incident at 7005 Woodscape Drive, approximately fifty (50) fire fighters were on the fireground. While the majority of these firefighters were career HCDFRS personnel, there were also four (4) volunteer firefighters and two (2) volunteer chief officers on the fireground during the evaluated time period. Of those personnel, five (5) HCDFRS personnel did not have current fit testing of their SCBA, four (4) of whom operated their SCBA in an IDLH environment. Additionally, of the four individuals that operated SCBA in the IDLH environment without a current fit test, two (2) of them were not medically certified to wear a respirator.

Findings and Recommendations: Health and Safety

The Internal Safety Review Board (ISRB), after reviewing the available information regarding the 7005 Woodscape Drive Fire Incident, identified the following occupational health and safety issues during the incident. The ISRB reviewed fireground personnel work schedule and response volume prior to this incident and determined that responding personnel complied with HCDFRS work-rest cycle policy,[69] and so fatigue was likely not a factor. Additionally, the ISRB examined existing health and safety programs within Howard County Department of Fire and Rescue Services and identified areas for improving its existing efforts to promote the health and safety of Howard County fire fighters. These findings and associated recommendations are divided into two areas: Fireground Related and Department Related.

Fireground Related

Although not directly related to FF Flynn's MAYDAY or injuries, the ISRB noted several concerning safety issues on the fireground. First, at least five (5) members on scene did not meet minimum safety regulations for Respiratory Protective Equipment (RPE). Federal regulation 29 CFR 1910.134 requires RPE to be provided to any employee that is operating in an environment where they may be exposed to elements that are Immediately Dangerous to Life or Health (IDLH). By definition, this includes entry into a structure with a working fire, meaning that all personnel entering such a structure must be properly outfitted with RPE. Under General Order 150.09 Respiratory Protection, these requirements are established equally to both career and volunteer firefighters in Howard County, which include annual fit testing of a SCBA and medical certification that an individual is medically qualified to wear a SCBA. During this incident, five (5) individuals operated on scene without current fit testing, four (4) of whom were in an IDLH environment. Additionally, two (2) of those individuals were not medically certified to operate SCBA at the time of the incident.

Second, there was a Rapid Intervention Crew (RIC) established and maintained throughout the time-period evaluated by the ISRB. At the time of the MAYDAY the RIC comprised of Truck 7, Engine 71, and Paramedic 56 Driver responded commendably. Although there was a RIC throughout the incident, the establishment of the RIC did not conform to the existing General Orders. As required by General Order 310.01 Single Family and Townhouse Structure Fire Operational Guidelines, Paramedic 56 Driver assumed the duties of Initial Rapid Intervention Crew (IRIC); however, its response was fragmented when the Provider from Paramedic 56 assisted Engine 51 in non-IRIC duties after donning their PPE. Additionally, under General Order 310.01 Single Family and Townhouse Structure Fire Operational Guidelines Engine 111 should have assumed RIC responsibilities as the fourth due engine. Instead, the Incident Commander assigned Truck 7 to be the RIC with Engine 71 providing support. More detail on RIC operations are covered in Section III.C.

Third, the Incident Safety Officer (ISO) was established and maintained during the incident as required by Department Special Order 2008.52 Field Safety Officer. The ISO arrived on-scene

[69] Howard Co. Dep't of Fire and Rescue Serv., General Order 110.04: Overtime Assignment (2015).

only minutes before the MAYDAY call, not even having time to fully assess the fireground before the MAYDAY incident began. The ISO, recognizing the complexity, risk profile, and sheer size of the structure requested an assistant safety officer from the Incident Commander to assist in their duties. The Incident Commander, who stated that no other safety officers were available on scene to assign, denied these requests.

Fourth the Communications Center properly notified the Incident Commander of the first fifteen (15) minute interval at 02:19:10, as required by General Order 300.02 Personnel Accountability. However, the Communications Center ceased providing further fifteen (15) minute mark announcements after the MAYDAY, only activating a channel marker on Bravo 1 as required by General Order 300.04 MAYDAY Situations. This is a standard practice, with the markers activated at 02:21:13 and continued until 02:47:00 at which point FF Flynn had been removed from the dwelling. From that point on, neither a channel marker nor a transmission at the fifteen (15) minute intervals were completed. This was out of line with General Order 300.02 Personnel Accountability, which requires markers until "fire out." The Incident Commander declared "Fire Out" at 11:59 hours.

Fifth, related to the fifteen (15) minute interval communications, General Order 300.02 Personnel Accountability requires the Incident Commander (or designated Accountability Manager) shall direct division, group, and unit supervisors operating within the Hazard Zone to provide a PAR for personnel under their command. The Incident Commander acknowledged the fifteen (15) minute notification at 02:19:10 and received various other face-to-face communications in quick succession. The MAYDAY call occurred a minute after the Communication Center's fifteen (15) minute notification.

Sixth, the fireground never established a formal rehabilitation area. Although some rehabilitative efforts occurred late in the incident, there was no formal process to medically monitor personnel or ensure that they were properly hydrated, fed, and rested before returning to the structure. No documentation exists of crew rotation on the fireground. The Incident Commander did attempt to procure fluid and snacks for crewmembers early in the incident, however it took 2.5 hours before any additional fluid or snacks were brought to the scene. These items only appeared with the assistance of the Howard County Department of Police after two requests for canteen support were unanswered.

Department Related

In addition to safety concerns on the fireground, the ISRB noted several systemic issues in HCDFRS that could implicate the occupational health and safety of its members. First, volunteer personnel are not required to complete annual physicals even though it is recommended by both NFPA 1582 and the MOSH standard. HCDFRS strongly encourages volunteers to use their preplacement and annual physical program, however few have complied. Additionally, a 2014 NIOSH report[70] following the cardiac arrest of a HCDFRS fire fighter recommended required

[70] NIOSH HEALTH HAZARD EVALUATION REPORT HHE2015-0033 (2015) (available on file at HCDFRS).

annual medical evaluations for all fire fighters, including volunteers. During this incident at least four (4) members did not have a current—or in some cases any—physical completed. At this point in time, volunteers are not required to complete medical evaluations.

Relatedly, echoing NIOSH's 2014 recommendations, corporate volunteer fire fighters should be required to pass a Candidate Physical Ability Test in alignment with NFPA 1500. An annual physical ability test should be phased-in for all HCDFRS fire fighters.

Second, HCDFRS does not have a mandatory, non-punitive, confidential fitness assessment program as recommended by national consensus standards. Both national firefighting organizations and scientific research support the notion that maintaining a healthy and active lifestyle is linked to effective firefighting. From preventing disease and injury to improving performance on the fireground, it is important that members maintain proper nutrition and fitness. This recommendation was also included in the NIOSH Report.

Third, HCDFRS's current behavioral health program is underfunded, understaffed, and does not meet the needs of the department. Additionally, the Employee Assistance Program (EAP) is seldom used and is unavailable to volunteer firefighters. General Order 100.19 Critical Incident Stress Management (CISM) outlines the current behavioral health program, however many components of the program are non-existent or unfunded, including the behavioral health specialist and on-call peer support team coordinator. There is a volunteer chaplain, Chaplain Stone, that supports HCDFRS as he is able. However, there is not a formalized process to request his aid or dispatch a team to support the behavioral health on the scene.

Fourth, although it was not related directly to this incident, the ISRB noted that the HCDFRS program to inspect PPE is ineffective. The department requires annual inspection of PPE by a company officer, but there is no formal training program on how to conduct proper PPE inspection. There is no requirement to have the gear serviced and receive advanced cleaning by the quartermaster and contractor. General Order 150.18, Carcinogen Exposure Reduction Plan, does not clearly define when or how often the PPE should be sent out for cleaning. This allows the employee and company officer extreme amounts of latitude in carrying out the intent of the order. Further, PPE inspection reports retained by the department are inconsistent and difficult, at best, to locate and reproduce documenting the life and care of PPE.

Lastly, HCDFRS does not have an operating Occupational Safety and Health Committee as recommended by NFPA 1500 4.5.1 and General Order 150.05, Safety Committee. Although the committee has been established in the past, it is not currently operational due to budget constraints and individuals who have been involved in the committee feel like its work has been unsupported by the Office of the Fire Chief.

Findings	Recommendations
J.1 Not all personnel on the fireground had an up-to-date physical.	J.1.1 General Order 120.02 Volunteer Officer Requirements should be amended to require all volunteer fire fighters obtain a yearly NFPA 1582 physical, including certification of their ability to safely operate an SCBA. J.1.2 HCDFRS should fully enforce 29 CFR 1910.134, mandating that any and all members on the fireground must be properly fit tested and medically certified to use SCBA. J.1.3 HCDFRS should develop a records management system that accurately accounts for all operational department members and their medical certification status and annual fit testing.
J.2 Several members on scene operated within an IDLH environment with SCBA without the appropriate fit testing or medical certification, which is non-compliant to 29 CFR 1910.134. All four (4) of the individuals who operated in the IDLH environment without these certifications were volunteer firefighters.	See Recommendations [J.1.1 & 1.2]
J.3 There was no formal rehabilitation process or area established for members on the fireground to recharge and be evaluated for continued fitness of duty.	J.3.1 Develop a rehabilitation general order consistent with the intent of NFPA 1584. J.3.2 Develop a mechanism to ensure that one of the volunteer operated canteen units is available to respond to an incident request in a timely and consistent matter.
J.4 With the complexity of this incident and size of the structure, it was unreasonable to only have one safety officer on the fireground. Although there was not another safety officer on the fireground, a second safety	J.4.1. Expand the response plan for the Field Safety Officer to include responding on all local box alarms to provide on scene safety oversight. Having on scene safety oversight is critical on incidents where

Findings	Recommendations
officer could have been requested and filled by a Company Officer, Chief Officer, or mutual aid Officer.	an IDLH or active hot zone may be present. J.4.2. Deploy a second full time field Safety Officer. J.4.3. Establish a department order outlining procedures for preserving and documenting evidence at the scene of an employee injury, accident, or near miss.
J.5 The change to HCDFRS on-call matrix, which occurred sometime after 2013, merged the on-call Safety Officer and on-call Battalion Chief into a single position. During this incident, that individual became the Incident Commander (relieving the initial Incident Commander) making it impossible for him to fulfill the duties of Safety Officer.	J.5.1. Re-establish a dedicated, on-call Safety Officer. J.5.2. Deploy a second full time field Safety Officer.
J.6 The Communications Center did not transmit periodic single extended alert tones at fifteen (15) minute intervals, as required by General Order 300.02 Personnel Accountability.	J.6.1. Amend HCDFRS General Orders to be consistent with NFPA 1500 8.2.5.1 to provide for 10-minute status updates from the Communication Center to the Incident Commander and provide the Communications Center with the associated training to implement the changed order.
J.7 Although an IRIC and RIC were established, it did not comply with the General Orders governing those areas.	J.7.1. Amend HCDFRS orders (310.01 Single Family and Townhouse Structure Fire Operational Guidelines, 300.11 Rapid Intervention and IDLH Initial Entry Teams) to clearly define which response unit(s) shall be the IRIC and RIC units. J.7.2. Amend applicable orders and response pattern to provide for an additional dedicated RIC engine on all Local Box and greater assignments.

Findings	Recommendations
	i. Amend applicable General Orders to reflect that an IRIC and/or RIC shall be established at the point of entry into the IDLH environment prior to entry, unless a known life hazard exists. ii. Amend General Order 410.01 Communications to require that prior to entry into an IDLH environment, the crew leader shall verbally report their entry location, intended actions upon entry, and staffing level to the Incident Commander. The Incident Commander should confirm and approve the actions prior to entry.
J.8 HCDFRS does not fully fund or maintain a robust behavioral health program.	J.8.1. Develop and implement a structured behavioral health program.
J.9 HCDFRS provides minimal wellness or fitness support falling short of recommendations by national consensus standards.	J.9.1 Implement a mandatory, non-punitive, confidential fitness assessment program. This can be done independent of the annual physical, or incorporated into the annual physical, and done by the contracted Occupational Health provider. J.9.2 Develop a health education component to department training. J.9.3 Re-establish a functional Occupational Safety and Health Committee that is funded, respected, and utilized by senior administration. J.9.4 Develop, by training and administrative support, a culture of safety

Findings	Recommendations
	that transcends the organization. The culture must be supported by Administration and include continuous training for Safety Officers. Staffing in BOSH needs to be increased to meet the growing demands of the new culture and expanding workforce. J.9.5 Conduct annual fire station safety inspection program consistent with NFPA and MOSH standards.
J.10 HCDFRS current efforts to inspect and maintain PPE are inadequate to ensure that PPE is fully safe and functional for personnel.	J.10.1 Develop a PPE inspection, cleaning, and training program that effectively cleans PPE after exposure to contaminates and documents PPE maintenance across the garment lifespan.

Table 1 - Merged Fireground and Department Related Findings and Recommendations. NOTE: This table does not correspond with the paragraph order, this is intentional for this specific table.