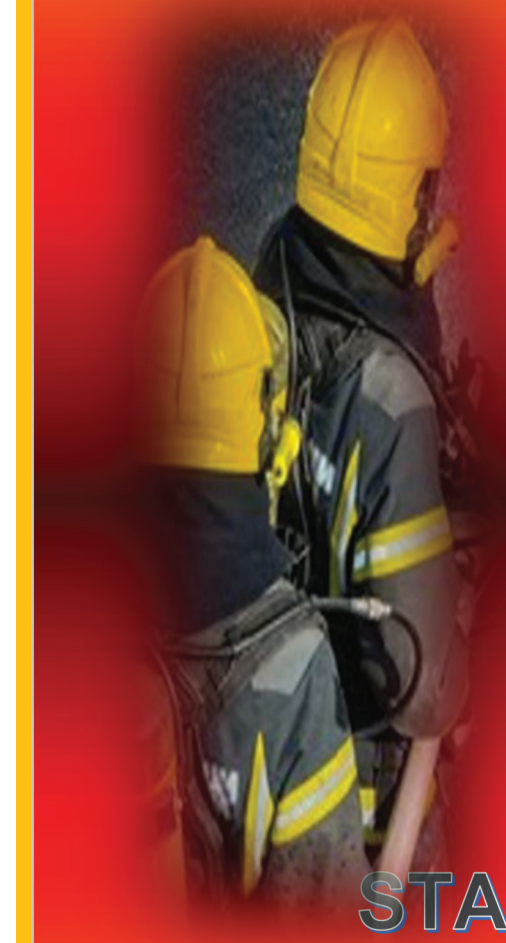
THE UNITED REPUBLIC OF TANZANIA

MINISTRY OF HOME AFFAIRS

FIRE AND RESCUE FORCE



STANDARD OPERATING PROCEDURE MANUAL

Second Edition

VOLUME I: STATION MANAGEMENT

2025

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FOREWORD

Fire and Rescue Force honored to present these Standard Operating Procedures (SOPs) which serve as a critical tool in enhancing the efficiency, safety and professionalism of our Force. The fire and rescue service are cornerstone of public safety responsible for safeguarding lives, property and environment from fire hazards and other emergencies.

These SOPs have been developed to provide clear consistent procedure and guidelines to all personnel within our Force. They reflect the highest standards of operational excellence and are designed to support our teams in responding swiftly and effectively to incidents of all scales. By adhering to these procedures, we ensure the uniformity, discipline and preparedness that are essential to fulfilling our duties with integrity and precision.

The challenges faced by fire and rescue services are ever evolving with new threats emerging as our society grows and urbanizes. It is imperative that we remain adaptable and continuously improve our capabilities. These SOPs represent a living document one that will be reviewed and updated as necessary to meet the changing demands of our work.

I am confident that the guidance provided herein will enhance the operational effectiveness of our Force and reinforce our commitment to protect the communities we serve. I urge every member of the Fire and Rescue Force to study and implement these procedures with the utmost dedication and professionalism. Our collective success in achieving our vision and mission depends on it.

Thank you for your continued service and dedication.

Signed by:

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John W. Masunga

Commissioner General of Fire and Rescue Force

LIST OF ACRONYMS

FRF - Fire and Rescue Force

CGF - Commissioner General of Fire

CF (OPS) - Commissioner of Fire Operations

RFO - Regional Fire Officer

DFO - District Fire Officer

GO - General Order

SOP - Standard Operating Procedure

SOG - Standard Operating Guideline

EMS - Emergence Medical Services

OIC - Operation Incident Commander

ICS - Incident Commanding System

SO - Special Order

SCBA - Self Contained Breathing Apparatus

SCUBA - Self Contained Underwater Breathing Apparatus

BAECO - Breathing Apparatus Entry Control Officer

PIO - Public Information Officer

AFFF - Aqueous Film Forming Foam

FFFP - Film Forming Fluor Protein

RIT - Rapid Intervention Team

SFO - Senior Fire Officer

PPE - Personal Protective Equipment

PAR - Personal Accountability Report

OPT - Operational Tactical Plan

DSU - Distress Signal Unit

FMB - Foam Making Branch

PREFACE

This SOG/SOP's were developed to provide guidance to management and personnel of the Fire and Rescue Force in the performance of their daily duties. This document is based on requirements for *Standard on Fire and Rescue Services* on professional publications, as well as appropriate Country laws and regulations.

This SOG and SOP document is the official Fire and Rescue Force Procedures manual.

a) SOG's remain guidelines which leave some room for modification. But the freedom to make a modification to SOG's, does not relieve responsibility if the modification works against the SOG's intent; by causing chaos; disruption in professional service; disregard for the SOG's intent; or intentional disobedience. Verbiage will consist of: can, could, may, etc.

b) SOP's are a rigid policy. They can only be broken with the Commissioner General approval, and then a report of the SOP failure or change shall be generated and given to the Commissioner General for his/her review. If the deviance in Policy was not in the best interest of the Force, a disciplinary action can occur. SOP's are general rules of conduct for all members. Verbiage will consist of Shall, must, always, etc.

These rules offer the Fire and Rescue Force policies, procedures, and guidelines that were designed for and adopted by the Commissioner General in an effort to safe-guard and protect all citizens of the Country. This document was developed with the intent to provide the highest possible level of safety for all fire personnel and citizens of the community. The prevention of accidents, injuries, exposures, and occupational illnesses are goals for the fire and Rescue Force and shall be the primary considerations at all times. This concern for safety and wellness shall apply to all members when contemplating any type of operation or action; whether emergency or non-emergency in nature.

These Standard Operating Guidelines/Procedures (SOG/SOP's) were developed and Reviewed for Fire and Rescue Force.

Fire and Rescue Force cannot guarantee that adherence to the SOG/SOP's alone will result in a reduction of occupational injuries, illnesses, or exposures. However, the SOG/SOP's can help provide part of the needed framework for a more organized response, improved firefighting results, a more cohesive response, a fire service occupational safety and health program, of which can be achieved by following these goals.

INTRODUCTION

The Fire and Rescue Force was established under *the Fire and Rescue Force Act, No. 14 of 2007* to provide for better organization, administration, discipline and operation of Fire and Rescue Force. The Force is charged with the responsibility of dealing with emergencies and disasters other than Crime.

Delivery of Fire and Rescue Services, as pointed out earlier before, had gone on uncoordinated, for years and without unified efforts to improve the quality and geographical scope. The enactment of the Fire and Rescue Act, Cap 427 was mainly in response to such weaknesses. It is intended to enhance quality and availability of fire and rescue services by reorganizing the administrative and operational systems. To start with, the existing fire brigades were put under one Central Command of the Commissioner-General.

Under the current set up the authority of the FRF extends from the national level down to the districts where the fire centres serve the grassroots population. It is on these legal grounds that the force should expand its geographical of service to reach out the grassroots demand, in line with the going Strategic Mission.

The primary objectives of the Fire and Rescue Force include the prevention and reduction of deaths, injuries and morbidities, and damage to property arising from fire, floods, earthquakes, and road traffic accidents. Respectively, it performs preventive measures through fire inspections and investigations with a view of obtaining information relating to causes of fire and losses inflicted by such outbreaks

In the way of facilitating its services delivery FRF establish Standard Operating Guidelines & Procedures to provide uniformity and cohesion in the operations and rank within Fire and Rescue Force.

The purpose of this SOP is to establish behavioural guidelines and rules for safe operations. This document has been designed to replace any and all existing written policy or procedure. It shall be a living document that should be updated regularly. Any changes must be approved formally by the Commissioner General. This document

should be used as the reference for questions concerning departmental procedures and expected behaviour by members of the fire and Rescue Force.

The following are the manual content and familiazation to Fire and Rescue Force personnel

a) All Fire and Rescue force personnel shall be familiar with the contents within a Volumes of the Standard Operating Procedures (SOP) manual and shall adhere to the guidelines contained in the manual. Failure to comply with an applicable SOP can result in disciplinary action.

b) All Volume of SOP manual will be maintained in the fire station and will be accessible to all personnel. Additionally, one SOP manual will be assigned to the Regional Fire Officer and Station Officer. Manuals assigned to Headquarters will be kept in an accessible location available to all employees.

c) Revisions, deletions or additions of SOP may be drafted periodically due to changes in operational procedure. The Officer in charge may designate someone with knowledge of the particular subject to consider these revisions, deletions, or additions and, if indicated, to draft the SOP.

d) Once the draft has been reviewed and revised, The Commissioner General will decide if the SOP is to be issued and if any further modifications are needed. No SOP will be issued without the Commissioner General approval.

e) When a new or updated SOP is developed and approved, a memorandum drawing attention to the new SOP, a copy of the SOP and an updated Table of Contents will be sent to each Regional including all Volume within a manual. The SOP and Table of Contents are to be produced new Volume of SOP Manual and the old SOPs Manual shall be preserved in forces Library

f) At a fire station, when the SOP is received the Senior Officer on duty will:
    i) Meet with all on-duty personnel to explain the guideline
    ii) Replace the old Table of Contents with new Table of Contents
    iii) Insert the new guidelines according to its number
    iv) Remove any old guidelines that are rescinded

g) All individuals who are issued manual shall:
    i) Read the new SOP
    ii) Replace the old Table of Contents with the new Table of Contents
    iii) Insert the new policy according to its number
    iv) Remove any old policies that are rescinded

The manual is divided into eleven Volumes. One is for administrative guidelines, the other for operational guidelines. To find an SOP, look in the appropriate Volume of the Table of Contents. In general, administrative guidelines transmit internal regulations and procedures that support administration of the Fire and Rescue force, while operational guidelines indicate how services are to be provided to the public.

a) The SOPs Manual is a dynamic document that provides guidelines and procedure for the operation of Fire and Rescue Force. It is being issued initially with a limited number of SOPs. Additional SOPs will be issued with a priority placed on developing SOPs that are central to the Force's administration and services. Existing SOPs will be reviewed after every three Years (3) and updated as necessary to meet changing administrative and service demands.

b) Because the Volume Manual will never be able to address every situation that may be encountered, personnel will need to use good judgment in applying the guidelines, coupled with training and experience. Just because a guideline does not exist for a particular situation, does not mean that actions should not be taken to address an administrative or operational problem.

c) The Manual is not intended to take the place of any laws, policies or training received. If there is a conflict between a SOP and any other law, the law will take precedent.

MISSION

We strive to preserve life and property, promote public safety and respond to all calls for emergence assistance within the community by operating efficiently and in accordance with national policy guidelines and international standards.

VISION

To become the Leading Fire and Rescue Force in terms of professionalism and quality service delivery in East Africa

VALUES

Fire and Rescue Force values reflect a culture developed in the workplace environment. They reveal a level of commitment and professionalism essential to do the job and meet the expectations of the communities that fire-fighters serve.

i. **Accountability**

We are accountable for our decisions and our performance.

ii. **Community Service**

Our people have a commitment to the communities we serve and community safety.

iii. **Diversity**

We recognize the value and the inclusion of people from a wide variety of backgrounds in everything we do and foster an environment where people feel safe from harassment and discrimination.

iv. **Integrity**

We support open and honest communication and act with integrity.

v. **Leadership**

We value and foster leadership based on our common vision, strategic direction and high standards of ethical behaviour.

vi. **Learning**

We value sharing of information and constructive feedback in order to continually improve our services.

vii. **Safety**

We are strongly committed to the provision of a workplace that is free from harm.

Viii. **Teamwork**

We encourage a work environment based on teamwork, mutual support, common purpose, trust and respect for the history and cultures of all the emergency services, volunteer services and others who contribute to our business achievements.

PURPOSE

The purpose of this SOP Manual is to ensure efficient, safe, and effective operations within a fire station. Also, it ensures consistency and quality in fire and rescue service delivery.

GLOSSARY

GENERAL DEFINITIONS

Artificial Respiration - Act of assisting or stimulating respiration

Upwind -Towards or on the side where the wind is blowing; windward.

Downwind - In the same direction towards which the wind is blowing; with the wind from behind.

Hot Zone - Within the Incident location, behind the inner cordon.

Cold Zone - At the Incident location, outside the inner cordon.

PPE - Personal Protective Equipment

Staging Area - Area away from the immediate scene of operations.

Confined Area - An area with enclosed conditions and limited access.

Paralysis - Paralysis is usually the first chemical reaction that occurs in the burning of many solid organic fuels**.**

Flashover - Is the near-simultaneous ignition of most of the directly exposed combustible material in an enclosed area**.**

Back draft - Is an explosive event at a fire resulting from rapid re-introduction of oxygen to combustion in an oxygen-starved environment**.**

DSU - Distress Signal Unit, is a piece of equipment used by firefighters while working in hazardous areas. Normally used in conjunction with breathing apparatus, it is a small, battery powered item attached to the breathing apparatus harness and enables the firefighter to summon help by means of activating a loud, piercing electronic bleeper**.**

Compartment Fires - Fires in enclosed spaces.

Buoyancy - Is a force exerted by a fluid that opposes an object's weight.

Ventilation - In firefighting, ventilation is an important part of structural firefighting tactics, and involves the expulsion of heat and smoke from fire building, permitting the firefighters more easily and safely find trapped individuals and attack the fire.

Salvage - To protect an object, property or parts thereof from any further damage from the effects of fire or water.

Salvage Sheet - A sheet of plastic or tarpaulin that can be used to cover contents or objects involved in the incident.

Flash Point - Is the lowest temperature of a material at which it can vaporize to form an ignitable mixture in air.

Spray - The process of forming a spray is known as atomization. A spray nozzle is the device used to generate a spray. The two main uses of sprays are to distribute material over a cross-section and to generate liquid surface area.

Jet - A jet is an efflux of fluid that is projected into a surrounding medium, usually from some kind of a nozzle, aperture or orifice. Jets can travel long distances without dissipating.

Fog - Where the main stream of water is broken up into tiny droplets. Its main uses are for rapid cooling or protection against radiant heat

Boil-over - A sudden and violent ejection of crude oil (or other liquids) from the tank resulting from a reaction of the hot layer and the accumulation of water at the bottom of the tank. When the two meet, the water is superheated and subsequently boils and expands explosively, causing violent ejection of the tank contents.

Slop-over - When a water stream is applied to the hot surface of burning oil, causing the burning oil to slop over the tank sides.

Heat Exhaustion - Normally, the body cools itself by sweating. But if you are exposed to high temperatures for a long time (working outdoors in the summer, for example) and don’t replace the fluids you lose, the body systems that regulate temperature become overwhelmed. As a result, your body produces more heat than it can release. Sweating, weakness, nausea, vomiting, headaches

Turning Over - The moving of debris following a fire in order to satisfy that the fire is completely out and there is no chance of re-ignition.

Arcing - The breakdown of an installation, electrical circuit or wiring which can create the right condition to the electricity to pass to the ground with the shortest available route causing damage or fire**.**

Wetting Test - An intermittent application of water spray (short burst) applied directly on to a cylinder body in order to observe if the steel body of the cylinder is hot and would give off steam.

Fend Off - A way of positioning the vehicle to act as protection or safety barrier, between the incident activity and roadway, whilst working in the path of moving vehicles.

Cordon - A line to isolate an area, event or person.

Spans of Control - Defined areas of management or responsibility.

Mushrooming - The effect of heated smoke rising and then hitting a ceiling, forcing the it downwards and outwards in the shape of a mushroom**.**

BLEVE - Boiling Liquid Expanding Vapour Explosion Heated liquid expands transforming rapidly into vapour which in turn causes a pressure build up inside a closed container. If the container is not designed to hold that pressure the pressure will cause the container to fail, releasing all of the vapour in the form of an explosion. If the vaporized liquid is flammable and mixes with air it can easily be ignited by an ignition source.

Flammability Range in Air - Give the proportion of combustible gases in a mixture, between which limits this mixture is flammable. Gas mixtures consisting of combustible, Oxidizing, and inert gases are only flammable under certain conditions.

Critical Temperature - The temperature above which a gas cannot be liquefied, regardless of the pressure applied.

Free Surface Liquid/Effect - Is one of several mechanisms which can cause a craft to become unstable and roll over (Capsize). (The liquid not contained).

Absent without leave (AWOL): Failure to report for duty without sufficient reason; and without securing proper approval; for unexpected leave or extended absence without advanced approval.

Acting: Serving temporarily in a position to which the member is not ordinarily assigned, usually in a position of higher rank.

Appeal: The right of a non-probationary member to apply for review from any order, dismissal, or suspension by the Commissioner General.

Chain of command: The line of authority from the Commissioner General through a single subordinate, at each level of command.

City or Regional: The physical area within the defined boundaries of the city Regional.

Days off: The time off granted to each member without loss of pay after the member completes his/her regular tour of duty.

Disciplinary Action: Action(s) to improve or correct performance, efficiency and morale of the member receiving discipline as well as the department.

Dismissal: The act of terminating the service of a member. This action does not eliminate a member's appeal process.

Emergency call back: Call back to duty when emergency conditions require additional shift personnel to mitigate the emergency. Members shall be compensated for call back duty according to the Act and regulations.

Fire Administration: The Commissioner General or his designee.
Commissioner General: The overall incharge of Fire and Rescue Force

Funeral leave: The period of time during which a member is excused from active duty by reason of the death of an immediate family member. This is set by Country policy.

Gender: Within this manual, the words "he" and "his" shall be construed to refer to both

genders.

Inspection: The periodic exam of personnel, stations, or apparatus for appearance, readiness, fitness for duty, and attention to duty according to standards set out in the standard operating guides, policies and procedures, general orders, and rules and regulations.

Insubordination: The wilful disobedience of any order or request, issued by a superior officer, and/or any disrespect, mutinous, insolent, or abusive language toward a superior officer.

Length of service: The period of time starting from the date a member's employment begins until the present or until the date the member's employment ends.

May: The word "may" is permissive and advisory. Where used, the word "may" implies that, while the procedure is not mandatory, it is in the best interest of everyone involved for the procedure to be followed.

Members: A collective term applied to all persons of the fire department.

Neglect of duty: Failure to give proper attention to the performance of one's duty.

Non-sworn employee: A civilian, non-uniformed employee, non-reservist.

On duty: A member is on duty during the period of time when he is actively responsible for; or engaged in the performance of his duties.

Off duty: A member is off duty on his planned days off, while at another vocation, when on authorized leave, and if sick. They shall be free of the responsibility of performing their usual routine duties.

Order: An instruction or directive, written or oral, issued by a superior officer to a subordinate or group of subordinates in the course of duty.

Paid Leave: The period of time during which a member is excused from active duty by reason of illness or injury that prevents the member from performing his duties or the vacation time granted to fulltime members of the department each year as

established by County policy.

Personnel: Fire and rescue force employees (full-time).

Personnel accountability report (PAR): A headcount of personnel on responding units on the emergency scene.

Plural words: Within this manual, singular words include the plural and plural words include the singular.

Probationary period: The initial six months (or other period of time) of new employee's service, beginning with the date of employment.

Promotion: A change in a member's employment status to a position of greater responsibility or higher classification.

Regular duty call-back: Call back to duty to fill a vacancy on a shift when another member's absence leaves that shift below the minimum staffing level.

Rank: A grade of official standing. Each class of members of the department constitutes a rank.

Ranking officer: The officer having the highest rank in grade for the longest period of time, unless otherwise designated by competent authority.

Recruit fire-fighter: Fire fighters who have not met minimum standards as per recruitment. These firefighters will be issued yellow helmets to allow the Incident Commander on scene to readily identify these personnel as being unable to make entry into a hazardous atmosphere.

Relieved of duty: An employment condition during which a member is not required or permitted to perform assigned duties but retains pay status. A member generally is relieved of duty when under investigation.

Resignation: The act of voluntary termination of a member's service.

Retirement: Termination of a member's active service by reason of attainment of the statutory length of service and age requirements or because of an incapacitating disability.

Shall and will: The words "shall" and "will" as used herein to indicate that the action is referred to as mandatory, or as a Standard Operational Procedure.

Special bulletin: A written, unnumbered procedure covering a specific situation or event.

Special order: A written, unnumbered directive covering a limited period of time during which the rules, regulations, or standard operating guides will be changed. Special orders shall be kept in a permanent file.

Standby call-back: A recall of members for standby duty in a station. Used during emergency conditions or during periods of peak activity.

Superior officer: Any member with supervisory responsibilities, either temporary or permanent, over members of a lower rank.

Suppression personnel: Members assigned to firefighting response duties.

Suspension: An action taken whereby a member is denied the privilege of performing his duties as a consequence of dereliction of duty, breach of discipline, misconduct, or violation of a regulation(s).

General orders- Written directives used to amend or clarify a policy or procedure and for information of a permanent nature. General orders shall be posted for review and kept in a permanent file. Members shall be required to initial new general orders to indicate that they have read the order.

Standard operating procedure. A written organizational directive that establishes a standard course of action to be followed

Standard operating guideline. A written organized directive that establishes a course of action that is recommended and to be followed.

Artificial Respiration. Act of assisting or stimulating respiration.

Special order: A written, unnumbered directive that addresses a specific instance where a policy or procedure will be changed, altered, or amended for a specific period. Special orders will be posted during the specified period.

Sworn employee: A uniformed full-time employee.
Tour of duty: The hours during which a member is on duty**.**
Workday: A tour of duty.
Volunteer: Hence forth to be referred as reserve firefighter.
Immediately: The term “immediately” shall be construed to mean “as soon as possible.”
Incompetence: The inability to satisfactorily perform one’s duties or responsibilities
Approved, Acceptable to the authority having jurisdiction.

Code, A standard that is an extensive compilation of provisions covering broad subject matter or that is suitable for adoption into law independently of other codes and standards.

Guide, A document that is advisory or informative in nature and that contains only no mandatory provisions. A guide may contain mandatory statements such as when a guide can be used, but the document as a whole is not suitable for adoption into law.

Recommended Practice, A document that is similar in content and structure to a code or standard but that contains only no mandatory provisions using the word “should” to indicate recommendations in the body of the text.

Standard, An NFPA Standard, the main text of which contains only mandatory provisions using the word “shall” to indicate requirements and that is in a form generally suitable for mandatory reference by another standard or code or for adoption into law. No mandatory provisions are not to be considered a part of the requirements of a standard and shall be located in an appendix, annex, footnote, informational note, or other means as permitted in the *NFPA Manual of Style*. When used in a generic sense, such as in the phrase “standards development process” or “standards development activities,” the term “standards” includes all NFPA Standards, including Codes, Standards, Recommended Practices, and Guides.

Absolute Temperature, A temperature measured in Kelvins (K) or Rankine’s (R).

Accelerant, A fuel or oxidizer, often an ignitable liquid, intentionally used to initiate a fire or increase the rate of growth or spread of fire.

Accident, An unplanned event that interrupts an activity and sometimes causes injury or damage or a chance occurrence arising from unknown causes; an unexpected happening due to carelessness, ignorance, and the like.

Active Fire Protection System, A system that uses moving mechanical or electrical parts to achieve a fire protection goal.

Ambient, Someone's or something's surroundings, especially as they pertain to the local environment; for example, ambient air and ambient temperature.

Ampacity, The maximum current, in amperes, that a conductor can carry continuously under the conditions of use without exceeding its temperature rating.

Ampere, The unit of electric current that is equivalent to a flow of one coulomb per second; one coulomb is defined as 6.24×10^{18} electrons.

Arc, A high-temperature luminous electric discharge across a gap or through a medium such as charred insulation.

Arc Mapping, Identifying and documenting a fire pattern derived from the identification of arc sites used to aid in determining the area of fire origin or spread.

Arc Melting, Melting of conductors and conducting surfaces as a result of electrical arcing.

Arc Site, The location on a conductor with localized damage that resulted from an electrical arc.

Arcing through Char, Arcing associated with a matrix of charred material (e.g., charred conductor insulation) that acts as a semi conductive medium.

Area of Origin, A structure, part of a structure, or general geographic location within a fire scene, in which the "*point of origin*" of a fire or explosion is reasonably believed to be located.

Arrow Pattern, A fire pattern displayed on the cross-section of a burned wooden structural member.

Arson, The crime of maliciously and intentionally, or recklessly, starting a fire or causing an explosion.

Auto ignition, Initiation of combustion by heat but without a spark or flame.

Auto ignition Temperature, The lowest temperature at which a combustible material ignites in air without a spark or flame.

Backdraft, A deflagration resulting from the sudden introduction of air into a confined space containing oxygen-deficient products of incomplete combustion.

Bead, A rounded mass of solidified metal on the end of the remains of an electrical conductor or conductors that was caused by arcing and is characterized by a sharp line of demarcation between the melted and unmelted conductor surfaces.

Blast Pressure Front, The expanding leading edge of an explosion reaction that separates a major difference in pressure between normal ambient pressure ahead of the front and potentially damaging high pressure at and behind the front.
Bleve, boiling liquid expanding vapor explosion.

Bonding, the permanent joining of metallic parts to form an electrically conductive path that ensures electrical continuity and the capacity to conduct safely any current likely to be imposed.
British thermal unit (Btu), the quantity of heat required to raise the temperature of one pound of water 1°F at the pressure of 1 atmosphere and temperature of 60°F; a British thermal unit is equal to 1055 joules, 1.055 kilojoules, and 252.15 calories.

Burning Rate, Heat Release Rate (HRR).

Calcination of Gypsum, A fire effect realized in gypsum products, including wallboard, as a result of exposure to heat that drives off free and chemically bound water.

Calorie, The amount of heat necessary to raise 1 gram of water 1°C at the pressure of 1 atmosphere and temperature of 15°C; a calorie is 4.184 joules, and there are 252.15 calories in a British thermal unit (Btu).

Cause, The circumstances, conditions, or agencies that brought about or resulted in the fire or explosion incident, damage to property, bodily injury, or loss of life.

Ceiling Jet, A relatively thin layer of flowing hot gases that develops under a horizontal surface (e.g., ceiling) as a result of plume impingement and the flowing gas being forced to move horizontally.

Char, Carbonaceous material that has been burned or pyrolyzed and has a blackened appearance.

Char Blisters, Convex segments of carbonized material separated by cracks or crevasses that form on the surface of char, forming on materials such as wood as the result of pyrolysis or burning.

Clean Burn, A distinct and visible fire effect generally apparent on noncombustible surfaces after combustible layer(s) (such as soot, paint, and paper) have been burned away.

Combustible, Capable of undergoing combustion.
Combustible Gas Indicator, An instrument that samples air and indicates whether there are ignitable vapors or gases present.

Combustible Liquid, Any liquid that has a closed-cup flash point at or above 37.8°C (100°F).

Combustion, A chemical process of oxidation that occurs at a rate fast enough to produce heat and usually light in the form of either a glow or flame.

Combustion Products, The heat, gases, volatilized liquids and solids, particulate matter, and ash generated by combustion.

Competent Ignition Source, An ignition source that has sufficient energy and is capable of transferring that energy to the fuel long enough to raise the fuel to its ignition temperature.

Conduction, Heat transfer to another body or within a body by direct contact.
Convection, Heat transfer by circulation within a medium such as a gas or a liquid.

Creep, The tendency of a material to move or deform permanently to relieve stresses.
Current, A flow of electric charge.

Data Analysis

The process of systematically utilizing logical techniques to dissect, reorder, evaluate, and interpret data.

Deductive Reasoning
The process by which conclusions are drawn by logical inference from given premises.

Deflagration
Propagation of a combustion zone at a velocity that is less than the speed of sound in the unreacted medium.

Density
The mass of a substance per unit volume, usually specified at standard temperature and pressure. The density of water is approximately one gram per cubic centimeter. The density of air is approximately 1.275 grams per cubic meter.

Detection
(1) Sensing the existence of a fire, especially by a detector from one or more products of the fire, such as smoke, heat, infrared radiation, and the like. (2) The act or process of discovering and locating a fire.

Detonation

Propagation of a combustion zone at a velocity greater than the speed of sound in the unreacted medium.

Diffuse Fuel
A gas, vapor, dust, particulate, aerosol, mist, fog, or hybrid mixture of these, suspended in the atmosphere, which is capable of being ignited and propagating a flame front.

Diffusion Flame
A flame in which fuel and air mix or diffuse together at the region of combustion.

Drop Down
The spread of fire by the dropping or falling of burning materials. Synonymous with “fall down.”

Effective Fire Temperatures
Temperatures reached in fires that produce physical effects that can be related to specific temperature ranges.

Electric Spark
A small, incandescent particle created by some arcs.

Electronically Stored Information (ESI)
A broad concept that includes public or private information stored in an electronic or digital medium, such as data available from computers (including email), CD-ROM discs, DVDs, Internet, cloud storage, personal digital assistants (PDAs), smart phones, tablets, GPS systems, satellites, and drones. ESI includes writings, drawings, graphs, charts,

photographs, sound recordings, images, video recordings, data compilations, computer-aided design files such as blueprints or maps, metadata, equipment/process control and data logging system files, and any other data that is stored electronically.

Empirical Data
Factual data that is based on actual measurement, observation or direct sensory experience rather than on theory.

Energy
A property of matter manifested as an ability to perform work, either by moving an object against a force or by transferring heat.

Entrainment
The process of air or gases being drawn into a fire, plume, or jet.

Explosive
A material with a pressure ratio (maximum pressure/pressure at ignition, in absolute units) equal to or greater than 2.0 in any test when tested using the explicability or Go/No-Go screening test described in Section 13 of ASTM E1226, *Standard Test Method for Explicability of Dust Clouds*.

Explosion
The sudden conversion of potential energy (chemical or mechanical) into kinetic energy with the production and release of gases under pressure, or the release of gas under pressure. These high-pressure gases then do mechanical work such as moving, changing, or shattering nearby materials.

Explosion Dynamics
Study of how chemistry, physics, fire science, engineering disciplines of fluid and solid mechanics, and heat transfer interact to influence explosion behavior.

Explosive
Any chemical compound, mixture, or device that functions by explosion.

Explosive Material
Any material that can act as fuel for an explosion.

Exposed Surface: The side of a structural assembly or object that is directly exposed to the fire.
Extinguish: To cause to cease burning.

Failure
Distortion, breakage, deterioration, or other fault in an item, component, system, assembly, or structure that results in unsatisfactory performance of the function for which it was designed.

Failure Analysis

A logical, systematic examination of an item, component, assembly, or structure and its place and function within a system, conducted in order to identify and analyze the probability, causes, and consequences of potential and real failures.

Fall Down
See Drop Down.

Finish Rating
The time in minutes, determined under specific laboratory conditions, at which the stud or joist in contact with the exposed protective membrane in a protected combustible assembly reaches an average temperature rise of 121°C (250°F) or an individual temperature rise of 163°C (325°F) as measured behind the protective membrane nearest the fire on the plane of the wood.

Fire
A rapid oxidation process, which is an exothermic chemical reaction, resulting in the evolution of light and heat in varying intensities.

Fire Analysis
The process of determining the origin, cause, development, responsibility, and, when required, a failure analysis of a fire or explosion.

Fire Area
The boundary of fire effects within a scene in which the area of origin will be located. The fire area is characterized by identifying the border between damaged and undamaged areas, which are distinguishable by fire effects and patterns created by flame, heat, and smoke.

Fire Cause: The circumstances, conditions, or agencies that bring together a fuel, ignition source, and oxidizer (such as air or oxygen) resulting in a fire or a combustion explosion.

Fire Chemistry
The study of chemical processes that occur in fires including changes of state, decomposition, and combustion.

Fire Dynamics
The detailed study of how chemistry, fire science, and the engineering disciplines of fluid mechanics and heat transfer interact to influence fire behavior.

Fire Effects
The observable or measurable changes in or on a material as a result of a fire.

Fire Hazard
Any situation, process, material, or condition that can cause a fire or explosion or that can provide a ready fuel supply to augment the spread or intensity of a fire or explosion, all of which pose a threat to life or property.

Fire Investigation
The process of determining the origin, cause, and development of a fire or explosion.

Fire Investigator
An individual who has demonstrated the skills and knowledge necessary to conduct, coordinate, and complete a fire investigation.

Fire Patterns
The physical changes, or identifiable shapes, formed by a fire effect or group of fire effects.

Fire Scene Reconstruction
The process of recreating the physical scene during fire scene analysis investigation or through the removal of debris and the placement of contents or structural elements in their pre-fire positions.

Fire Science
The body of knowledge concerning the study of fire and related subjects (such as combustion, flame, products of combustion, heat release, heat transfer, fire and explosion chemistry, fire and explosion dynamics, thermodynamics, kinetics, fluid mechanics, fire safety) and their interaction with people, structures, and the environment.

Fire Spread
The movement of fire from one place to another.

First Fuel Ignited
The first fuel ignited is that which first sustains combustion beyond the ignition source.

Flame
A body or stream of gaseous material involved in the combustion process and emitting radiant energy at specific wavelength bands determined by the combustion chemistry of the fuel. In most cases, some portion of the emitted radiant energy is visible to the human eye.

Flame Front
The flaming leading edge of a propagating combustion reaction zone.

Flame over
The condition where unburned fuel (pyro lysate) from the originating fire has accumulated in the upper layer to a sufficient concentration (i.e., at or above the lower flammable limit) that it ignites and burns. This can occur without ignition of, or prior to the ignition of, other fuels separate from the origin.

Flammable
Capable of burning with a flame.

Flammable Limit
The upper or lower concentration limit at a specified temperature and pressure of a flammable gas or a vapor of an ignitable liquid and air, expressed as a percentage of fuel by volume that can be ignited.

Flammable Liquid
A liquid that has a closed-cup flash point that is below 37.8°C (100°F) and a maximum vapor pressure of 2068 mm Hg (40 psia) at 37.8°C (100°F).

Flammable Range: The range of concentrations between the lower and upper flammable limits.

Flash Fire
A fire that spreads by means of a flame front rapidly through a diffuse fuel, such as dust, gas, or the vapors of an ignitable liquid, without the production of damaging pressure.

Flash Point of a Liquid
The lowest temperature of a liquid, as determined by specific laboratory tests, at which the liquid gives off vapors at a sufficient rate to support a momentary flame across its surface.

Flashover
A transition phase in the development of a compartment fire in which surfaces exposed to thermal radiation reach ignition temperature more or less simultaneously and, given sufficient availability of oxygen, fire spreads rapidly throughout the space, resulting in full room involvement or total involvement of the compartment or enclosed space.

Forensic (Forensic Science)
The application of science to answer questions of interest to the legal system.

Fuel
A material that will maintain combustion under specified environmental conditions.

Fuel Gas
Natural gas, manufactured gas, LP-Gas, and similar gases commonly used for commercial or residential purposes such as heating, cooling, or cooking.

Fuel Load
The total quantity of combustible contents of a building, space, or fire area, including interior finish and trim, expressed in heat units or the equivalent weight in wood

Fuel-Controlled Fire
A fire in which the heat release rate and growth rate are controlled by the characteristics of the fuel, such as quantity and geometry, and in which adequate air for combustion is available.

Full Room Involvement

Condition in a compartment fire in which the entire volume is involved in combustion of varying intensities.

Gas
The physical state of a substance that has no shape or volume of its own and will expand to take the shape and volume of the container or enclosure it occupies.

Glowing Combustion
Luminous burning of solid material without a visible flame.

Ground
A conducting connection, whether intentional or accidental, between an electrical circuit or equipment and earth or to some conducting body that serves in place of the earth.

Ground Fault
A current that flows outside the normal circuit path, such as (1) through the equipment grounding conductor; (2) through conductive material in contact with lower potential (such as earth), other than the electrical system ground (metal water or plumbing pipes, etc.); or (3) through a combination of these ground return paths.

Hazard
A condition that presents the potential for harm or damage to people, property, or the environment.

Hazardous Material
A substance (solid, liquid, or gas) that when released is capable of creating harm to people, the environment, and property.

Heat
A form of energy characterized by vibration of molecules and capable of initiating and supporting chemical changes and changes of state.

Heat and Flame Vector
An arrow used in a fire scene drawing to show the direction of heat, smoke, or flame flow.

Heat Flux
The measure of the rate of heat transfer to a surface or an area, typically expressed in kW/m^2, or W/cm^2.

Heat of Ignition: The heat energy that brings about ignition.
Heat Release Rate (HRR)
The rate at which heat energy is generated by burning.

Heat Transfer

The exchange of thermal energy between materials through conduction, convection, and/or radiation.

High Explosive
A material that is capable of sustaining a reaction front that moves through the unreacted material at a speed equal to or greater than that of sound in that medium [typically 1000 m/sec (3000 ft/sec)]; a material capable of sustaining a detonation.

High-Order Damage
A rapid pressure rise or high-force explosion characterized by a shattering effect on the confining structure or container and long missile distances.

Hybrid Mixture
An explosible heterogeneous mixture, comprising gas with suspended solid or liquid particulates, in which the total flammable gas concentration is ≥10 percent of the lower flammable limit (LFL) and the total suspended particulate concentration is ≥10 percent of the minimum explosive concentration (MEC).

Hypergolic Material
Any substance that will spontaneously ignite or explode upon exposure to an oxidizer.

Ignitable Liquid
Any combustible or flammable liquid.

Ignition
The process of initiating self-sustained combustion.

Ignition Energy
The quantity of heat energy that should be absorbed by a substance to ignite and burn.

Ignition Temperature
Minimum temperature a substance should attain in order to ignite under specific test conditions.

Ignition Time
The time between the application of an ignition source to a material and the onset of self-sustained combustion.

Incendiary Fire
A fire that is intentionally ignited in an area or under circumstances where and when there should not be a fire.

Inductive Reasoning
The process by which a person starts from particular experience and proceeds to generalizations. The process by which hypotheses are developed based upon

observable or known facts and the training, experience, knowledge, and expertise of the observer.

Interested Party
Any person, entity, or organization, including their representatives, with statutory obligations or whose legal rights or interests may be affected by the investigation of a specific incident.

Investigative Team
A group of individuals working on behalf of an interested party to conduct an investigation into the incident.

Isochoric
A line on a diagram connecting points of equal char depth.

Joule
The preferred SI unit of heat, energy, or work. A joule is the heat produced when one ampere is passed through a resistance of one ohm for one second, or it is the work required to move a distance of one meter against a force of one newton. There are 4.184 joules in a calorie, and 1055 joules in a British thermal unit (Btu). A watt is a joule/second. *[See also British thermal unit (Btu), and Calorie.]*

Kilowatt
A measurement of energy release rate.

Kindling Temperature
See, Ignition Temperature.

Layering: The systematic process of removing debris from the top down and observing the relative location of artifacts at the fire scene.

Lines of Demarcation
The borders defining the differences in fire effects on materials between the affected area and adjacent, less-affected areas.

Low Explosive
An explosive that has a reaction velocity of less than 1000 m/sec (3000 ft/sec).

Low-Order Damage
A slow rate of pressure rises or low-force explosion characterized by a pushing or dislodging effect on the confining structure or container and by short missile distances.

Material First Ignited

The fuel that is first set on fire by the heat of ignition; to be meaningful, both a type of material and a form of material should be identified.

Minimum Explosible Concentration (MEC)

The minimum concentration of a combustible dust cloud that is capable of propagating a deflagration through a uniform mixture of the dust and air under the specified conditions of test.

Minimum Ignition Energy (MIE): The lowest capacitive spark energy capable of igniting the most ignition-sensitive concentration of a flammable vapor-air mixture or a combustible dust-air mixture as determined by a standard test procedure.

Noncombustible Material

A material that, in the form in which it is used and under the condition anticipated, will not ignite, burn, support combustion, or release flammable vapors when subjected to fire or heat.

Nonflammable

(1) Not readily capable of burning with a flame. (2) Not liable to ignite and burn when exposed to flame. Its antonym is *flammable*.

Non-Scene Data

Data from sources other than those collected from the scene of a fire or explosion incident.

Origin: The general location where a fire or explosion began. *(See Point of Origin, or Area of Origin.)*

Overcurrent

Any current in excess of the rated current of equipment or the ampacity of a conductor; it may result from an overload *(see*, short circuit or ground fault

Overhaul

A firefighting term involving the process of final extinguishment after the main body of the fire has been knocked down. All traces of fire must be extinguished at this time.

Overload

Operation of equipment in excess of normal, full-load rating or of a conductor in excess of rated ampacity that, where it persists for a sufficient length of time, would cause

damage or dangerous overheating. A fault, such as a short circuit or ground fault, is not an overload.

Oxygen Deficiency

Insufficiency of oxygen to support combustion. *(See also Ventilation-Controlled Fire.)*

Passive Fire Protection System

Any component of a building or structure that provides protection from fire or smoke without any type of system activation or movement.

Piloted Ignition Temperature

See Ignition Temperature.

Plastic: Any of a wide range of natural or synthetic organic materials of high molecular weight that can be formed by pressure, heat, extrusion, and other methods into desired shapes.

Plume

The column of hot gases, flames, and smoke rising above a fire; also called *convection column*, *thermal updraft*, or *thermal column*.

Point of Origin

The physical location within the area of origin where a heat source, a fuel, and an oxidizing agent first interact, resulting in a fire or explosion.

Power: A property of a process, such as fire, which describes the amount of energy that is emitted, transferred, or received per unit time and is measured in joules per second (J/s) or watts (W).

Premixed Flame

A flame for which the fuel and oxidizer are mixed prior to combustion, as in a laboratory Bunsen burner or a gas cooking range; propagation of the flame is governed by the interaction between flow rate, transport processes, and chemical reaction.

Preservation

Application or use of measures to prevent damage, change or alteration, or deterioration.

Print Data

Print data includes writings, drawings, graphs, charts, photographs, images, and other material in paper or print form, including ESI that has been reproduced on paper or print media.

Protocol
A description of the specific procedures and methodologies by which a task or tasks are to be accomplished.

Proximate Cause
The cause that directly produces the effect without the intervention of any other cause.

Pyro lysate
Product of decomposition through heat; a product of a chemical change caused by heating.

Pyrolysis: A process in which material is decomposed, or broken down, into simpler molecular compounds by the effects of heat alone; pyrolysis often precedes combustion.

Pyrophoric Material
Any substance that spontaneously ignites upon exposure to atmospheric oxygen.

Radiant Heat
Electromagnetic transmission of heat energy; increases the sensible temperature of any substance capable of absorbing the radiation, especially solid and opaque objects.

Radiation
Heat transfer by way of electromagnetic waves that are longer than visible light waves and shorter than radio waves.

Rekindle: A return to flaming combustion after apparent but incomplete extinguishment.

Responsibility
The accountability of a person or other entity for the event or sequence of events that caused the fire or explosion, spread of the fire, bodily injuries, loss of life, or property damage.

Risk
The degree of peril; the possible harm that might occur that is represented by the statistical probability or quantitative estimate of the frequency or severity of injury or loss.

Rollover: See, Flame over.

Scene

The general physical location of a fire or explosion incident (geographic area, structure or portion of a structure, vehicle, boat, piece of equipment, etc.) designated as important to the investigation because it may contain physical damage or debris, evidence, victims, or incident-related hazards.

Scientific Method

The systematic pursuit of knowledge involving the recognition and definition of a problem; the collection of data through observation and experimentation; analysis of the data; the formulation, evaluation and testing of hypotheses; and, where possible, the selection of a final hypothesis.

Seat of Explosion

A craterlike indentation created at the point of origin of some explosions.

Seated Explosion

An explosion with a highly localized point of origin, such as a crater.

Secondary Explosion

Any subsequent explosion resulting from an initial explosion.

Self-Heating

The result of exothermic reactions, occurring spontaneously in some materials under certain conditions, whereby heat is generated at a rate sufficient to raise the temperature of the material.

Self-Ignition

Ignition resulting from self-heating, synonymous with *spontaneous ignition*.

Self-Ignition Temperature: The minimum temperature at which the self-heating properties of a material lead to ignition.

Sever Arc

An arc site where one or more of the circuit conductors were physically severed by the arcing event at that location.

Short Circuit

An abnormal connection of low resistance between normal circuit conductors where the resistance is normally much greater; this is an overcurrent situation but it is not an overload.

Site

The general physical location of the incident, including the scene and the surrounding area deemed significant to the process of the investigation and support areas.

Smoke

The airborne solid and liquid particulates and gases evolved when a material undergoes pyrolysis or combustion, together with the quantity of air that is entrained or otherwise mixed into the mass.

Smoke Condensate

The condensed residue of suspended vapors and liquid products of incomplete combustion.

Smoldering: Combustion without flame, usually with incandescence and smoke.
Soot: Black particles of carbon produced in a flame.

Spalling

Chipping or pitting of concrete or masonry surfaces.

Spark

A moving particle of solid material that emits radiant energy due either to its temperature or the process of combustion on its surface.

Specific Gravity (of a gas or vapor): The ratio of the average molecular weight of a gas or vapor to the average molecular weight of air, or the ratio of the density of a gas to the density of dry air at standard temperature and pressure.

Specific Gravity (of a liquid or solid)

The ratio of the mass of a given volume of a substance to the mass of an equal volume of water at a temperature of 4°C.

Spoliation

Loss, destruction, or material alteration of an object or document that is evidence or potential evidence in a legal proceeding by one who has the responsibility for its preservation.

Spontaneous Heating

Process whereby a material increases in temperature without drawing heat from its surroundings.

Spontaneous Ignition

Initiation of combustion of a material by an internal chemical or biological reaction that has produced sufficient heat to ignite the material.

Suppression

The sum of all the work done to extinguish a fire, beginning at the time of its discovery.

Target Fuel

A fuel that is subject to ignition by thermal radiation such as from a flame or a hot gas layer.

Temperature

The degree of sensible heat of a body as measured by a thermometer or similar instrument.

Thermal Expansion

The increase in length, volume, or surface area of a body with rise in temperature.

Thermal Inertia

The properties of a material that characterize its rate of surface temperature rise when exposed to heat; related to the product of the material's thermal conductivity *(k)*, its density (ρ), and its heat capacity *(c)*.

Thermodynamics

The branch of physics that deals with the relationship between heat and other forms of energy.

Thermometry

The study of the science, methodology, and practice of temperature measurement.

Thermoplastic

Plastic materials that soften and melt under exposure to heat and can reach a flow able state.

Thermoset Plastics

Plastic materials that are hardened into a permanent shape in the manufacturing process and are not commonly subject to softening when heated; typically form char in a fire.

Time Line

Graphic representation of the events in a fire incident displayed in chronological order.

Total Burn
A fire scene where a fire continued to burn until most combustibles were consumed and the fire self-extinguished due to a lack of fuel or was extinguished when the fuel load was reduced by burning and there was sufficient suppression agent application to extinguish the fire.

Trailer
Solid or liquid fuel used to intentionally spread or accelerate the spread of a fire from one area to another.

Understanding or Agreement
A written or oral consensus between the interested parties concerning the management of the investigations.

Upper Layer
A buoyant layer of hot gases and smoke produced by a fire in a compartment.

Vapor
The gas phase of a substance, particularly of those that are normally liquids or solids at ordinary temperatures. *(See, Gas.)*

Vent
An opening for the passage of, or dissipation of, fluids, such as gases, fumes, smoke, and the like.

Ventilation
The movement of gases within, into, or from any compartment or space or the firefighting operation of removing smoke and heat from the structure by opening windows and doors or making holes in the roof.

Ventilation-Controlled Fire
A fire in which the heat release rate or growth is controlled by the amount of air available to the fire.

Venting
The escape of smoke and heat through openings in a building.

Volt (V)

The unit of electrical pressure (electromotive force) represented by the symbol “E”; the difference in potential required to make a current of one ampere flow through a resistance of one ohm.

Watt (W)
Unit of power, or rate of work, equal to one joule per second, or the rate of work represented by a current of one ampere under the potential of one volt.

Work Plans
An outline of the tasks to be completed as part of the investigation including the order or timeline for completion, Planning the Investigation.

Canine Definitions: Deploying canine-handler teams in fire investigations requires the investigator to understand certain concepts that are described by specialized terminology. This section provides definitions of terms used in relation to the canine section.

Canine-Handler Team
A canine-handler team is a human and working dog who train and work together as an operational unit. [

Certification
Certification is the recognition that a canine-handler team has acquired and demonstrated specialized knowledge, skills, and abilities in the standard practices necessary to execute the duties of a canine team. Certification also provides the fire investigator a means of identifying those canine-handler teams that have successfully demonstrated compliance with established requirements. In addition, certification establishes that a canine-handler team achieves and maintains proficiency.

Handler
The handler is a person who has successfully completed a documented training and certification process in canine handling in the specific discipline of ignitable liquid canine detection and maintains those abilities through field application, maintenance training, scheduled recertification, and continuing education.

Ignitable Liquid Detection Canines (IGL Canines)
Ignitable liquid detection canines (IGL canines) are dogs specifically trained to locate and respond to the presence of certain classes of ignitable liquids by associated odor.

Scent Discrimination.
Operational usage: A dog's olfactory ability to distinguish between various odors.

Accouterment

Items such as medals, ribbons, insignia, badges, emblems, tabs, and tapes authorized for wear on uniforms.

Appurtenances
Devices such as stars, letters, numerals, or clasps worn on the suspension ribbon of the medal, or on the ribbon bar that indicate additional awards, participation in specific events, or other distinguishing characteristics of the award.

Awards
An all-inclusive term that consists of any decoration, medal, badge, ribbon, or appurtenance bestowed on an individual or unit.

Badge
An award given to an individual for identification purposes or that is awarded for attaining a special skill or proficiency. Certain badges are available in full, miniature, and dress miniature sizes.

Braids/plaits (hair)
Three or more portions/bunches of interwoven hair. Braids are worn free-hanging (loose) or against the scalp.

Clothing bag
Uniform items and personal clothing issued to initial entry Soldiers which all Soldiers are required to maintain throughout their military career.

Conservative
Conventional, traditional, and moderate in style and appearance; not extreme, excessive, faddish, or intense.

Cornrows (hair)

Cornrows are defined as hair temporarily rolled, twisted, or braided closely to the scalp producing a continuous, raised row of hair. Cornrows are worn against the scalp.

Decoration

An award given to an individual as a distinctively designed mark of honor denoting heroism, or meritorious or outstanding service or achievement.

Dress uniforms

Uniforms worn as formal duty attire, or that are worn at formal or informal social functions, before or after retreat. Theyinclude the Army blue and white uniforms.

Eccentric

Departing from the established or traditional norm.

Exaggerated

To make greater or more noticeable.

Extreme

Exceeding the ordinary, usual, or expected; not moderate.

Fad(dish)

A transitory fashion adopted with wide enthusiasm.

Field uniforms

Utility and organizational uniforms, excluding the garrison culinary uniform, that are worn in field, training, or combat environments.

Gold color/gold–colored

Includes gold plated, gold bullion, and synthetic metallic gold.

Lapel button

A miniature enameled replica of an award, which is worn only on civilian clothing

Locks (hair)

Locks are defined as sections of hair that twist from or near the root to the end of the hair, which create a uniform ringlet or cordlike appearance.

Medal

An award issued to an individual for the performance of certain duties, acts, or services, consisting of a suspension ribbon made in distinctive colors and from which hangs a medallion.

Mess uniforms

Uniforms worn for formal social occasions, when prescribed by the host. They include the blue and white mess and evening mess uniforms for males. For females, they include the blue and white mess and evening mess uniforms, the all-white evening mess, and the black mess and evening mess uniforms.

Miniature medal

A replica of a regular size medal, made to a scale half of the original. The Medal of Honor is not worn in miniature.

Neck

For clarity in regards to grandfathered tattoos, the neck is defined as anything above a crew T-shirt neckline (in a standard uniform T-shirt) and also below the jaw line (in the front of the head) and below a parallel line from the lowest point of where one ear connects to the head to the lowest point of where the other ear connects to the head (in the back of the head).

Optional clothing

A uniform or clothing item, with or without protective properties (for example, flame resistant clothing), prescribed by the Army Uniform Board and approved by the Chief of Staff, Army to be worn at the individual's option; optional clothing items do not include ballistic protective items, except for protective eyewear.

Personal clothing

Military-type clothing, clothing of a personal nature, and component items

Ribbon or ribbon bar

A portion of the suspension ribbon of a medal, worn in lieu of the medal and made in the form of a bar, ⅜ inches long by ⅜ inch wide.

Roll press

To remove substantial wrinkles from clothing without creating creases.

Rosette

A lapel device created from gathering the suspension ribbon of a medal into a circular shape. The device is worn on thelapel of civilian clothing.

Service medal

An award made to personnel who participated in designated wars, campaigns, or expeditions or who have fulfilled specified service requirements in a creditable manner

Service uniform

Worn in garrison environments when the wear of utility or dress uniforms is not required or appropriate. Service uniforms consist of the Army blue (Class A and Class B) uniforms.

Twists (hair)

Temporarily twisting two distinct strands of hair around one another to create a twisted ropelike appearance. Twists are worn free-hanging (loose) or against the scalp.

Unit award

An award made to an operating unit, which is worn by members of that unit who participated in the cited action (permanent unit award). Other personnel serving in the cited unit, but who were not assigned to the unit during the action, may be authorized temporary wear of the award (temporary unit award).

Unsightly

Unpleasant or offensive to look at.

Utility uniforms

Uniforms normally worn in the field, during training, or while performing duties where it is not practical or appropriate to wear a service unifor

Blast - Air being propelled away from the detonated device at high speed and with great force in all directions. CAUTION - Immediate and delayed onset of blast effect symptoms may occur in persons exposed to the blast wave

Cold Zone/Division - The outermost zone/division of an event. It is all the area outside the warm zone/division and within the secure perimeter. This should be where the holding area for walking wounded/witnesses is located for the duration of the event. Access into this zone from outside the secure perimeter (the outermost control line) is restricted.

Command Post - The fixed position where the Incident Commander and Staff should be located for the duration of the event. It should be located in the Cold Zone.

Division - A geographical area (A.K.A. Zone).

FRAG (Fragmentation) - Any particle/item which is part of the device, or near enough to the device to become a projectile. (A.K.A. Shrapnel)

Ground Shock - Emergency transmission through the soil causing damage to utilities (water/sewer, power/gas, communications) and structural foundations and infrastructure.

Group - A designated assembly of persons (teams) with an assigned mission.

Hot Zone/Division - The innermost perimeter of the event. It is all the area inside the warm zone/division representing the maximum risk area. This is the area where the offending element (person/group/hazard) would inflict reversible/irreversible harm/death to personnel. It begins at ground zero progressing outward through the blast, secondary and cautious areas abutting against the warm zone. Frequently it reaches approximately l000' from ground zero, and may be as much as 2000'.

Incident Commander - The individual who, by virtue of rank, training or circumstance, is accountable for coordinating resources at an event to ensure the safe, effective and efficient implementation of the incident action plan (IAP) for the event.

Sectors - Designated geographical areas of a structure, a subset of a division/zone. The principal entrance to a structure is designated as Side A, progressing clockwise through Sides B, C, and D. For non-structure events, cardinal compass points should be utilized.

Warm Zone/Division (A.K.A. Operations Area) - The area under uniform personnel control where support/decontamination activities are performed. Separates the Hot Zone from the Cold Zone.

Zones/Divisions - Geographical areas designated for command, control and communication purposes utilized for personnel accountability, health, safety and evidence collection.

SOP 1. ADMINISTRATIVE GUIDELINES

1.0 PURPOSE

The purpose of this SOP is to ensures that all personnel adhere to established procedures which helps maintain consistency, efficiency and safety within the fire station.

1.1 EMPLOYMENT/MEMBERSHIP

All applicants must be 18 years of age.

i) Have in good physical condition.
   a. Complete within one year an approved Fire Fighting I course
   b. Be a citizen of Tanzania.
   c. Have not been convicted of a felony or misdemeanour within the past 10 years.
   d. Have good moral character.
   e. If member is dismissed for due because he/she shall not be eligible for rehire except in the sole discretion of the Commissioner General.
   f. Successfully complete with Fire and Rescue Force physical ability test.

ii) During the probationary period the prospective fire-fighter will be issued a complete set of protective clothing with a yellow helmet and may respond to fire calls, but shall not take an active role in the suppression of fires until the successful completion of the Fire-fighter I course. Upon completion of Fire-fighter the fire-fighter will be issued a black helmet.

iii) Probationary fire-fighters will, in the event of a fire call, report to their station.

iv) The prospective fire-fighter shall use the probationary period to become familiar with all the equipment carried on the fire vehicles and learn the policies and procedures of Fire and Rescue Force.

1.2 RESIGNATIONS/TERMINATIONS

i) All members are requested to provide at least one-month notice of intent to resign from the Fire and Rescue Force. This will be done to allow ample time to process

the notice and find a replacement. The Commissioner General may waive this requirement and allow the resignation to become effective immediately on receipt of a member's intention to resign whether written or verbal.

ii) A formal notice of resignation shall be in writing and shall be delivered to the member's immediate supervisor. The supervisor shall forward the notice up through the chain of command for processing.

iii) Upon termination the member will be allowed to remove personal items from their locker under the authorization of the Officer in charge (or his designee).

iv) A terminated member shall turn in all uniforms including insignia, badges and identification card, radio, pager, keys (tools & supplies) and any other property issued by the fire department.

1.3 OBEDIENCE TO STANDARD OPERATION PROCEDURES

i) Personnel shall read and become familiar with the FRF Standard Operating Guidelines and Procedures. No plea of ignorance of SOG/SOP's will be accepted as an excuse for any violation.

ii) Personnel shall promptly and willingly respond to the lawful orders of superior officers or acting officers. Refusal to obey a lawful order shall constitute insubordination. Obvious disrespect for or disruption of a supervisor's order likewise shall be deemed as insubordination.

iii) Personnel shall abide by law, regulations and rules, the FRF SOG/SOP's, and Country policy. Members shall not be required to obey orders that are illegal or in conflict with the FRF SOG/SOP's.

iv) Personnel shall not publicly criticize or comment derogatorily to anyone about instructions or orders received from a superior officer.

v) Supervisors and acting supervisors shall refrain from exceeding their

authority in giving orders. The wrongful, or injurious, exercise of authority is prohibited and will not be tolerated.

vi) Should personnel receive an order that conflicts with a previous order, the member shall notify the officer who issued the conflicting order and shall be governed by the officer's subsequent instructions?

vii) Any personnel who is given an order and he/she believe to be unjust, improper, or contrary to a general order, SOG/SOP, laws and regulations should respectfully decline to obey the order and shall state the reason for doing so.

1.4 DISCIPLINARY ACTION

i) Purpose:

a) Fire and rescue personnel are required to conduct themselves in a highly self-disciplined manner, obeying the Fire and Rescue Force Rules and Policies, fire and rescue rules of conduct, and Force Standard Operating Procedures. In situations where members do not adhere to these expectations, Officer In charge will take the necessary action to correct the problem.

b) This procedure will guide Officer In charge in dealing with disciplinary problems, which they encounter. If Officer In charge have any questions concerning employee discipline, they should be directed to the Legal Officer to be addressed in accordance with the Law and Regulations.

2) General Information:

a) It is the policy of the Force that Officer In charge administers discipline in a corrective, progressive, and lawful manner.

a. Corrective in the sense that the Officer In charge and member

come to an understanding about the causes and/or reasons for a member's deficiencies, correct those deficiencies, and restore the member to a productive and positive employment status.

b. Progressive in that discipline will normally begin with a verbal reprimand or warning and, when circumstances of separate or related incidents warrant, proceed to written reprimand(s), suspension without pay, demotion, and finally to dismissal. An incident of misconduct may require any of these forms of disciplinary action whether or not a lesser form has preceded the action. This would depend upon the severity of the offense.

c. Lawful in that discipline and the procedure by which it is administered does not violate Constitutional rights or Force Laws, Regulations and Standard Operating Procedures.

d. The principal objective of disciplinary action is to improve (or correct) performance, efficiency and morale of the personnel receiving discipline. Disciplinary proceedings and the results thereof are confidential. The supervisor is responsible for maintaining this confidentiality.

e. All media inquiries pertaining to disciplinary actions shall be directed to the Public Information Officer. Contents of a reprimand or separation notice are public record and subject to disclosure.

f. Officer In charge should keep in mind that all disciplinary actions imposed are reviewed by their superiors, as well as being subject to a grievance process. It is mandatory that supervisors seek support from their superiors prior to taking disciplinary action, and feel comfortable that they can support their actions in a formal review or appeal process. Support from supervisors is extremely important when disciplinary action beyond a verbal reprimand is being considered. The Training Officer shall be notified of all

disciplinary action involving a probationary Fire-fighter or Fire-fighter Trainee.

ii) **Programs for improving job performance**:

a) In most cases minor job performance problems can be resolved by the Officer In charge bringing the problem to the attention of the employee, and the employee making the proper modification in his/her performance. When a serious job performance problem is identified, the Officer In charge must decide whether to solve it through:

i) Training
ii) Employee Assistance Program
iii) Non-Disciplinary Counselling or
iv) Disciplinary Action

b) Each situation will be considered separately, and it will be the Officer In charge responsibility to make a determination as to the best course of action to take to resolve the situation.

iii) Employee investigations will be addressed in accordance with the laws and Regulations.

iv) Suspected on-duty substance abuse will be addressed in accordance with the laws and Regulations.

v) Disciplinary action will be addressed in accordance with the laws and regulations

1.5 PROFESSIONAL RELATIONS

i) FRF personnel shall exhibit courtesy and respect to all officers and acting officers. While on duty, all officers shall be referred to by their appropriate rank.

ii) In charges shall exhibit courtesy and respect to their subordinates and shall treat all members in a fair and impartial manner.

iii) Personnel shall treat one another with due courtesy and shall not engage in horseplay or disrespectful conduct while on duty.

iv) Members are required to speak the truth at all times, whether or not under oath, in giving testimony, in connection with any official duty.

v) Members shall not make false reports concerning any department business, personal character, or conduct, of any member.

vi) Members shall exhibit courtesy and respect to other members, the public, and other employees.

vii) Members are required to give their name and rank whenever requested by the public.

viii) Should a member have a complaint against a member of the public, he shall forward the complaint in writing to the Fire Officer In charge.

ix) Should a member be assaulted by a member of the public, he or she shall notify the officer in charge to consider legal remedies.

1.6 PERSONAL APPEARANCE

i) This rule applies to all members while on duty or officially representing the department at any public meeting, training session, seminar, conference, or other similar event.

ii) Members shall maintain proper personal hygiene while on duty.

iii) Uniforms and shoes (boots) shall be neat and shall conform to the requirements set forth in the Uniforms section of this manual.

iv) When not in uniform, members who are on duty or who are representing the department shall dress in a professional manner that is appropriate for the occasion. At no time while in uniform shall a member wear jewellery, pins, ribbons, buttons, or an article of clothing that constitutes an advertisement;

political view; social viewpoint; or a message that is offensive to anyone on the basis of age, colour, disability, ethnicity, national origin, race, religion, political affiliation, gender, or sexual orientation; this includes any vulgarity or nudity.

v) Hair shall be kept clean and well groomed; shall not constitute a safety hazard; and at no time shall interfere with the use of protective clothing or equipment. Hair will be clean, well-groomed and safe. Any hairstyle considered unsafe shall be trimmed accordingly or bound to eliminate the hazard. Sideburns can extend to the bottom of the ear lobe. Sideburns and moustaches will be trimmed and well-groomed. Other facial hair, such as a beard, is not acceptable.

   Any hairstyle that significantly distracts from the uniform appearance of the members will not be allowed. Facial hair shall not be allowed at points where the SCBA face piece is designed to seal with the face. Any facial hair considered to be unsafe shall be trimmed/shaved to eliminate the hazard. Fire personnel who because of illness are unable to shave facial hair, may not be assigned to a line position in Operations and cannot wear a Fire Department uniform.

vi) Members shall limit the use of jewellery to a wrist or pocket watch and a wedding ring. These items shall not interfere with the proper use of protective clothing or equipment. Earrings, ear studs, bracelets, neck chains, and so forth are prohibited during emergency operations and training operations.

vii) Members who are not involved in emergency response operations shall limit their use of jewellery. Items that create excessive noise, interfere with job performance, or constitute a safety hazard shall not be worn.

viii) While on duty and subject to involvement in emergency operations; male and female department members are prohibited from wearing earrings and or ear studs. Members on duty shall not wear any nose, lip, or eye brow jewellery or other items that draw unnecessary attention to the wearer.

ix) Members on duty shall limit the use of nail polish to a clear colour and makeup to conservative and non-distracting.

SOP 2. MEDIA RELATIONS

i) All media contact must be handled through the Public Information Officer. If a fire-fighter is approached by a member of the media, he should direct the inquiry to the first available Public Information Officer and notify incident command that media is on scene.

ii) Statements to the media, news releases, and media campaigns must be approved by the authorized person prior to their release, except as provided below.

iii) The Commissioner General / Regional Fire Officer Representative are authorized to provide the media with general details concerning Fire and Rescue's role in an incident, in the absence of the Public Information Officer. Upon releasing information to the media, the Public Information Officer should be notified immediately.

iv) Information pertaining to the cause and origin of an incident shall be released only by the Public Information Officer, Regional Fire Officer, Commissioner General, or his designated representative.

v) All interviews shall only be done with prior approval by the CGF or RFO.

vi) Representatives of Fire and Rescue are not authorized to release information related to patient care, patient condition, fatalities or law enforcement responsibilities.

SOP 3: RECALL TO DUTY

i) All members shall remain at work until properly relieved of duty.

ii) To maintain essential services, the Fire Officer in charge or his designee shall have the authority to order members of the department to return to duty at times other than their normal work period.

iii) Members recalled to duty shall report within a reasonable period of time after being notified to report to their designated duty site.

iv) Members shall respond to an emergency recall unless incapacitated. Any member who refuses to respond shall be subject to disciplinary action for insubordination.

SOP 4. STATION DUTY

i) Officer In charge are responsible for ensuring that the tasks assigned according to the daily work schedule are completed in a timely manner and that their apparatus and station are clean and the company(s) is capable of responding to emergencies.

ii) On-duty crews are expected to turn out (respond) within two (2) minutes of receipt of an alarm.

iii) Shift In charge may waive the tasks assigned according to the daily work schedule when special circumstances warrant. Any activity not completed in such a situation shall be rescheduled for the next tour of duty and shall be completed as soon as practical. Special circumstances may require that a crew continue to work after their normal relief time to complete an assignment.

iv) Drivers shall complete a driver's daily apparatus checklist for their assigned vehicles for each tour of duty.

v) Prior to being relieved of duty, members shall report all pertinent information to the crew relieving them.

vi) Protective clothing shall be stored properly at the end of each tour of duty and shall not be left on the apparatus.

vii) Officer In charge are responsible for station operations and shall take appropriate actions to ensure that fuel, utilities, and station supplies are used conservatively.

Whenever the daily schedule permits, members are encouraged to devote their free time to physical fitness activities and personal study. However, members may not engage in any activity that interferes with their ability to respond promptly to an inside

SOP 5: OCCURRENCE BOOKS (OB)

Introduction

This Occurrence Book allows for the recording of all suspicious events. Monitor radio traffic, access and event control. This book assists in recording times and details of events-occurrences at a particular location. If used properly it can be used for corrective action, or as a record of events that may prove useful for establishing criminal activity patterns.

Headings in the daily occurrence book

General headings

- Site no: A unique number that does not change. This is provided by the employer.
- Date: Today's date
- Day: The name of the day of the week
- Site name: The name given to site
- Time on: Time the book is opened
- Time off: Time the book is closed
- S/O name and no: Officer's name and identity number

- Site equipment check: Tick relevant boxes to show checks have been made

Entry headings

- Time: This is the time you make the entry. It is not the time of the event.
- Log no: A sequential number, starting at the top of the page number 1, then 2 etc. Often the book come with printed numbers.
- Report and action taken: Enter relevant information, such as time of event and more, see below.
- Signature: Add your signature. Often officers add their initials or full name alongside their signature.

Officer's check

If relevant at the end of a shift a supervisor will add:

- Name: Officer/incharge name
- Signature: Officer/incharge signature
- Date: Today's date
- Time: Time the book is closed

Who should access the daily occurrence book?

It's usual to open and close an occurrence book with the start and end of a shift.

Who should open and close the occurrence book

Control room will open and close the book for shift. However, Incharge may open and close the book. In this case, the Incharge will make the opening and closing entries.

Open at start of shift: Add an entry when you open the book. Add any comments brought forward from the last shift or time before.

Close at end of shift: Add an entry at the end of the shift, add any remarks for the next shift.

Who should make entries?

Entries should be made by authorized personnel only. This could be an officer or Incharge.

Who should view the book?

The daily occurrence book may include sensitive information. Therefore, its important access is restricted.

The daily occurrence book is often only viewed by FRF personnel. However, viewing rights may NOT be extended to non-FRF personnel.

In addition, being a security officer does not grant access to all occurrence books on site. For example, if you operate on a site that uses more than one book at different locations, access may be restricted to officers at those locations.

Where to keep the occurrence book

To control access and avoid damage the daily occurrence should be kept in a secure, dry location.

Where to keep the occurrence book

To control access and avoid damage the daily occurrence should be kept in a secure, dry location.

Write in the daily occurrence book

Occurrence books are a permanent record of events. Therefore, use a pen with permanent ink to make entries. Do not use a pencil because pencil is easily erased and fades over time.

Handwriting and legibility

Many people have handwriting that is difficult to read. However, if you have a paper book it is important your handwriting is readable. Consider using CAPITAL LETTERS. Because writing in capital letters slows down writing and makes each letter easier to read.

Spelling

Remember a daily occurrence book is not a writing test, do not get anxious; use a dictionary if uncertain about how to spell a word.

What to do when someone records wrongly in an occurrence book

If you or someone else makes a mistake do not score through or mark out the error. Make a reference to the error and then add the correction elsewhere.

ELBOW

ELBOW is a useful acronym to help you remember some basic rules. Do not:

- **E**rase: Do not rub out or score through mistakes. Initial the error and make another entry.
- **L**eaves: should not be torn out of a book. Even if the page has only one entry. Any errors should be initialed and explained.
- **B**lank: spaces are not helpful. Because if your book has a reference coding system, any spaces will make the system hard to follow. Avoid blank spaces and use all the lines in the book.
- **O**verwriting: is difficult to read and destroys previous entries. Do not overwrite.
- **W**riting: between lines makes reading difficult. Do not write between lines.

When to make entries in the occurrence book

Make an entry only if it is not a distraction from an ongoing incident. Priorities the incident on site, then make an entry. If, for whatever reason, you do not have time to complete a full entry, make an abbreviated entry and complete as soon as possible. For example, if it is the end of shift and an incident occurs, you may not have time to complete a full entry. In this instance, make an abbreviated entry and complete when next on shift.

How to remember what to write in an occurrence book

It is hard to know what to write in a daily occurrence book. Try to answer the below questions to capture important information:

- What happened?
- Where did it happen?
- Why did it happen?
- Who was involved or witnessed the incident?
- When did it happen?
- How did it happen?

How to write an entry in the daily occurrence book

An occurrence book is not a substitute for writing a full report. However, the same principles used for report writing are applicable for writing in an occurrence book.

Report writing is a skill developed over time. A well written report is easy to follow, objective and truthful. These tips will help you become a better report writer.

Order

Write the report in a chronological order. Detail events in a time sequence from the past to present.

Facts not Fiction

Record the facts rather than a story or narrative. For example, imagine one night you're walking and you discover an injured person lying in the street. You spot someone running away from the scene. Many people would assume the person running away is the assailant (this is what we see in movies all the time). However, the person running away could be someone running for help.

Because this is a familiar story, it is tempting to assume the person running from the scene is responsible for the person's injuries. However, report writing is not story telling. Record the incident as you find it, don't apply judgments. Use the same rule when you take witness statements.

No Lies

Be honest, even if you're not proud of your actions.

What to put in and leave out of the occurrence book

What should and should not be put in the book? Check back at previous entries to see what others have entered. Alternatively, seek guidance from site manager.

The Expected

- Repeating duties: Security patrols, lock-up and unlock, fire drills etc.
- Visitors and deliveries made to site
- Assignment Instructions: Review and testing of assignment instructions
- Shift change over remarks: For instance, equipment checks and ongoing issues to be resolved in the next shift

- Shift time: Start and end time of shifts

These events may appear mundane. However, if they are not put in the book a reader will assume they have not occurred.

How much to write in an occurrence book

Often a daily occurrence book does not give a lot of space to write everything that happens. Therefore, use separate paper or report document and reference that in the occurrence book.

Try to avoid writing over multiple lines or in the margin of the book. This can be difficult to read.

How to present a daily occurrence book

What happens to all the completed occurrence books? Usually, nothing. Because they're put away and forgotten. As a result, the security guard's day-to-day activity goes undervalued and threats undetected.

SOP 6. DAILY WORK SCHEDULE

1) Scope:

This standard regulates the daily activities of personnel assigned to fire station duty.

Daily Schedule

The following tasks shall be performed every shift, as incident volume and weather permit:

Time	Daily Activity
06:00	Raise flags
07:00	Report for duty and Shift change Shift In charge (oncoming & off going) meet to pass down any pertinent information
07:15 – 07:30	Shift briefing – conducted by Shift Incharge
07:30 – 08:00	Complete Fire and rescue engine & equipment checklist Any malfunctions and/or discrepancies shall be reported to the shift supervisor, in writing, 0900 hours Complete all housekeeping duties. 1) sweep out Fire and Rescue engine bays 2) clean station (sweep, mop, dust) 3) wash off concrete pad areas 4) Polish outside areas 5) empty trash containers (inside & outside)
09:00 – 10:00	Breakfast
10:00 – 11:00	Training
11:30 – 13:00	Lunch Preparations.
13:00 – 16:00	Pre-fire plans, smoke detector program, hydrant testing, hose testing, other scheduled activities.
16:00 – 17:00	Physical Training

17:00 _ 18:00	Wash Fire and Rescue engine and equipment
18:00 – 05:30	Standby/Free Time (supper, shower, phone usage, etc.)
05:30 – 06:00	Wake up – all personnel will be out of bed Ensure kitchen is clean – dishes put away etc. a) Breaks may be taken as time and activities permit b) Watching television is permitted during the meal times and after 17:00 hours. Monitoring the Weather Channel during times of possible severe weather is permitted and encouraged. Televised training and relevant videos are permissible at the shift supervisor's discretion. c) Abnormally high incident call volumes may necessitate additional rest periods, as determined by the shift supervisor

SOP 7. MINIMUM STAFFING

1) Scope:

This standard regulates the daily, routine staffing of fire stations and fire and rescue tenders by sworn personnel. The provisions of this procedure may be suspended by the Commissioner General or his designee whenever special circumstances warrant. This standard was promulgated to:

i. Establish guidelines that are intended to provide the community with the highest quality fire services possible within the parameters of the force budget.

ii. Minimize the health and safety risks of personnel by assembling a sufficient number of personnel at every incident to bring the incident to a safe and satisfactory conclusion.

2) Staffing Guidelines:

i. All staff fire-fighters shall be ready for duty at all times while on shift. All off duty personnel can be called to duty at any time. Any deviation from this standard must be approved by the Commissioner General, or in the absence, his designee. Minimum staffing for fire tender is five (5) personnel. Maximums of Eight (8) fire-fighters shall respond to all structure fires.

ii. To ensure compliance with this standard, the shift in charge shall be responsible for maintaining staffing levels at prescribed minimums. To fulfil this responsibility, the shift in charge shall have the authority to assign, move, call-in, or transfer personnel as necessary. Members will be used to supplement minimum staffing whenever possible.

iii. Either the Officer in charge or his designee will be on call at all times and will not count as part of the minimal staffing requirement.

iv. The shift supervisor shall be responsible for staffing a minimum of two (2) fire tenders and one (1) rescue tender.

v. Personnel shall be assigned as minimum staffing crew to the fire station and water rescue team as follows: -

a) **Fire tenders:** minimum staffing shall be five (5) fire-fighters.
b) **Rescue tender**: minimum staffing shall be five (5) rescuers.
c) **Rapid Intervention Vehicle (RIV):** minimum staffing shall be (4) crew
d) **Hazmat Vehicle:** minimum staffing shall be t five (5) hazmat crew
e) **Turn table Ladder**: minimum staffing shall be three (3) fire fighters
f) **Paramedic vehicle:** minimum staffing shall be three (3) medic personnel
g) **Command Car/Vehicle**: minimum staffing shall be two (2) Operation officer
h) **Fire and Rescue Boat:** minimum staffing shall be eight (8) water rescue crew
i) **Water bowser:** minimum staffing shall be two (2) crew
j) **Control Room:** minimum staffing shall be two (2) Control Room Attendants
k) **Standby:** minimum staffing shall be two (2) station security

vi. Whenever fewer than five (5) personnel report for duty, a sufficient number of off duty fire-fighters shall be used to satisfy the minimum staffing requirements, if possible.

3) Responsibilities:

The shift in charge shall:

a) Be accountable for the location and duty status of all personnel assigned to his respective shift. This shall include all personnel who may be temporarily assigned to his shift.
b) Ensure that a daily staffing report is generated and forward it to the Training Officer

c) Approve or disapprove roster shift leave requests.

4) Determine the minimum number of personnel needed for each shift.

To meet operational requirements, it may be necessary that off going personnel be held over until the minimum staffing requirements can be met. Sworn personnel shall not leave their assigned duty post until they are properly relieved. Any member, who leaves an assigned duty station prior to an announcement that on-coming staffing is complete, shall be considered AWOL.

5) Emergency Call-back:

Whenever operational conditions are such that additional personnel are required, one or more off-duty personnel may be called back to duty.

a) Emergency call-backs shall be initiated as follows:

i) On the request of an incident commander, all off-duty personnel shall be called by dispatch and requested to return to duty.

ii) During periods of high activity, off-duty personnel shall be called to return to duty to staff reserve apparatus.

iii) Unless otherwise advised, all personnel answering an emergency call back shall respond to their assigned station. These personnel shall advise dispatch of their availability upon arrival at their station. Dispatch will relay this information to the incident commander.

iv) All off-duty personnel requested to respond directly to an incident shall report to the incident commander for assignment. At no time shall any member begin any task without authorization from the incident commander.

SOP 8. FIRE STATION SAFETY

1) Scope:

This standard establishes safety regulations to be followed by members assigned to a fire station.

- **General:**
  a) Fire stations shall comply with all applicable health, building, and fire code requirements.
  b) All fire stations are designated as tobacco free, and no one will be permitted to smoke or use smokeless tobacco products within a fire station. The use of tobacco will be confined to areas outside the building/apparatus bay areas.
  c) Floors shall be kept clean and free from obstruction. Slippery substances such as water, oil, and other fluids shall not be allowed to accumulate on a floor surface and shall be mopped up as soon as practical.
  d) All tools and equipment shall be maintained in a clean and serviceable condition and shall be returned to their proper places immediately after use.
  e) All flammable and combustible liquids and gases shall be stored in the station's flammable liquid cabinet. The cabinet shall be maintained in a clean and orderly manner and shall be kept free of obstructions.
  f) Prior to each use, all electrical equipment such as extension cords shall be inspected to prevent the possibility of shock or electrocution.
  g) Horseplay is strictly forbidden.
  h) Proper care shall be exercised when using any chemical product, pesticide, solvent, or other harmful or toxic substance.
  i) Caution shall be exercised when using a ladder for cleaning, painting, etc.
  j) All smoke detectors, extinguishers, exit signs, and other safety equipment shall be maintained in proper working order.
  k) Running inside the station is prohibited.
  l) Any defective equipment or unsafe condition shall be reported immediately
  m) Fire stations shall be locked and secured whenever the station is unattended, if possible, without causing delay in response to emergency calls.
  n) Apparatus will not be left running in the engine bays.

- **Responsibilities:**

a) Members shall strictly adhere to all safety regulations.

b) Officers shall be responsible for maintaining their stations in a safe and healthy manner and shall promptly correct any deficiencies.

c) Any member who violates a safety regulation shall be promptly reprimanded and the violation shall be reported to the CGF.

d) The safety officer(s) shall inspect each fire station at least once during each six-month period. The inspector(s) shall check the stations for compliance with all applicable codes and safety standards. The inspection shall be conducted using the departments. Inspection Report Form. A copy of the form will be given to the officer on duty at the time of the inspection and a copy shall be forwarded to the Headquarters.

   i) If possible, corrections should be made immediately.

   ii) If necessary, a re-inspection shall be scheduled prior to concluding the ins

SOP 9: EMERGENCY OPERATIONS/FIRE TENDER PLACEMENT

Scope:

This standard regulates the placement and positioning of emergency vehicles at fire control and rescue incidents.

General Rules for Positioning Emergency Vehicles:

a) Fire vehicles function shall regulate placement. The first-arriving companies should position themselves to maximum advantage and go to work. Later-arriving units should place themselves in a manner that builds on the initial plan and allows for expansion of the operation. However, at no time shall Fire and Rescue Tenders be positioned in a manner as to place it in an unnecessarily dangerous position.

b) Fire and Rescue Tenders that are not being used should be staged in an uncommitted position that will not congest the incident site.

c) When placing or positioning an emergency vehicle at an incident, consider the following items:

   i) Leave an access lane open down the centre of the street.

   ii) Do not park in such a manner as to make the emergency vehicle an exposure.

   iii) At fires, attempt to position the Fire and Rescue Tenders away from heat, smoke, and guard against building collapse.

   iv) Do not allow the Fire and Rescue tenders to become trapped. Allow adequate room to reposition the Fire and Rescue engines if necessary.

   v) Beware of overhead power lines.

   vi) Try to use hose and equipment off of fire tender at the immediate scene to maintain better control and so as to not strip from all of the Fire and Rescue tenders.

   vii) When necessary, an officer shall be assigned to stage Fire and

Rescue engine and deploy them per the Incident Commands request.

viii) Do not park too close to another emergency vehicle. Allow sufficient room to deploy hose lines and to remove ladders and other equipment from the vehicles.

d) The first-arriving fire tender at a fire should normally proceed just past the front of the fire, laying a supply line if necessary. (“Front” does not necessarily mean the front of the building. It may mean the area of heaviest involvement or primary access.)

e) Position the fire tender to use its deck gun, floodlights, etc. Take care to leave room for truck or support companies. If the building has a wide frontage, position the engine at the entrance that provides the best access to the fire.

f) Unless otherwise directed, the second arriving fire tender at a working fire should proceed to the rear or secondary access point and go to work.

g) If nothing is showing, the second arriving engine should stage at the nearest hydrant and await orders, especially if the first-arriving engine did not lay hose.

h) Truck companies should initially stage in such a position as not to congest the incident scene.

i) Additional arriving companies should stage away from the scene and request orders from the Incident Commander or the staging officer. All personnel shall remain at their staged apparatus until ordered to the emergency scene. Companies should only commit when ordered to do so. These companies should report the number of personnel in their respective companies, as well as their staging location. Example: “Engine 1” is staged one block south with two personnel.

3) Medical incidents:

a) If the Fire and Rescue Tenders arrive before the paramedic unit leave clear access for the medic unit and do not block the incident site.

Due to the danger of oncoming traffic at motor vehicle accidents, park the equipment’s so as to provide a barrier for emergency personnel and to block traffic if necessary.

SOP 10. LOST/DESTROYED EQUIPMENT

I) Scope:

a) This standard sets forth the requirements for reporting the loss or destruction of equipment owned or operated by the Force.

II) Reporting Procedure:

a) On discovery that a piece of equipment has been lost, damaged, or destroyed, a member shall record his findings and forward a report of such information through the chain of command to the Fire Officer In charge.

III) Responsibilities:

a) It is the responsibility of each officer to maintain all equipment assigned to his station and Fire and Rescue Tenders in a constant state of readiness. To facilitate this process, each equipment is to be inspected and inventoried at the beginning of each shift or training night and after each incident during the process of returning the Fire and Rescue Forces to service.

b) It is the responsibility of every member of the department to properly use and maintain the equipment assigned to him.

IV) **Accountability**:

a) The deliberate or wilful misuse, theft, loss, damage, or destruction of any tool, equipment, or other device owned by the force or other agency or private individual will result in appropriate disciplinary action.

b) As part of the disciplinary process, the individual(s) responsible for the loss or destruction may be required to reimburse the department for the costs to repair or replace the equipment.

SOP 11. PERSONS RIDING IN MOTORIZED VEHICLES

1) Scope:

This procedure shall apply to all persons riding in or on a motorized vehicle owned or operated by the Force.

2) General:

a) No one shall be allowed to ride in Fire and rescue tenders unless he is a member of the force or has obtained special permission to ride as an observer (such as Explorers). Observers must complete the Authorization to Ride Fire and rescue tenders Release.

b) Persons riding in or on a motorized vehicle shall observe the following:

i) All persons shall be seated in an approved riding position and shall be secured by a seat belt anytime the vehicle is in motion.

ii) Riding on the tailboard, running board, or other exposed position is strictly prohibited.

iii) Standing while riding is prohibited.

iv) At no time shall anyone dismount a vehicle while it is still in motion.

v) All persons riding on Fire and Rescue tenders that requires ear protection shall wear the ear protection devices provided while the vehicle is in motion and whenever the audio warning devices are in use.

3) Responsibility:

a) It shall be the responsibility of each member to comply with the provisions of this standard.

b) Drivers shall not operate their vehicles unless everyone on board is in compliance with the provisions of this standard.

c) Officers shall be strictly accountable for enforcing the provisions of this standard and shall correct any violations that are observed.

d) Failure to comply will result in disciplinary action

2) Categories of Response:

1. Emergency: Those incidents that pose a significant risk to life or property. Emergency response requires the use of all audio (siren and air horn) and visual (lights) warning devices. These devices must be in use during the entire duration of the response unless the response is downgraded to a non-emergency by a competent authority. The initial response to the following types of incidents shall be considered emergencies:

    i) A reported fire in a structure.

    ii) A reported fire outside of a structure that involves the potential destruction of property or poses a risk to human or animal life.

    iii) All categories of emergency medical incidents except non-life-threatening incidents.

iv) Responses to a man-made or natural disaster involving the destruction of property and the potential for injury and death.

v) Fire alarms until confirmations received that non-emergency.

2. Non-emergency: Those incidents that do not pose a significant risk to life or property. Audio and visual warning devices shall not be used during non-emergency response unless ordered by a competent authority to upgrade the response to emergency status. The initial response to the following types of incidents shall not be considered to be emergencies:

3) Response Guidelines:

1. Fire and rescue vehicles engaged in non-emergency response shall obey all applicable traffic safety rules and regulations and shall not exceed the posted speed limit.

2. Fire and Rescue vehicles engaged in emergency response shall at all times govern their response by the traffic, the weather, and road conditions present at the time of response.
3. The maximum speed of travel shall not exceed posted speed limits by more than 100km/h. Due regard must be shown at all times, regardless of speed
4. During an emergency response, drivers shall bring their vehicles to a complete stop for any of the following:
    i. When directed by a law enforcement officer.
    ii. Stop signs.

iii. Red traffic signals.
iv. Negative right-of-way intersections.
v. Blind intersections.
vi. When the driver cannot account for all lanes of traffic in an intersection.
vii. When other intersection hazards are present.
viii. When encountering a stopped school bus with flashing warning lights.

5. Drivers shall proceed through an intersection only when the driver can account for all lanes of traffic in the intersection.
6. Drivers shall bring their vehicles to a complete stop at all unguarded railroad crossings and shall not cross the tracks until determining that it is safe to do so.

4) Responsibilities:
   a) Drivers shall be directly responsible for the safe and prudent operation of their vehicle in all situations.

   b) When a driver is under the direct supervision of an officer, the officer shall assume responsibility for the actions of the driver and shall be responsible for immediately correcting any unsafe condition

SOP 12. FIRE AND RESCUE STATION TRAINING

1.0 SCOPE:

All training activities shall be conducted by and coordinated through the Fire and Rescue Training Officer. A quarterly training schedule will be published by the Fire Training Officer, and distributed to each fire station. The Regional Training Officer will conduct at least 10 hours of training for his/her station monthly.

This standard applies to all training conducted by or for the department. It was promulgated to:

a) Prevent occupational accidents, deaths, injuries, and illnesses.
b) Ensure that all members are able to properly perform their assigned duties in a safe manner.

2.0 GENERAL:

a) The department shall provide training and training opportunities to its members to update them on new practices and techniques and to help them maintain individual skill levels. Training records will be kept on each firefighter to include fire officers using an automated product. All certificates of courses successfully completed by fire department personnel will be on file at each department and in the Fire Administration office. A copy of this training report will be sent to the Training Officer immediately upon the completion of each training class

    i) The RFO will appoint a Training Officer for in every Fire stations.

    ii) The Training Officer will have a prepared training program or classroom activity for each training meeting

    iii) All training hours will be sent to the Standards and Training annually by

the Training Officer (January).

iv) Sufficient training will be scheduled each calendar year to allow members to maintain their First Responder certifications.

v) This scheduled training may be from this department, the Public Training Centre, or any other similar agencies.

vi) FRF officers will obtain a minimum of 16 hours of officer training annual.

vii) A minimum of 2 hour of training per shift will be required for all firefighters or a minimum of 20 hours monthly.

b) All emergency medical training shall be approved by the CGF or His designee and shall be taught by a certified instructor.

c) All fire suppression and rescue training shall be approved by the CGF and shall be conducted under the supervision of a certified instructor.

d) Each shift shall maintain certified in-service instructors. Under the direction of the Training Officer, these instructors shall conduct the in-service training classes for their respective shifts. These classes may be assigned by the shift in charge, the Training Officer, or the RFO.

e) All training involving live-fire exercises shall be conducted in compliance with laws and regulations.

f) Each member shall be responsible for maintaining his fire and skills at a level sufficient to retain the certifications required for his job and to meet the established minimum standards of performance.

g) Officers shall ensure that all members under their command maintain their certification and skill levels. The officer shall also be responsible for maintaining his company's certification and skill level sufficient to meet the established minimum standards of performance.

The Regional Fire Officer may excuse a firefighter or officer from training for:

a) Sickness
b) Schooling
c) Other Fire Training
d) Death in the family

Any firefighter or company officer who attains two consecutive unexcused absences from scheduled monthly fire training will be subject to disciplinary action. Make-up training for firefighters who missed classes during this time can be accomplish by attending other district training classes.

Fire and Rescue Force Training Program will be incompliance with the force Laws and regulation. The Fire Training Officer will schedule once a quarter an exercise that will involve more than one regional.

The following are the required training classes for members of Fire and Rescue Force:

a) Fire Behaviour
b) Portable Fire Extinguishers

c) Personal Protective Clothing
d) Forcible Entry

All live fire training must be approved through the CGF office. During all live fire training, all firefighters uniform. Firefighters who have not successfully completed Basic Firefighter are not eligible to participate in live fire training.

Fire and Rescue Standard Operating Procedures concerning Rehab will be used at all live fire training.

a) Ventilation
b) Ladders
c) Water Supply
d) Fire Streams
e) Hose
f) Fire Control
g) Stations Familiarization
h) Drivers Training/Pump Operation (12 hours annually

1.0 FIRE STATION TRAINING PROGRAM

This training program provides a balanced schedule throughout all scheduled training topics and objectives to ensure that all Fire Station Personnel are trained in all disciplines and hazards encountered within their area of work.

The program will be combined with minimum standards, specialty training, operational scenarios, and scheduled opportunity training to form a comprehensive training program to meet the current as well as the future needs of the Force.

The program includes discipline specific specialty training for the Special Operations Team (SOT). The inclusion of this discipline within the training plan ensures that all training is accounted for and that all members of the Station receives the training necessary to perform the duties required.

The program is directed at all personnel, regardless of rank. This will serve all personnel in scheduling and time management of all activities required by the Force.

The program may be modified as the year progresses to include other training opportunities that are made available or organizational directions or deficiencies that are identified.

The program is designed to encompass and schedule as many events as accurately as possible for the purposes of time management and efficiency throughout the year.

The management of the program is the responsibility of the Operations and Training Officer. However, it is the responsibility of all personnel to utilize the components of the program to balance training as well as other daily responsibilities necessary for Fire Station operations.

The program will remain the ultimate authority for training topics and any changes Shall be approved by the Commissioner of Operations.
The training program continues to serve as a comprehensive all-hazards approach that meets or exceeds Fire and Rescue Force Regulations as well as the needs of Fire and

Rescue Force Personnel. This approach allows the Force to maintain its operational and response capabilities to the Country.

The program will require individuals to increase their knowledge and skills in all response disciplines while simultaneously allowing individuals to specialize in subjects according to their abilities and interest.

The program is designed to be specific yet allow for flexibility in the event of training that is made available or as Force needs dictate. The program includes a detailed calendar for the year which will allow the Station Officers and Command Staff to balance other duties and priorities throughout the course of the year.

Also allows for individuals to participate in training opportunities necessary for individual improvement, promotional requirements, and self-development. This also allows personnel to pursue areas of interest and expertise allowing them to specialize in particular disciplines as well as preparing them for the future of the Force.

The ultimate goal of this training program is to increase the level of response capability. This will allow all emergency incidents to be handled more efficiently and safely for everyone involved and increase the overall capabilities of the Force.

This Training Program establishes the minimum training hours per discipline as well as the objectives for each training session for scheduling and to ensure that training requirements and expectations are met.

The program details the scheduled training topics and objectives for each month and may be modified as the year progresses to include other training opportunities that are made available or organizational directions or capabilities that are identified and approved by Force.

The following training topics shall be focused in this program. The program includes the topic and primary objectives for each of the topics. It also includes the established dates and lesson plan for each topic so that instructors may be guided throughout the training hence development.

Subjects	**Hours**
Fire Operations	82
Hazardous Materials	4
Technical Rescue	50
Driver/ Operator	8
Fire Safety Inspection	14
First Aid	14
Physical Training	96
Squad Drills	120
Work Health and Safety	4
Total	**392**

3.1 Training Subjects Details

S/N	**SUBJECTS**	**TOPICS**	**CODE**	**HRS**
1.	Fire Fighting	Forcible Entry Tools	FET	6
		Preliminary Details 1-4	PRD	10
		Hose Drills	HD	10

		Hydrant Drills 1-7	HYD	14
		Pump Drills 1- 7	PD	14
		Ladder Drills 1- 8	LD	22
		Breathing Apparatus	BA	6
2.	Hazardous Materials	Hazardous Materials Awareness	HMA	4
3.	Technical Rescue	Rope Rescue	RR	10
		Confined Space Search and Rescue	CSSR	10
		Vehicle Extrication	VE	10
		Water Rescue	WR	10
		Structural Collapse Search and Rescue	SCSR	10
4.	Driver/ Operator	Pump Operations	PO	5
		Water Supply	WS	3
5.	Fire Safety Inspection	Fire Inspection and Report Writing	FI	4
		The Fire and Rescue Force (Fire Precautions in Buildings) Regulations 2015	FPBR	10
6.	First Aid		FA	14
7.	Physical Training		PT	96
8.	Squad Drills	(daily 30min)		120
9.	Work Health and Safety		WHS	4

3.2 Lesson Plan

1.	Fire Operations	**FORCIBLE ENTRY TOOLS** **Introduction:** **Objective:** At the end of the training fire fighters will be able to identify forcible entry tools and operate them safely and appropriately. **Body:** **Contents:** ▪ Define forcible entry tools ▪ Categories of forcible entry tools ✓ Cutting tools ✓ Pulling and pushing tools ✓ Turning over tools ✓ Prying tools ✓ Striking tools ✓ Miscellaneous ▪ Safety operation of forcible entry tools	- Salvage sheet - Forcible entry tools present. - Projector - Blackboard or Whiteboard - Chalks or White board markers	**5mn** **3hrs50mn**

		▪ Practical operation of forcible entry tools **<u>Conclusion</u>:**		**5mn**
		<u>HOSE, FITTINGS AND HOSE DRILL</u> **<u>Introduction</u>** **Objectives:** Fire Fighters will be able to: - familiarize with hose construction, types and hose fittings - practice proper maintenance of hose and hose fittings **<u>Body:</u>** **Contents:** **1. Hose** • types of hose and their construction • Characteristics of a good hose • Damage of hose – causes and prevention	- Different types Hoses - Hose fittings - Hose Appliances - Hose Tools - Different types of nozzles/branches - Hydrant operation tools - Salvage sheet - Physical visit of hydrants	**5mn** **3hrs50mn**

		• General cleaning and maintenance of hose **2. Hose Fittings** • Couplings - Threaded or Screwed - Snap or Instantaneous - Storz or Hermaphrodite • Hose Appliances - Valves - Breechings - Collecting Head - Adaptors - Reducers - Intake devices – metal & basket strainers • Hose Tools - Hose Roller (hoist) - Hose Jackets - Hose Clamps - Wrench/Spanner - Hose Ramp/Bridge **3.** Nozzles/Branches **4.** Hydrants - Types of hydrants – pillar and underground		**<u>2hrs</u>**

		- Hydrant Operation Tools – hydrant cover key, adaptor, standpipe, key and bar
		• Hose Drills
		  - Hose running
		  - Under-run
		<u>Conclusion:</u>		

		Preliminary Details 1-4		
		Pump Drill (Using Portable Pump) **<u>Introduction</u>** **Objectives** Fire Fighters will be able to: • Carry a portable pump • Site a portable pump • Operate a portable pump • Operate portable pump delivery multiple jet **<u>Body</u>** • Apply Preliminary Detail No. 4 and Pump Drill No.6	- Portable pump - 2 delivery hoses - 1 suction hose - Basket strainer - Metal strainer - Line - Suction range	**15mn** **1hr40mn**

		• Pump carrying from the Fire Tender No. 1 Front nearside No. 3 Rear nearside No. 2 Offside of No,1 No. 4 Rear offside • No. 5 carries suction range, suction hose and line • **Drill** 2 lines delivery hose 1 length each		**5mn**
		<u>HYDRANT DRILLS 1-7</u> **<u>Drill H1</u>** **Introduction** Laying one line of hose from a hydrant (Crew of Four) **Objectives** This drill will enable the fire fighters: - To ship the standpipe - Demonstrate the correct method of carrying hose - Run out lengths of rolled, Dutch and flaked hose	- Standpipe - Branch - 3 Hoses	**2hr**

		- Demonstrate the method of connecting lengths of hose - Carry a branch and a length of hose - Connect the branch to the hose - Demonstrate the method of manoeuvring a charged length of hose - Demonstrate the method of holding a branch - Operate a branch - Operate a hydrant - Disconnect a length of hose - Under-run a length of hose - Make-up length of hose **<u>Drill H2</u>** **Introduction** Adding a length of hose (crew of four) **Specific Objectives** **H1** provides the core objectives of this drill.	- Standpipe - Branch - 3 hoses	

		Fire Fighters will be able to: - Add a length of hose to a line of hose - Describe the method of adding a length of hose ***Note*:** It will be assumed that the hose has been run out as in Drill H1. Unless otherwise ordered, when working in the open a length of hose is always added between the branch and the last coupling. When working in building, the length is usually added at the first coupling outside the building. **<u>Drill H3</u>** **Introduction** Removing a length of hose (crew of four) **Specific Objectives** **H1** provides the core objectives of this drill. Fire Fighters will be able to:		**2hrs**

		- Remove a length of hose from a line of hose - Describe the method of removing a length of hose ***Note*:** It will be assumed that the hose has been run out as in Drill H1. **<u>Drill H4</u>** **Introduction** Replacing a burst length of hose (crew of four) **Specific Objectives** H1 provides the core objectives for this drill. Fire Fighters will be able to: - Describe the procedure for removing a burst length of hose from a line of hose - Replace a burst length of hose in a line of hose - Demonstrate the method used to identify a burst length of hose	- Standpipe - Branch - 3 hoses - Standpipe - Branch - 4 hoses	**2hrs**

		- Make up a burst length of hose ***Note*:** It will be assumed that the hose has been run out as in Drill H1 **<u>Drill H5</u>** **Introduction** Getting a branch to work on a roof or upper floor (crew of four) **Specific Objectives** H1 provides the core objectives for this drill. Fire Fighters will be able to: - Run out hose in preparation for handling aloft - Secure a fine to the hose for the purpose of handling aloft - Haul a line of hose aloft - Secure a line of hose aloft - Manoeuvre a charged line of hose and operate a branch on a roof or upper floor **<u>Drill H6</u>**	- Standpipe - Branch - 3 hoses - Ladder	**2hrs**

		Introduction Dividing a length of hose into two using a dividing breeching (crew of five) **Specific Objectives** H1 provides the core objectives for this drill. Fire Fighters will be able to: - Describe the procedure for adding and operating a dividing breeching - Add a dividing breeching to a line of hose - Operate branches fed from a dividing breeching ***Note*:** It is assumed that the hose has been run out as in Drill H1 using a crew of Four. A fifth crew member must be added to the crew as two branches are involved and two crew members are needed for each branch in addition to the fire fighter at the hydrant	- Rope - Standpipe - Branch - 3 hoses - Dividing breeching	**2hrs** **2hrs**

		<u>Drill H7</u> **Introduction** Removing a dividing breeching (crew of five) **Specific Objectives** H1 provides the core objectives for this drill. Fire Fighters will be able to: - Describe the procedure for removing a dividing breeching - Remove a dividing breeching from a line of hose	- Standpipe - Branch - 3 hoses - Dividing breeching	**2hrs**
		BREATHING APPARATUS **Introduction** **Objectives** Fire Fighters will be able to; - Build competency in thru use of BA - Ensure the safety of individual BA wearer		**5mn**

		- Ensure the safety of other BA wearer at the same incident **Body** • Important terminologies - Access point/exit point - Automatic distress signal unit - Breathing Apparatus Team - Bridgehead - Distress Signal Unit - Emergency Team - Entry Control Board - Entry Control Officer - Entry Control Point - Entry Control Unit - Full Duration - Working Duration - Risk Area - Route - Safe Air - Safety Margin - Team Leader • Types of SCBA • Parts of SCBA • Donning/Doffing procedures • Basic safety guidelines		

		• Confined space control and communication procedures • Inspection and Maintenance **Conclusion**		**4hrs20m**
		LADDER DRILLS **<u>Drill L1</u>** **Introduction** Slipping and pitching a 9m or 10.5m ladder (crew of three) **Specific Objective** Fire fighters will be able to: - Operate the mechanism used to secure the ladder to the appliance - Slip the ladder from the appliance - Carry and position the ladder - Pitch the ladder - Give the appropriate words of command - Under run the ladder - Brace the ladder - Foot the ladder		**3hrs**

		- Extend the ladder - Pawl the ladder - Make up the ladder - Climb and descend the ladder - Take a leg and lock on the ladder - Slip off the ladder - Explain head in and head out - Slow the ladder on the appliance. ***Note:*** Preliminary Detail as given in Pd. 2 **<u>Drill L2</u>** **Introduction** Slipping and pitching a 9m or 10.5m ladder (crew of four) **Specific Objective** L1 provides the core objective for this drill. ***Note:*** Preliminary Detail; as given in Pd.3 **<u>Drill L3</u>** **Introduction**		

		Slipping and pitching 13.5m ladder (crew of four) **Specific Objective** L1 provides the core objective for this drill. Fire fighters will be able to: - Under run the ladder using the props - Site the prop on the ground - Plumb the ladder - Using the props, place the head into the building - Explain procedures to be adopted when the ladder is to be used in high winds - Explain the purpose of props - Explain the term “step in” “step out” ***Note:*** Preliminary Detail; as given in Pd.3 **<u>Drill L4</u>** Introduction		**3hrs** **3hrs**

		Slipping and pitching a 13.5m ladder to the face of the building over an obstruction (crew of four), Props to the face of ladder. **Specific Objective** L1 and L2 provide the core objective for this drill. Fire fighters will be able to: - Explain the purpose of the drills - Explain the purpose of the props forming the “A” Frame ***Note:*** Preliminary Details; as given in Pd.3 **<u>Drill L5</u>** **Introduction** Pitching 13.5m ladder in a confined space (crew of four). **Specific Objective** L1 and L3 provide the core objective for this drill. Fire fighters will be able to:		**3hrs**

		- The meaning of the term "Tilt" **<u>Drill L6</u>** Introduction Bridging a 10.5m or 9m (crew of four). **Specific Objective** L3 provide the core objective for this drill. Fire fighters will be able to: - Explain the method of bridging a ladder - Make a step ladder using two section of ladder - Make support for the bridging ladder a step ladders a hydrant key - Position and extend the bridging ladder to form a bridge - State the maximum distance and other safety factors to be considered when bridging		**3hrs**

		Note: Preliminary Details; as given in Pd.3 **<u>Drill L7</u>** **Introduction** Bridging a 13.5m or 9m (Crew of Five). **Specific Objective** L3 provide the core objective for this drill. Fire fighters will be able to: - Explain the method of bridging the ladder - Construct an “A” frame using the section of short extension - Make a support for bridging the ladder using “A” Frame and hydrant key and bar - Position and extend the bridging ladder to form a bridge - State the maximum distance for bridging and other safety		**3hrs**

		factor to be considered when bridging This is one method of carrying out a 13.5m bridging drill. Fire station with other equipment may use other methods provided safety is considered. ***Note:*** Preliminary Details; as given in Pd.3 **<u>Drill L8</u>** **Introduction** Removing and splitting a 10.5m (Crew of Five). **Specific Objective** L1 provide the core objective for this drill. Fire fighters will be able to: ***Note:*** Preliminary Details; as given in Pd.3		**3hrs** **3hrs**
2.	Hazardous Materials	**<u>HAZARDOUS MATERIALS AWARENESS</u>** **<u>Introduction</u>**	- Blackboard or whiteboard	

		Objectives: This will provide the Fire Fighters with the knowledge and skills to understand and recognize what substances are and the risk associated with them in an incident. And be able of selecting and using proper protective equipment. **<u>Body:</u>** • Characteristics of Hazmat • Classification and labelling of Hazmat • Hazmat Identification Numbers • Hazchem Codes • Biohazards • Operating Procedures - Upon arrival ▪ Size up – the objective of size-up is to identify the nature and severity of the immediate problem **<u>Conclusion:</u>**	- Chalks or whiteboard markers - Placards/signs - Projector	**5mn** **2hrs50mn** **5mn**

3.	Technical Rescue	**ROPE RESCUE** **Introduction** **Objectives:** Fire Fighters will be able to: - Identify the different materials that fire service rope is constructed from and their characteristics. - Describe the difference between life safety rope and utility rope. - Define the basic terminology used when discussing ropes and knots. - Identify the basic knots used by the fire service, how to tie each of them, and their uses. - Describe the proper methods of inspection, maintenance, and storage of ropes.	• Equipment - Calabinas - Ventricle broker - Hand broker - Peddle - Back and chest strap - D calabin * - Half moon(calabin a) - Pulley(Descended 04,Discender 09) - Type 8 descended - Sewing ring(blue and red) - Waist harness - Tripod - Rope rescue gloves	**5mn** **5hrs50mn**

		- Describe the method of rigging basic firefighting equipment to be hoisted. **<u>Body</u>** • Definition • Software - Ropes - Harness - Tapes & slings - Accession Slings - Personnel Slings • Types of rope - Static and dynamic ken mantle - Solid braid • Characteristics of ropes • Rope hazards. • Harnesses • Tape slings and loops • Rope rescue accessories/hardware - Karabiners & Delta Malians - Descending devices - Ascending devices	- Helmet	

		- Pulleys - Rope grabs • Knots • Anchors • Communication - Voice - Signal • Techniques and tactics of rope rescue. **Conclusion:**		**5mn**
		CONFINED SPACE RESCUE **Introduction** **Objectives:** This will provide the Fire Fighters with the knowledge and skills in techniques and tactics used during confined space search and rescue operations; Identify the risk associated in confined space. And be able to select and using proper protective equipment concerning confined space. **Body**	- Breathing Apparatus - Rescue rope - Protective cloth - Helmet - Gloves - Positive pressure ventilation fan	**5mn**

		• Definition
		• Confined space rescue categories
		  - Self rescue
		  - Non-entry rescue
		  - Entry rescue
		• Terminologies
		  - Confined space
		  - SCBA
		  - SCUBA
		  - Face mask
		  - Back park
		  - Cylinder
		  - Lung demand valve
		  - Or nasal mask
		  - Air bossier
		  - Air pressure
		  - Whistle
		  - Shoulder belt
		  - Waist belt
		  - Doffing
		  - Donning
		  - B.A.E.C.O
		  - Full duration
		  - Working duration
		  - Safety margin
				5hrs 50mn

		- High pressure hose - Low pressure hose • Safety and rescue • Management of confined space team. **Conclusion**		**5mn**
		<u>ROAD TRAFFIC ACCIDENT</u> **<u>Introduction</u>** **Objectives** Fire Fighters will be able to; Describe the systematic approach to vehicle rescue; List the priorities at a vehicle rescue incident; Demonstrate the effective use of lifting and cutting equipment; Carry out as an individual and as a team member effective vehicle rescues at a simulated incident. **<u>Body</u>:** • Personal Protective Equipment	• Rescuer PPE - Rescue gloves - Helmet - Dust mask - Boots - Visors - Patient PPE • Extrication tools - Cribbing - Struts - crash kit - hydraulic set	5mn

		• 8 Stages of Vehicle Rescue Operations - Preparation - Response - Incident Management **Hazard Control** Power lines and power supplies Fuel spill - potential for fire Unstable vehicles or loads Traffic hazards Crowd hazards Dangerous goods - hazardous materials - Gaining Access - Emergency Care - Disentanglement - Separating - Removal and Transfer - Termination • Vehicle Construction - Structure - Material used in vehicle construction • Extrication equipment's - Hydraulic - Pneumatic		**5hrs50mn**

		• Chronological sequence of a road rescue intervention - General Conduct of Operations - Protection - Signalling - Calibration - Linking phenomena - Extrication techniques - The different methods of victim extraction • Extrication exercise **<u>Conclusion</u>**		**5mn**
		<u>WATER RESCUE</u> **<u>Introduction</u>** **Objectives** ➢ Have knowledge about water environement. ➢ Master some swimming techniques ➢ Complete swimmer test ➢ Recover underwater weight ➢ Provider assistance to persons in difficulty on a	- Boyars - Snooker - Google's - Swimming suit - Fins - Swimming shoes - Life ring	**5mn**

		water course as part of a rapid rescue operation effort. ➢ Adapt to the situation and the environment in which they intervene. ➢ Know how to quickly and professionally remove a person in danger from the sea or river … etc **<u>Body</u>** - Safe Swim Defence - Swim classification tests - Emergency recognition & planning - Water rescues in shore-line - In-water rescues **<u>Conclusion</u>** **Standard of DMI should be considered.**	- Life jacket - Boat	**5hrs50mn** **5mn**
		<u>STRUCTURAL COLLAPSE</u> **<u>Introduction</u>** **Objectives**		**5mn**

		The specialty of search and rescue allows to intervene: - In reconnaissance - In Rescue And in Securing site. **<u>Body</u>** • Basic structural systems • Light frame structural size-up and response - Establish command - Survey incident area - Check building condition - Surface victims - Need for mutual aid • Hazards - Utilities - Hazmat - Personal hazards - Confined space - Other hazards • FAST VOID - Fire suppression - Additional collapse potential		**5hr50mn**

		- Structure type and condition - Trapped victims - Void type and location - Occupancy type/hazards - Immediately shutdown utilities - Day or night - Situation • Cause of collapse - Natural disasters - Overloading of structural components - Structural aging/deterioration - Explosion - Intentional - Fire - Collision impact - Terrorism • Potential collapse indicators • Phases of response - Initial response - Void space rescue - Technical rescue team		

		• Collapse Pattern - Light frame collapse pattern - Heavy wall collapse patterns - Heavy floor collapse patterns - Pre-cast concrete collapse patterns • Structure Triage Criteria Occupancy Structural type Collapse mechanism Time of day Prior intelligence Search and rescue resources available Structural condition of the building • Initial Company Operation - Establishment of strong visible command - Identify the need for technical rescue - Conduct rapid size-up ✓ Size of structure		

		✓ Occupancy type ✓ Structure type ✓ Collapse mechanism ✓ Weather ✓ Exposures ✓ Time of day ✓ Location of victims - Recognize and mitigate existing hazards ✓ Gas ✓ Electric ✓ Water ✓ Hazmat - Establish scene control ✓ Isolate bystanders, family, personnel ✓ Banner tape, cones, police ✓ Set up collapse zones - Complete survey of all six sides of the structure **<u>Conclusion</u>**		**5mn**
4.	Driver/ Operator	**<u>DRIVER/ OPERATOR</u>** **Introduction**		**10mn**

		Objectives Drivers/pump Operators will be able to: • Identify the role of driver/operator in the safe operation of fire tender/engine **Body** • Types of fire tender and their components - Water tender - Foam tender - Pumper - Ladder truck • Water supply for fire fighting • Fire ground hydraulic - Pressure - Volume - Friction loss - Discharge rate • Fire tender checkout and maintenance Periodic fire tender inspection • Pump operation and maintenance		**4hrs45mn**

		Recommended pump operation procedures Periodic pump inspection Pre and Post fire pump maintenance • Approaching the fire-ground - Effects of vehicle control of a liquid surge on the roadway - Effects of the fire tender load on a control of a vehicle on a wet roadway - Principles of the safe right driving of a fire tender - Principles of the safe night driving of a fire tender • Foam Operation - Preparation of batch-mix foam - Operation of in-line inductor - Operation of the pump proportioning system • Apparatus Safety ❖ Perform		

		- Test no-load governed engine speed - Test pump shift indicator - Test pump engine control interlock - Test gauges - Test internal relief valve - Test priming system **Conclusion**		**5mn**
5.	Officer Development	Standard Operating Procedures		
		Fire Inspection and Report Writing		
		<u>FIRE AND RESCUE FORCE (FIRE PRECAUTIONS IN BUILDINGS) REGULATIONS 2015</u> **<u>Introduction</u>** **Objectives**		

		Fire Officers will be competent in advocating and consultation on the Fire and Rescue (Fire Precautions in Buildings) regulations 2015 **<u>Body</u>** • PART I: Preliminary Provisions • PART II : Means of Escape • PART III: Structural Fire Precautions • PART IV: Site Planning and External Fire Fighting Provision • PART V: Electrical Power Supplies • PART VI: Fire Fighting Systems • PART VII: Mechanical Ventilation and Smoke Control System • PART VIII: Other Systems • PART IX:		**9hrs**

		Miscellaneous Provisions **<u>Conclusion</u>**		
	First Aid	**<u>Introduction</u>** **Objectives:** Fire Fighters will be able to: - List the principles of first aid - Recognize the role and importance of first aider - Apply safety measures against infection **<u>Body:</u>** **Contents** • Introduction to first aid - First aid team qualities and duties - Steps to remember in providing first aid - Principles of first aid management - Protection and safety - Rules of first aid. (Protection, Alert and Rescue)	- Rhesus-Anne for (CPR) - Ambubag and mouth piece. - First aid Kit	**5mn** **14:15hrs**

		• Multiple casualty and injuries. - Performing primary and secondary survey - Vital signs - Emergency clearance • Principles of basic life support (BLS) - Physiology of respiratory system - Methods of opening the airway - Asses breathing and circulation - Cardio-pulmonary resuscitation (CPR) - Performing recovery position • Wound and Bleeding - Classification of wound - Clinical features of wound - Danger of wound - General management of wound		

		- Classification and features of bleeding - Causes of bleeding - Dangers of bleeding - General management of bleeding • Haemorrhage - Definition - Types of blood vessels - Types of haemorrhage - Classification of haemorrhage - Clinical features of haemorrhage - Complication of haemorrhage - General management of haemorrhage • Poison - Ways of Exposure to poison - Types of poison - Causes of poisoning - Clinical features of poisoning.		

		- General management of poisoning. • Burns and scalds - Definition of burns and scalds. - Types of burns and scalds. - Levels of burns and scalds. - Clinical features of burns and scalds. - The rule of “9” - General management of burns and scalds. • Drowning - Definition of drowning - Causes of drowning - States of drowning - General management of drowning. • Heat related condition - Heat exhaustion - Heat stroke (hyperthermia) - Hypothermia - General management (relief actions toward both) • Road / motor traffic accident (MTA)		

		- Definition - How to manage and evacuate the victim. - General management of victim. • Casualty handling - Definition - How to manage casualty - Emergency clearance of casualty. - How to move the casualty safely - Discuss different ways of lifting casualty. **Conclusion.**		**5mn**
6.	Physical Training			**104**

3.3 Time Table

Week 1	Mon	Tue	Wen	Thu	Friday
Activity					
Week 2	Mon	Tue	Wen	Thu	Friday
Activity					
Week 3	Mon	Tue	Wen	Thu	Friday
Activity					

Week 4	Mon	Tue	Wen	Thu	Friday
Activity					

4.0 OFFICERS TRAINING

1) Scope:

This policy applies to departmental officers training. It was promulgated to establish a uniform policy for recording training hours, personnel and instructors.

2) General:

All in-service training shall be recorded on a Department Training Log.

3) Responsibilities:

It is the responsibility of the Shift Supervisor or Training officer to take role and place information for all In-Service Officer Training on the Training log. All students shall be required to sign this form as well as the Instructor. The Department Training Officer shall maintain a Training Log on each Firefighter. Courses taken at the Fire training Centre or similar facilities shall be accepted as well.

4) Objectives:

All training will be objective based. It will be recorded, including date, credit hours, name of instructor, and an objective number listed in the appropriate.

5) General Requirements:

All officers shall be required to attend a minimum of a twelve (12) hours class on Officers Training to be held annually.

5.0 TRAINING CLASSES

5.1 Drivers Training

1) Scope:

This policy applies to department driver training. It was promulgated to establish a uniform policy for recording training hours, personnel and instructors.

2) General:

All in-service training shall be recorded on a Department Training Log.

3) Responsibilities:

It is the responsibility of the Shift Supervisor or District Training Officer to oversee and ensure that all personnel receive the required Drivers/Operators Training.

4) Objectives:

All training will be objective based. It will be recorded, including date, credit hours, name of instructor, and an objective number listed in the appropriate or VFIS Emergency Driver/Operator Course.

5) General Requirements:

It is required that all members shall receive three (3) hours quarterly of continuing Drivers Training. Training shall be conducted at our approved drivers training facility Classes will cover all Vehicle Operation Skills and Driving, Pump Operations, Emergency Equipment Familiarization, and a written test will be administered covering all required DOT equipment, resource information, DOT Hazardous Chemical Handbook, and local and state laws that apply, as outlined in the VFIS program.

Members who successfully complete the VETA Emergency Vehicle Operators Course (EVOC) may use those training hours towards the completion of the required continuing Drivers Training.

6.0 TRAINING CLASSES

6.1 Training Log

1) Scope:

   This policy applies to department in service training. It was promulgated to establish a uniform policy for recording training hours, personnel and instructors.

2) General:

   All in-service training shall be recorded on a Department Training Log.

3) Responsibilities:

   It is the responsibility of the Shift Supervisor or Training Officer to take role and place information on the log. All students shall be required to sign this form as well as the Instructor. The Department Training Officer shall maintain a Training Log on each Fire-fighter.

4) Objectives:

   All training will be objective based. It will be recorded, including date, credit hours, name of instructor, and an objective number listed in the appropriate FRF Manual.

5) General Requirements:

   a) Each Fire-fighter must attend a minimum of 20 hours each month.

b) Each volunteer Fire-fighter must attend a minimum of 10 hours of training each month.

c) Each Fire-fighter must maintain a minimum of 240 hours of training each year.

a) Each volunteer Fire-fighter must maintain a minimum of 120 hours of training each year.

7.0 TRAINING CLASSES

7.1 New Firefighter Drivers Training

1) Scope:

   This policy applies to department in-service driver training. It was promulgated to establish a uniform policy for recording training hours, personnel and instructors.

2) General:

   All in-service training shall be recorded on a Department Training Log.

3) Responsibilities:

   It is the responsibility of the Shift Supervisor or Training officer to oversee and ensure that all new personnel receive a minimum of 44 hours of Drivers/Operators Training prior to these personnel operating this department's emergency vehicle.

4) Objectives:

   All training will be objective based. It will be recorded, including date, credit hours, name of instructor, and an objective number listed from the appropriate Emergency Driver/Operator Course.

5) General Requirements:

a) It is required that all new members shall receive 40 hours of Drivers Training.

These fire-fighters will not be allowed to operate a fire vehicle solo, until all 40 hours of drivers training is completed. Training shall be conducted on an approved driver training course set up according to Force standards. Classes will cover all Vehicle Operation Skills and Driving, Pump Operations, Emergency Equipment Familiarization, and a written test will be administered covering all required DOT equipment, resource information, DOT Hazardous Chemical Handbook, and local and state laws that apply, as outlined in the program.

Members who successfully complete the Emergency Vehicle Operators Course (EVOC) may use those training hours towards the completion of the required initial 40 hours. Additionally, members may use EVOC as a portion of their annual continuing driver's education. However, all new members shall still be required to successfully complete the written and skill sections mentioned in part one above

8.0 TRAINING CLASSES

8.1 Drivers of Vehicles

1) Scope:

This standard applies to all members who drive or operate a motorized vehicle owned or used by the department. It was promulgated to:

a) Establish minimum standards for members who are allowed to drive or operate a motorized vehicle.

b) Establish minimum safety regulations for the operation of a motorized vehicle.

2) General:

a) Driver's license:

i) All members of the department age 21 and over shall have a valid class F driver's license verified by laws and regulation.

ii) All members shall furnish proof of their possession of a valid license anytime that they are requested by a supervisor to do so.

iii) Supervisors shall check the driver's license of each member under their command during their first shift or training in January and July to determine that each member possesses a valid license.

iv) Members shall report any change in the status of their license to their supervisor. The supervisor shall forward this information to the RFO/DFO through the normal chain of command.

v) Any member who has his license suspended shall notify his supervisor immediately and shall not be allowed to drive or operate a vehicle until his license has been restored. Failure to possess a valid driver's license may be cause for termination.

b) No driver shall move a vehicle until all persons in it are in an approved riding position and are properly secured. Mandatory seat belts shall be worn at all times.

c) Drivers responding to emergencies shall comply with the provisions of the

Emergency Response to Call section of this manual.

d) A driver shall not back a vehicle unless his view is clear and unobstructed. Apparatus shall not be backed unless there is at least one spotter to the rear of the apparatus to assist in the operation.

3) Drivers of vehicles shall not drive in turn-out gear or personal protective clothing.

Responsibilities:

a) Drivers shall be directly responsible for the safe and prudent operation of their vehicle in all situations.

b) When a driver is under the direct supervision of an officer, the officer shall be responsible for the actions of the driver.

c) The fire department safety officer(s) shall monitor the status of all the members of the department to ensure that all those who drive and operate vehicles have had the proper training, possess valid driver's licenses, and are insurable.

d) Drivers shall be responsible for ensuring that all of their vehicles' safety equipment is functioning properly and that their vehicles are safe to drive prior to operating them.

4) Accidents:

a) The driver of a motor vehicle shall immediately notify his supervisor and the appropriate law enforcement agency if he is involved in an accident.

b) Any driver involved in an accident shall be tested for substance abuse as soon as possible following the accident, escorted by the Fire Officer or his designee

c) The supervisor shall notify the Fire Officer or his designee whenever an accident involves an injury, a fatality, or any damage to a vehicle

SOP 13: FIREFIGHTER REHABILITATION (REHAB)

PURPOSE: Rehabilitation of personnel at emergency scenes and training exercises. It will ensure that members who might be suffering the effects of metabolic heat buildup, dehydration, physical exertion, and/or extreme weather receive evaluation and rehabilitation during emergency operations or at training sessions.

GUIDELINES:

1. Rehabilitation should commence when fire/emergency operations and/or training exercises pose the risk of members exceeding a safe level of physical or mental endurance.
2. Rehabilitation should be established for large-scale incidents, long duration, extreme temperatures and / or physically demanding incidents.
3. The Incident Commander (IC) may establish rehabilitation setup according to the circumstances of the incident.

The rehabilitation process may include the following;

- Rest and recovery
- Rehydration (fluid replacement)
- Active and/or passive cooling or warming as needed for the incident type and climatic conditions
- Medical monitoring
- EMS treatment in accordance with local protocols
- Relief from extreme climatic conditions (heat, cold, wind, rain)
- Calorie and electrolyte replacement
- Accountability

• Release

ROLES AND RESPONSIBILITIES:

Incident Commander (or their designee) is responsible for considering the following:

1. Include rehabilitation in incident/event size-up.
2. Establishing a rehabilitation group to reduce adverse physical effects on firefighters while operating during fire/emergencies, training exercises, and extreme weather conditions.
3. Designating and assigning a supervisor/officer to manage rehabilitation. The IC should assume the responsibility if not delegated.
4. Ensure enough resources are assigned to rehabilitation if created.
5. Ensure EMS personnel are available for emergency medical care of firefighters as required. BLS should be the minimum level of care; ALS may be needed and is preferred when it is available.

Rehabilitation Officer should be responsible for the following:

1. Don the rehabilitation officer vest.
2. Whenever possible, select a location for rehabilitation with the following site characteristics:
    - Large enough to accommodate the number of personnel expected (including EMS personnel for medical monitoring), with a separate area for members to remove personal protective equipment
    - Accessible for ambulance and EMS personnel should emergency medical care be required
    - Removed from hazardous atmospheres including apparatus exhaust fumes, smoke, and toxins often encountered on the incident scene

- Away from patient treatment/triage areas
- Shade in summer and protection from inclement weather at other times
- Access to a water supply (bottled or running) to provide for hydration and active cooling
- Away from spectators and media

3. Ensure personnel in rehabilitation “dress down” (when appropriate) by removing their bunker coats, helmets, hoods, and opening their bunker pants to promote cooling (prior to entering the rehab area).
4. Make available the suggested resources for rehabilitation including the following:
   - Shelter from the elements (cold, heat, wind, rain, etc.) if needed
   - Potable drinking water for hydration
   - Sports drinks (appropriate electrolyte and caloric replacements) for long duration incidents (working more than one hour)
   - Active cooling where required
   - Medical monitoring equipment (chairs to rest on, blood pressure cuffs, stethoscopes, check sheets, etc.)
   - Food where required and a means to wash or clean hands and face prior to eating
   - Blankets and warm, dry clothing for winter months
   - Bathroom facilities where required
5. Monitor the time personnel are in rehabilitation to ensure they receive at least 10 minutes to 20 minutes of rest.
6. Ensure personnel rehydrate themselves.
7. Ensure personnel are provided with a means to be actively cooled where required.
8. Always maintain accountability and remain within rehabilitation (Individual Rehab Report).

9. Document members entering or leaving rehabilitation.
10. Inform the incident commander, accountability officer (resource status unit), and EMS personnel if a member requires transportation to and treatment at a medical facility.
11. Serve as a liaison with EMS personnel.

Station officers should be responsible for the following:

1. Be familiar with the signs and symptoms of heat stress and cold stress.
2. Monitor the company members for signs of heat stress and cold stress.
3. Notify the IC when stressed members require relief, rotation, or reassignment according to conditions.
4. Provide access to rehabilitation for company members as needed.
5. Ensure that the company is properly checked in with the rehabilitation manager and accountability officer (resource unit), and that the company remains intact.

Crew members should be responsible for the following:

6. Be familiar with the signs and symptoms of heat and cold stress.
7. Maintain awareness of themselves and company members for signs and symptoms of heat stress and cold stress.
8. Promptly inform the company officer when members require rehabilitation and/or relief from assigned duties.
9. Maintain unit integrity.

EMS personnel should be responsible for the following:

1. Report to the IC and obtain the rehabilitation requirements.
2. Coordinate with the rehabilitation manager.

3. Identify the EMS personnel requirements.
4. Check vital signs, monitor for heat/cold stress and signs of medical issues.
5. Document medical monitoring (Individual Rehab Report)
6. Provide emergency medical care and transportation to medical facilities as required.
7. Inform the IC and the rehabilitation manager when personnel require transportation to and treatment at a medical facility.
8. Document emergency medical care provided.

PROCEDURES:

1. All personnel should maintain hydration on an ongoing basis (pre-incident, incident, post-incident).
2. Members may be sent to rehabilitation as required.
3. All members should be sent to rehabilitation following the use of
   - two 30-minute or 45-minute SCBA cylinders
   - one 60-minute SCBA cylinder
   - 45-60 minutes of intense work without SCBA
   - Shorter times might be considered during extreme weather conditions.
4. Active cooling (e.g., wet towels, forearm immersion, misting fans) should be applied

1. where temperatures, conditions, and/or workload create the potential for heat stress.
5. In hot, humid conditions, a minimum of 10 minutes (20 minutes is preferable) of
2. active cooling should be applied following the use of the second and each subsequent
3. SCBA cylinder.

6. Personnel in rehabilitation should rest for at least 10 minutes to 20 minutes prior to being reassigned or released.
7. The following vital signs should be obtained;
    - Heart rate
    - Respiratory rate
    - Blood pressure
    - Pulse-Ox
    - Temperature (if capable)
8. Members exposed to fire smoke should be assessed for CO poisoning.
9. EMS personnel should provide medical monitoring and emergency medical care as per medical protocol.
10. If a member is demonstrating abnormal vital signs, he or she should be monitored
1. frequently during rehabilitation.
11. Personnel who are weak or fatigued with pale clammy skin, low blood pressure, nausea, headache, or dizziness should be assessed by EMS personnel.
12. Personnel may be transported to a medical facility for treatment if they are experiencing
    - chest pain
    - shortness of breath
    - dizziness
    - nausea
    - Altered mental status
    - If after 30 minutes vital signs are above limits
13. Personnel transported to a medical facility for treatment should be accompanied and attended to by a department representative. ***(Notify Incident Commander immediately)***

14. Members should drink water during rehabilitation (12 – 32 oz / 20-minute break). After the first hour, a sports drink containing electrolytes may be provided. ***(Soda and caffeinated and carbonated beverages should be avoided)***
15. Nutritional snacks or meals should be provided as required during longer duration incidents.
16. No tobacco use should be permitted in or near the rehabilitation area.
17. The member should not return to operations if
    a. He or she does not feel adequately rested
    b. If EMS or supervisory staff present see evidence of medical, psychological, or emotional distress
    c. If the member appears otherwise unable to safely perform his or her duties
18. Release from Rehab will be determined by one of the following
    d. Cleared for duty
    e. Sent to a medical facility for more definitive medical evaluation/treatment
19. Where transport or care is provided, a Patient Care Report (PCR) should be generated and a copy placed in the member's employee health record. ***(Notify the Incident Commander Immediately)***
20. For any ongoing event with high potential for injury to public safety personnel consider requesting a physician to the scene.

REHAB INFORMATION FORM

Time entering rehab: _____

Date: _____ Firefighter Name: _____

Age: _____ Gender: _____

Alert and oriented, normal gait, clear speech? Yes □ No □ [physician screen if any found if No]

Skin evaluation: No findings □ List: _____ [physician screen if any found]

Cooling Provided: List type and duration: _____

Time	**HR**	**BP**	**RR**	**Temp (oral)**	**Oral fluid consumed (ml)**	**IV fluids provided (ml)**

NFPA 1582 - 9.4.20.1 Uncontrolled Hypertension

Defined as

- ❒ Systolic Pressure >180 mm Hg
- ❒ Diastolic Pressure >100 mm Hg
- ❒ Hypertension with the presence of target organ damage

Compromises the member's ability to safely perform essential job

Initial Carbon Monoxide Assessment Parameters

0 – 5% Normal

5 – 10% Normal in a Smoker

>10% Abnormal – Consider High Flow Oxygen

>15% Significantly Abnormal – Treatment Mandatory

Initial Carbon Monoxide Reading SpCO% =

Carbon Monoxide Reassessment Parameters

NFPA 1584

Rehabilitation operations shall commence whenever emergency operations or training exercises pose a safety or health risk to members

Members shall undergo rehabilitation following:

- The use of a 2nd 30-minute SCBA
- A single 45-minute SCBA
- A single 60-minute SCBA
- 40 Minutes of intense work without an SCBA

Members entering rehabilitation for the first time shall rest for a minimum of 10 minutes and longer where practical

Members shall rest for a minimum of 20 minutes following:

The use of a 2nd 30-minute SCBA

A single 45-minute SCBA

A single 60-minute SCBA

40 Minutes of intense work without an SCBA

The member shall not return to operations if he/she does not feel adequately rested

❒ Nausea □ Weakness □ Headache □ Sunburned

❒ Cramping □ Seizure □ Flushed Skin □ Exhaustion

❒ Dehydration □ Mental Confusion □ Absence of Sweating

❒ Shortness of Breath □ Rapid Heart Rate

❒ Headache □ Low BP □ Numbness □ Blisters

❒ Dehydration □ Muscle Rigidity □ Mental Confusion

Slow Pupil Response □ Waxy Pale Skin

Rest: □ Yes □ No Minutes:

Hydration: □ Yes □ No

Cooling: □ Yes □ No □ Active □ Passive

Warming: □ Yes □ No

Medical Monitoring: □ Yes □ No

Relief from Climate: □ Yes □ No

Calorie & Electrolyte Replacement: □ Yes □ No

Emergency Medical Care Provided □ Yes □ No

Accountability Documentation Completed: □ Yes □ No

SOP 14: FIRE VOLUNTEERS

1. Introduction

This SOP outlines the procedures and responsibilities for fire volunteers when responding to emergencies. The primary aim is to ensure safety, efficient coordination, and effective fire suppression or rescue efforts.

Fire volunteers play a critical role in the community. By following this SOP, volunteers can ensure effective response, minimize risk, and save lives. Regular training, awareness, and adherence to protocol are essential for the success of firefighting operations.

2. Scope

This SOP applies to all fire volunteers, from the moment they are alerted of an incident to the conclusion of their role in the emergency.

3. Responsibilities

- **Volunteers:**
  - Report promptly to the designated assembly point or fire station upon notification.
  - Adhere to the instructions provided by the Incident Commander or senior fire officers.
  - Ensure personal protective equipment (PPE) is worn correctly before any action.
  - Participate in routine training sessions.
- **Incident Commander:**
  - Assign tasks based on skill level and training.
  - Monitor the situation and adjust strategy accordingly.

- Ensure proper debriefing after the event.

4. Alert Procedure

- Respond immediately when notified of a fire or emergency incident.
- Confirm receipt of the alert through the designated communication channel (radio, phone, app).
- Ensure your PPE is ready, including fire-resistant clothing, helmet, gloves, and boots.

5. Reporting to the Incident

- Arrive at the designated fire station or assembly point within the required time.
- Check in with the supervisor or Incident Commander upon arrival.
- Receive briefing on the incident type, location, and current operational status.

6. Incident Scene Procedures

- **Safety First:** Always prioritize personal and team safety. Do not engage in any action that may endanger yourself or others.
- **Firefighting Operations:**
  - Follow assigned tasks (e.g., hose handling, water supply, rescue operations).
  - Work in teams to ensure accountability.
  - Stay in constant communication via radios or other communication tools.
- **Search and Rescue:** Only enter buildings or hazardous areas with proper training and safety equipment. Never work alone; use the buddy system.

7. Communication Protocol

- Maintain clear, concise communication using designated radio channels.
- Relay information on fire spread, trapped individuals, or other hazards to the Incident Commander immediately.
- Only communicate essential information to reduce radio traffic during the operation.

8. Post-Incident Procedures

- **Debrief:** Participate in the post-incident debrief led by the Incident Commander. Share observations and areas for improvement.
- **Equipment Care:** Clean and store all firefighting equipment, ensuring readiness for the next call-out.
- **Health Check:** Report any injuries or exposure to hazardous materials to medical personnel.

9. Training and Drills

- Regularly participate in scheduled fire drills and emergency response training.
- Stay updated on fire suppression techniques, equipment use, and safety protocols.

10. PPE and Equipment Maintenance

- Ensure all personal gear is in good working order.
- Report any equipment damage immediately for repair or replacement.

11. Conduct and Discipline

- Always uphold the values of teamwork, respect, and discipline.
- Abide by all safety rules and operational guidelines.

- Report any unsafe behavior or concerns to the Incident Commander or safety officer.

12. Emergency Evacuation

- Be familiar with evacuation procedures for all building types.
- Assist in evacuating civilians, prioritizing vulnerable populations like children, the elderly, and the injured.

APPENDECIES

1. Incidence report form

JAMHURI YA MUUNGANO WA TANZANIA

WIZARA YA MAMBO YA NDANI YA NCHI

JESHI LA ZIMAMOTO NA UOKOAJI

MFANO

Simuyamaandishi: "ZIMAMOTO KUU"

SimuNambari: 255-22-2181093

Telefax: 255-22-2184569

BaruaPepe: **fire.rescue@frf.go.tz**

OFISI YA KAMISHNA JENERALI
JESHI LA ZIMAMOTO NA UOKOAJI
S. L. P. 1509,

DODOMA

TAARIFA YA MOTO/MAOKOZI.

1. **Kituo cha Zimamoto** : *Dodoma.* :Wito Na**. 53/2019**
2. **Tarehe ya siku ya wito***:* *13.03.2019*.
3. **Aina ya tukio la moto** : *Moto wa nyumba ya makazi yenye vyumba 6*.
4. **Eneo tukio lilipotokea**. (Kata, Mtaa na Wilaya) : *Kata ya Nzuguni A, Mtaa wa Ipagala, Wilaya ya Dodoma Manispaa*.
5. **Hatua zilizochukuliwa na Jeshi la Zimamoto na Uokoaji**: Jeshi la Zimamoto na Uokoaji Dodoma lilifika eneo la tukio na kuzima moto huo
6. **Chanzo cha tukio**: *Hakijajulikana uchunguzi unafanyika*
7. **Majeruhi au kifo kutokana na tukio**: Majeruhi sita (06), (Taja Jinsia,Umri,Kabila).
8. **Hasara iliyosababishwa na tukio**: Kuungua kwa samani za ndani/kuteketea kwa nyumba yote
9. **Mali iliyookolewa**: vyumba sita kati 10/samani za ndani n.k.
10. **Gharama zilizotumiwa na Jeshi kukabiliana na tukio**: Maji lit na Madawa kiasi gani na mafuta (taja kiasi).

11. **Changamoto zilizojitokeza wakati wa kukabiliana na tukio**: Kuumia wakati wa kazi/Aina ya moto/Miundo mbinu/Hali ya hewa n.k.

2) Daily report form

UNITED REPUBLIC OF TANZANIA
MINISTRY OF HOME AFFAIRS
FIRE AND RESCUE FORCE

DAILY OPERATIONS REPORT FORM
REGION: ……

1. FIRE /RESCUE TENDERS

S/N	Vehicle Description	Reg No	Station	Water Tank Capacity	Foam Capacity	Status	Remarks

2. FIRE /RESCUE INCIDENTS

S/N	Incident	Time	Location	Description	Injury	death	Remarks

3. EXTINGUISHING AGENTS

S/N	Extinguish Media	Quantity	Store	Fire Engine	Used	Requirement	Remarks
	Foam Concentrate(litres)						

	Dry Powder (Kilogram)						
	Water (Litres)						

4. FIRE HYDRANTS

TOTAL NUMBER OF FH	Status		Test		Remarks
	Operational	Un Operational	Flow (Litres/min)	Pressure (Bar)	

5. STATION TRAINING AND DRILLS

Lesson/Drill	Starting time	Finishing Time	Station	Remarks

6. PHYSICAL FITNESS EXERCISE

Physical Fitness Exercise	Starting time	Finishing Time	Station	Remarks

Approved by**: …….** Signature…….

Date……..

3) Equipment report form

UNITED REPUBLIC OF TANZANIA
MINISTRY OF HOME AFFAIRS
FIRE AND RESCUE FORCE

Region:…….. Date:……

Equipment Inspection and Preventive Records

No.	Equipment	Quantity	Status	Requirement	Remarks
1.	B. A cylinder				
2.	Face Mask /back plate				
3.	Scuba				
4.	Helmet				
5.	Diving Helmets				
6.	Approach Suits				
7.	Aluminized Suits				
8.	Chemical Suits				
9.	Diving Suits				
10.	Hand Control Branch				
11.	Foam Branch				
12.	Hose Ramp				
13.	Stand Pipe, Key and Bar				
14.	Rescue Line				
15.	Fire Beater				
16.	Hose Bandage				
17.	Air Lifting Bag				
18.	High Pressure Air Pipe				
19.	Pneumatic Control Panel				
20.	Pressure Gauge/Reducer				
21.	Gloves Pair				
22.	Fixed Radio Call				
23.	Branch Control				
24.	Metal Suction Strainer				
25.	Bucket Suction Strainer				
26.	Suction Spanner (Wrench)				
27.	Collecting Head				
28.	Dividing Breech				
29.	Hose Adaptor				
30.	Delivery Hoses				
31.	Hose Reel				
32.	Suction Hoses				

No.	Equipment	Quantity	Status	Requirement	Remarks
33.	Extension Ladder				
34.	Roof ladder				
35.	Ceiling hook				
36.	Forcible entry				
37.	Portable Generator				
38.	Searching Light				
39.	Tripod Stand				
40.	Electric Cable Drum				
41.	Blower Machine				
42.	Hydraulic Machine/Generator				
43.	Hydraulic Pressure Hose				
44.	Hydraulic Power Cutter				
45.	Expander/Spreader				
46.	Chain Saw				
47.	Hack Saw				
48.	Fireman Axe				
49.	Sledge Hammer				
50.	Sledge Axe				
51.	Sward Axe				
52.	Crowbar				
53.	Glass Breaker				
54.	Bolt Cutter/Bolt Clipper				
55.	Stopper				
56.	Digging Spade				
57.	Shovel				
58.	Rescue Belt/Safety Belt				
59.	Full Body Harness				
60.	Life Jackets				
61.	Life Vest				
62.	Rescue Net				
63.	Fins				
64.	Basket Stretcher				
65.	Spine Board Stretcher				
66.	Fold Stretcher				
67.	First Aid kit				
68.	Foam Inductor				
69.	Light Portable Pump				
70.	Pick Up Tube				
71.	Carabineer				
72.	Foam Concentrate Drum				
73.	DSPA - Extinguisher				
74.	Portable Fire Extinguisher (water, Foam, Powder & Carbon Dioxide)				
75.	Wood Boat				

Approved by: …… Signature:……..
Date:……..

5. Rescue report form

THE UNITED REPUBLIC OF TANZANIA
MINISTRY OF HOME AFFAIRS
FIRE AND RESCUE FORCE

Telegrams: "NATIONAL FIRE"
Telephone: 255-22-2184580
Telefax: 255-22-2184569
Email: fire_rescue.moha.go.tz

OFISI YA KAMISHNA JENERALI
JESHI LA ZIMAMOTO NA UOKOAJI
S. L. P. 1509,
DODOMA.

FOMU YA TAARIFA YA TUKIO LA UOKOAJI

Tukio Namba. _____ **TAREHE:** _____

Anuani ya tukio ……...

No.	MAELEZO	MAONI
1.	Aina Ya Tukio	
2.	Jina Kamili La Mtoa Taarifa	
3.	Njia Iliyotumika Kutoa / Kuleta Taarifa	
4.	Tarehe Ya Taarifa Ya Tukio	
5.	Muda Wa Taarifa Ya Tukio	
6.	Muda Wa Gari Kuondoka Kituoni	
7.	Jina Kamili La Afisa Wa Zamu	
8.	Aina Ya Gari Lililotumika Kwenda Kwenye Tukio (Rescue Tender, Fire Engine, Mobile Pumper Or Other)	
9.	Muda Wa Kufika Kwenye Tukio	
10.	Muda Wa Kuanza kazi	
11.	Anuwani Ya Kwenye Tukio (Mkoa, Wilaya, Kata, Mtaa Na Eneo)	
12.	Hatua Zilizochukuliwa Na Jeshi La Zimamoto Na Uokoaji Baada Ya Kufika Eneo La Tukio	
13.	Madhara Yaliyojitokeza Kwa Binadamu Na Viumbe Hai Kenye Tukio Husika	
14.	Athari / Hasara Iliyojitokeza Katika Tukio, (Mfano Mali, Vitu….)	

15.	Aina Chombo, Vyombo Vilivyohusika Katika Tukio Ama Ajali Husika, (Mano Gari, Ndege, Pikipiki, Baiskeli, Meli, Boti, mkokoteni…..)	
16.	Jina Kamili Na Namba Ya Chombo / Vyombo Vilivyohusika Katika Tukio Husika	
17.	Jina Kamili La Mmiliki / Kampuni Ya Chombo Kilichopata Au Kusababisha Ajali	
18.	Jina Kamili, Umri, Kabila La Majeruhi	
19.	Jina Kamili, Umri, Kabila La Waliofariki Katika Tukio Hilo	
20.	Idadi Ya Waathirika Na Jinsia	
21.	Chanzo Cha Tukio	
22.	Vikosi Vilivyoshiriki	
23.	Jina La Afisa /Polisi, Tanesco Na Wenginewo Na Namba Za Mawasiliano	
24.	Muda Wa Kumaliza Kazi	
25.	Muda Wa Kuondoka Eneo La Tukio	

Cheo na jina la Afisa wa zamu……

Saini ya Afisa wa zamu……..

Commissioner General, Fire and Rescue Force
P.O.BOX 1509, 1 Zimamoto Street, 41102 VIWANDANI, DODOMA Tel: 255-26-23200243 Fax: 255-26-23200243
Email: fire.rescue@zimamoto.go.tz Website: www.zimamoto.go.tz