THE UNITED REPUBLIC OF TANZANIA

MINISTRY OF HOME AFFAIRS

FIRE AND RESCUE FORCE

STANDARD OPERATING PROCEDURE MANUAL

Second Edition

VOLUME V
SCENE CONTROL

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SOP 1. INCIDENT COMMAND

1.0 Introduction

Incident Command is the process by which we Manage Risk on the Incident Ground, in order to safely and effectively achieve specific operational objectives within critical timescales.

These may be:

- Carrying out rescues and extinguishing fire
- Rendering emergency services as appropriate to the firefighter's and rescuer role.

The command framework must be flexible enough to be adapted to incidents of any size and be based upon one essential element that every unit on the incident area, an individual, a crew or a sector has a single person who is responsible for the effective management of that unit.

The principal consideration of the Incident Commander is the safety of all personnel. This must be established by assessing the hazards that are present and the possible risks to the health and safety of those at the scene and the adopting appropriate, safe systems of work. Health, safety and welfare of all personnel must remain paramount throughout an incident at all times. Therefore, all personnel on the incident ground are responsible for the health, safety and welfare of both themselves and others.

The impact of health & safety on command and control of an Incident.
One of the immediate considerations for the Incident Commander at a fire and rescue must be:

- The safety of personnel on the incident ground. Therefore, a Dynamic Risk Assessment (DRA) must be carried out to identify the potential hazards to health and safety at the scene.
- As an incident develops different hazards may become apparent, therefore the DRA must be a continual process involving the review of the potential or identified hazards.

- Following a DRA, the Incident Commander (IC) may decide that they can personally monitor safety on the incident ground.
- Alternatively, the IC may feel that it is necessary to have support from other operational support officers to assist in the supervision of the safety of personnel. These persons must be fully briefed in terms of the role, the area of responsibility.
- A balance must always be maintained between the safety of personnel and the operational commitment. The Incident Commander must take a reasonable and practical approach.

1. Principles of Risk Assessment

All operational personnel should be trained in hazard identification and risk assessment. The training will assist the Incident Commander develop his tactical approach to the incident.

- **Hazard** – something, which has the potential to cause harm.
- **Risk** – the likelihood of harm arising from the hazard.

The Officer-in-Charge will carry out a dynamic risk assessment on arrival at an incident, the result of which will determine the

five key steps on conducting assessments

1. Identify the fire hazards.
2. Identify people at risk.
3. Evaluate, remove or reduce the risks.
4. Record your findings, prepare an emergency plan and provide training.
5. Review and update the fire risk assessment regularly.

1.2. ***Tactical Mode*** to be employed.

The principal elements of that assessment are termed "the operational risk assessment process" and include the following areas:

- To look for and identify hazards (hazard spotting)
- To decide who might be harmed and how
- To evaluate the **risks** arising from the **incident**
- To decide what precautions are necessary

1.3 Hazard Evaluation.

When carrying out hazard identification, the Incident Commander may consider the following examples:

- Slips and trips (uneven fire ground)
- Fire (high temperature/burns/building decay)
- Working at a height (roof work/scaffolding)
- Manual handling (equipment/casualty handling)
- Environmental considerations such as extremely high ambient temperatures. Once the hazards have been identified, consideration must be given to who might be affected by those hazards. Who will be exposed to the hazards identified:
- Operational Firefighters
- Other Emergency Services
- Works Staff

Having identified the hazards and the people who may be affected, the Incident Commander must evaluate the degree of risk as to whether those persons will come to any harm.

1.3 Evaluate the risk:

This task is a personal judgment of the Incident Commander who must consider certain questions when assessing the severity of the hazard and the likelihood of occurrence.

- What operational intelligence is available? e.g. plans, on scene specialists
- What tasks need to be carried out?
- What additional hazards are associated with carrying out these tasks? • What resources are available? The Incident Commander having carried out the assessment must now consider the methods of controlling the risk. *See appendix 2 – Decision Making Model.*

2. Risk Control:

The Incident Commander may consider one or more of the following control methods:

- Remove the hazard

- Reduce the risk
- Prevent access to the hazard
- Reduce exposure to the hazard
- Reduce the number of personnel exposed to the hazard
- Issue personal protection equipment
- Additional resources required

3. Dynamic Risk Assessment

The term Dynamic Risk Assessment (DRA) is commonly used to:

- Describe a process of risk assessment being carried out in a changing environment, where what is being assessed is developing
- This is further complicated for the OIC in that, often, rescues have to be performed, exposures protected and stop jets (water) placed before a complete appreciation of all material facts has been obtained.
- By passing the tactical mode to Fire and Rescue operation, Operations Room (Control) will document the actions taken of the initial assessment.
- A tactical plan will have been initiated on the basis of a Dynamic Risk assessment.
- Using professional judgment, the Incident Commander will have decided on a Tactical Mode from the information immediately available to him.

Although the dynamic management of risk is continuous throughout the incident, the focus of operational activity will change as the incident evolves. It is therefore useful to consider the process during three separate stages of an incident:

- The Initial Stage
- The Development Stage
- The Closing Stage

3.1 Initial Stage of an Incident

There are 6 steps to the initial assessment of risk:

- Evaluate the situation, tasks and persons at risk
- Introduce and announce tactical mode

- Select safe systems of work
- Assess the chosen systems of work
- Introduce additional control measures if required
- Re-assess systems of work and additional control measures

1.2 Step 1 Evaluate the situation, tasks and persons at risk

On the arrival at an incident the OIC must gather information, evaluate the situation and then apply professional judgment to decide the most appropriate course of action.

- Hazards must be identified and the associated risks to firefighters, the public and the environment considered. In order to identify hazards, the OIC will initially need to consider:
- Operational intelligence information available
- The nature of the tasks to be carried out
- The hazards involved in carrying out the tasks
- The risks involved to: firefighters, other emergency service personnel, the public and the environment
- The resources that are available e.g. experienced personnel, appliances and specialist advice.

2.3. Step 2 Tactical Modes

The 'Tactical Mode' procedure provides a simple method whereby the **Incident Commander**, having carried out an initial assessment of the incident and having decided whether or not it is safe to commit personnel into the hazard area can announce his decision to all personnel on the incident ground, as well as those en-route and; at the same time ensure that a record is maintained of the outcome of the risk assessment. The term 'Tactical Mode' describes the method of operation proposed or in use at the incident, there are two possible **'Tactical Modes'**.

3.3.1 Offensive Mode may apply to a sector, and/or the entire incident. This is where the operation is being tackled aggressively. The incident commander will have established that the potential benefits outweighs the identified risks, so the Incident Commander will be committing crews into a relatively hazardous area, supported by

appropriate procedures and training. ‘Offensive Mode’ is the normal mode of operation used at for example: to fight the fire aggressively, to carryout rescues; to close down machinery. This will often mean committing crews into the building.

3.3.2 Defensive Mode, this mode may apply to a sector, and/or the entire incident. This is where the operation is being fought with a defensive approach. In defensive mode, the identified risks outweigh the potential benefits, so no matter how many additional control measures are put into place the risks are too great. In these circumstances the Incident Commander would announce Defensive Mode, fight the fire with ground monitor jets and aerial jets, and protect exposure risks and adjoining property without committing crews into hazard area. The **offensive** or **defensive** mode should be emphasized to Fire and Rescue operation Operations Room (Control).

3.3.4. Adopting a Tactical Mode When Sectors in Use

When the incident has been divided into sectors the Incident Commander will retain responsibility for the Tactical Mode at all times. There will be occasions when sector commanders wish to change the Tactical Mode in their sector from Offensive to Defensive quickly. For example; they may detect signs of collapse or obtain information about some previously unknown danger. In such circumstances, they must take the necessary action for the safety of the crews and advise the Incident Commander of the developments.

However, if, the Sector Commander wishes to commit personnel internally in Offensive Mode when the prevailing mode is Defensive, the permission of the Incident Commander must be sought and no change made until it is granted. Sector Commanders must be involved in any intervention by the Incident Commander to change the Tactical Mode. Sector Commanders may then implement the change effectively and ensure that personnel under there command are aware of the prevailing Tactical Mode. However, it is more usual for the initiative to change mode to come from the Sector Commander.

3.3.5. Tactical Mode summary:

- Situation, what am I faced with?
- Tactics, what is my plan?

- Assistance, what do I need?
- Needs, safety needs for crew
- Deploy and Supervise
- Review, is my plan working?
- Update, as situation changes
- Never, commit crews without risk assessment

3.3.5. Step 3 Select safe systems of work

The Incident Commander must consider the options available in terms of standard operating procedures. He will need to consider the possible systems of work and choose the most appropriate for the situation. The starting point for consideration must be procedures that have been agreed in preplanning, training and ensuring those personnel available at the incident have sufficient competence to carry out the tasks safely.

If **YES** proceed with the tasks after ensuring that:

- Goals, both individual and team are understood
- Responsibilities have been clearly allocated
- Safety measures and procedures are understood

Step 5 Introduce additional control measure

Incident Commanders' will need to eliminate, or reduce, any remaining risks to an acceptable level, if possible, by introducing additional control measures, such as:

- Use of specialist equipment
- Use of Safety Officer(s)/ Sector Commander
- Use of additional Personnel Protective Equipment other than full fire kit e.g. BA.

3.3.6. Step 6 Re-assess systems of work and additional control measures

Even when safe systems of work are in place, there may well be residual risks. Where these risks remain, the Incident Commander should consider if the benefit gained from carrying out the tasks against the possible consequences if the risks are realized:

- If the benefits outweigh the risks proceed with the tasks.
- If the risks outweigh the benefit do NOT proceed with the tasks, but consider viable alternatives.
- If the Tactical Mode has changed inform all personnel at the Incident.

4.0 Development Stage of an Incident

If an incident develops to the extent that sectors are designated, the Incident Commander will delegate responsibilities to Support Staff. They will be responsible for the health and safety of all personnel within their sector/area.

As the incident develops changing circumstances may make the original course of action inappropriate, for example:

- Firefighting tactics may change from defensive to offensive.
- New hazards and their associated risks may arise e.g. the effects of fire on a building Stability.
- The Calling of Support services and special Equipment
- Existing hazards may present different risks, fire spread to storage area containing gas cylinders.
- Personnel may become fatigued.

Both Incident and Support Staff, therefore, need to manage safety by constantly monitoring the situation and reviewing the effectiveness of existing control measures.

4.1 Incident Objectives

At any incident, as part of his/her evaluation the Incident Commander's initial plan must consider the following:

- Saving and protecting those in danger
- Ensuring the safety of emergency personnel
- Protecting property
- Protecting the environment.

5.0 Command Principles

In order to successfully achieve these objectives, the Incident Commander must apply the following Key Elements of Incident Command at all incidents:

- Only one Incident Commander
- Management of operational plan
- Is there enough manpower and equipment to achieve the task?
- Establishing and Maintaining safe zones
- Briefing and Informing personnel about their duties and responsibilities
- Managing personnel
- Establishing effective communications and spans of control
- Liaison with other agencies and the public

6.0 The Incident Commander

The Incident Commander will under normal circumstances be the person in charge of the first attending appliance. However, a more senior officer may be mobilized to larger or more complex issues.

A formal handing over of authority will be undertaken with the more senior rank saying," I am taking Charge".

A senior ranking officer may decide not to take overall command at incidents which are being managed well, but instead perform as part of the Incident Management Team, as a safety Officer or as an Observer.

If a senior ranking officer does assume command then the person in charge of the first attendance will become part of the Incident Management Team. During the handover information must be handed over swiftly, but it should be relevant and contain:

- Objectives achieved and outstanding to solve the incident
- Tactical mode in use
- Hazards identified and outline of Risk Assessment
- Existing and Proposed Deployment
- Resources Available or Requested
- Sent Messages

7.0 Cordons

When considering control of the incident ground, the Incident Commander will need to maintain the safety of emergency crews and members of the public. Cordons may be employed as an effective method of controlling resources and maintaining safety. Under normal circumstances there will be at least two cordons in operation, inner and outer.

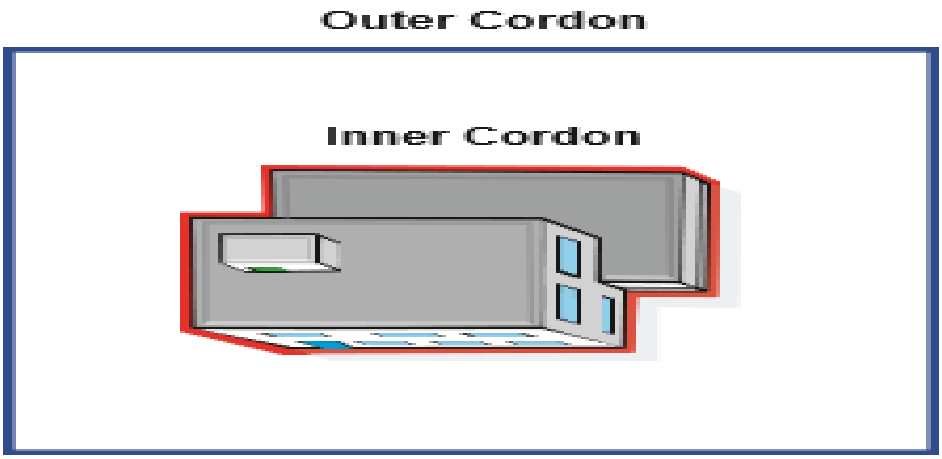
8.0 Inner cordons

Are used to control access to the immediate scene of operations. Access to the area controlled by an inner cordon, which by definition is a high hazard zone, should be restricted to the minimum numbers required for work to be undertaken safely and effectively. Personnel should only enter when they have received a full briefing and allocated specific tasks.

Access to the inner cordon area must be managed at all times and personnel will only be permitted to enter the inner cordon area when wearing the appropriate PPE.

At larger multi-agency incidents management of the inner cordon area remains the responsibility of the fire service.

7.2 Outer Cordons prevent access by the public into an area used by the scene, and other services, for support activities. The police will control outer cordons.



8.0 Briefing

Effective communication and information sharing is imperative for ensuring satisfactory management, and operation of an incident.

An Incident Commander will as far as practically possible inform Sector Commanders and firefighters of the nature of any hazard or significant features, the extent of severity of hazards and degree of associated risk, known or suspected casualty locations, current tactics or changes to the tactical plan and any other factors which might have a significant influence on the safety or efficiency of operations. All relevant information must be transmitted to Fire and Rescue operation Control as soon as possible, to ensure officers en route to the incident are kept fully briefed of developments.

Limit direct lines of communication to operation room in early stages of incident to prevent the possibility of 'Information Overload' and ensure more effective control, the Incident Command System is based on a framework which ensures manageable **'Spans of Control'**.

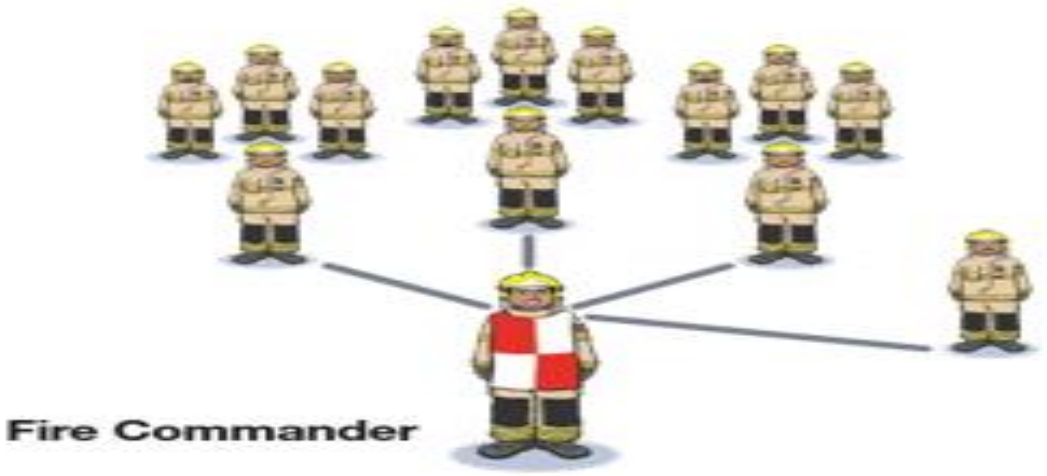
This provides the Incident Commander with the means to find a way through the complexity of the emergency situation and assists with the development of an effective and appropriate Incident ground structure. The concept of 'span of control' is fundamental to this basic structure.

Definition: ***The Span of Control*** is the number of lines of relatively constant communication that must be maintained. In this diagram shown above an Incident

Commander is responsible for three working crews at an incident and has detailed a firefighter to carry out a specific task, which involves regular contact.

No individual should be responsible for so many aspects of the incident that it is difficult or impossible to give sufficient attention to each. The system seeks to ensure that an appropriate ‘Span of Control’ is exercised at all times by the requirement for additional officers to be introduced into the chain of command when the demand on any individual's attention becomes excessive.

In a rapidly developing or complex incident the span of control may need to be as small as 2-3 lines. In a stable situation, 6-7 lines may be acceptable.



9.0 The Command Team and Structure

The command Team will be led by the Incident Commander and will be split into operations and support. Operations is the application of the command and control procedures and tactics to resolve the incident; the Support function provides the logistical needs to ensure the resource requirements of the incident are met i.e. water supplies, equipment, welfare, personnel, incident ground communications.

The Command team will consist of **The Command Team which** will comprise of one or more of the following:

Incident Commander	Operations Commander	Command Support	Sector Officer

9.1. Incident Commander

Ultimately responsible for the overall management of the incident and will focus on command and control, deployment of resources, tactical planning and health and safety.

9.2. Operations Commander(s)

Appointed at larger incidents to assist the Incident Commander. Primarily responsible for tactical co-ordination of operational sectors and safety. Must not become directly involved in support activities which are the prerogative of command support.

9.3. Sector Commanders - Appointed to control a physical area of the incident ground or an area of support, for example water supplies or breathing apparatus. Sector Commanders will assume command of their sector (generally adopting the sector designation as their fire ground radio call sign) and are predominantly responsible within their designated sector for dynamic risk assessment, operational or functional tasks (as appropriate) and safety.

9.4. Command Support Officer -

Responsible for onsite logistical support and co-ordination of support sectors. Reports directly to the Incident Commander. Must not become directly involved in operational activities which are the prerogative of the Operations commander (where appointed) or the Incident Commander.

9.5. At small to medium size incidents, the Incident Commander should nominate a junior officer or firefighter as Command Support, who will operate from the designated contact point.

9.6. Command support should initially provide, and maintain, radio communications between defense control and the Incident Commander and may also be allocated the following responsibilities;

- To act as first contact point for all attending appliances and officers and to maintain a physical record of resources in attendance at the incident.
- To assist the incident commander in liaison with other agencies.
- To direct attending appliances to an operational location or marshalling area as instructed by the Incident Commander and to record the status of all resources.

9.7 The Role of Safety Officer

A Safety officer may be designated at any time during an Incident by either the Incident Commander or sector commander, as appropriate. This person should be suitably qualified and of appropriate experience as the role will require a constant review of the overall Health & Safety in and around the incident, in addition the Safety Officer for the incident, may be responsible for the following:

- To survey operational sectors, identifying hazards, and advising the sector commander as appropriate.
- To liaise with other Sector Safety Officer to support and exchange information.
- To confirm the validity of the initial risk assessment and report back to the incident commander.
- To collate and record any analytical Risk Assessment.
- To act as an extra set of Eyes and ears to the sector commanders in monitoring the safety of personnel.

10.0 First or Initial Tactical Operations

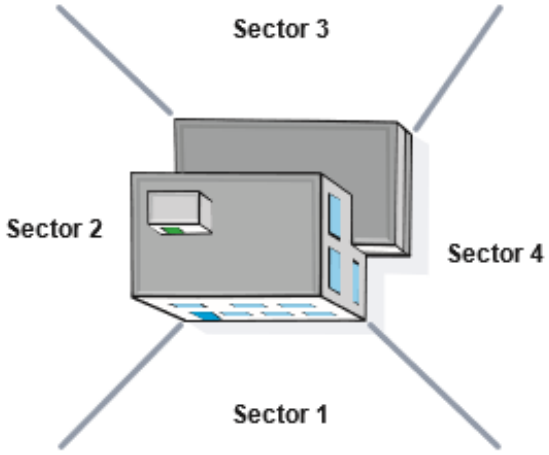
10.1 Sectorization

Sectorization is central to the principle of limiting spans of control and provides everyone on the Incident ground with a clear line of reporting. Sectorization should be introduced

when the demands of an incident make it imperative that responsibility and authority is delegated in order to ensure appropriate command and safety monitoring of all activities.

Even if it is possible for the Incident Commander to oversee all operations, the need to sectorize will arise if there is so much going on that the Incident Commander risks being distracted and unable to give sufficient attention to each task. This would indicate the Incident Commanders span of control is too great. If an Incident Commander's span of control is greater than about 5 lines of direct communication at a working incident, it is possible that performance will be adversely affected.

The creation of sectors will only be done where deemed necessary by and on the express instructions of the Incident Commander. The method of operational sectorization can vary provided the method used is consistent and clearly understood by all personnel. A standard incident should be **sectorized** by exposures by numbering in a clockwise k direction from the main entrance (or initial attack point).



The creation of sectors will only be done where deemed necessary by and on the k express instructions of the Incident Commander. The method of operational sectorization can vary provided the method used is consistent and clearly understood by all personnel.

A standard incident should be sectorized by exposures by numbering in a clockwise k direction from the main entrance (or initial attack point).

- Sector Commanders should physically stay in their sector.

- Sector Commanders provide direct and visible leadership at each sector and need to remain directly accessible to the Crew Commanders for whom they are responsible.
- Deviations from proper procedure would include Sector Commanders visiting the K
- Command unit, or touring the incident to supervise operations in another sector whilst neglecting their own. In cases where it is essential that a crew or k
- Sector Commanders should therefore have no hesitation in halting work in order to maintain safety at this stage of an incident.

11.2 Incident Debrief

Following an incident any significant information gained, or lessons learned, must be fed back to Fire and Rescue Force operation required, for example:

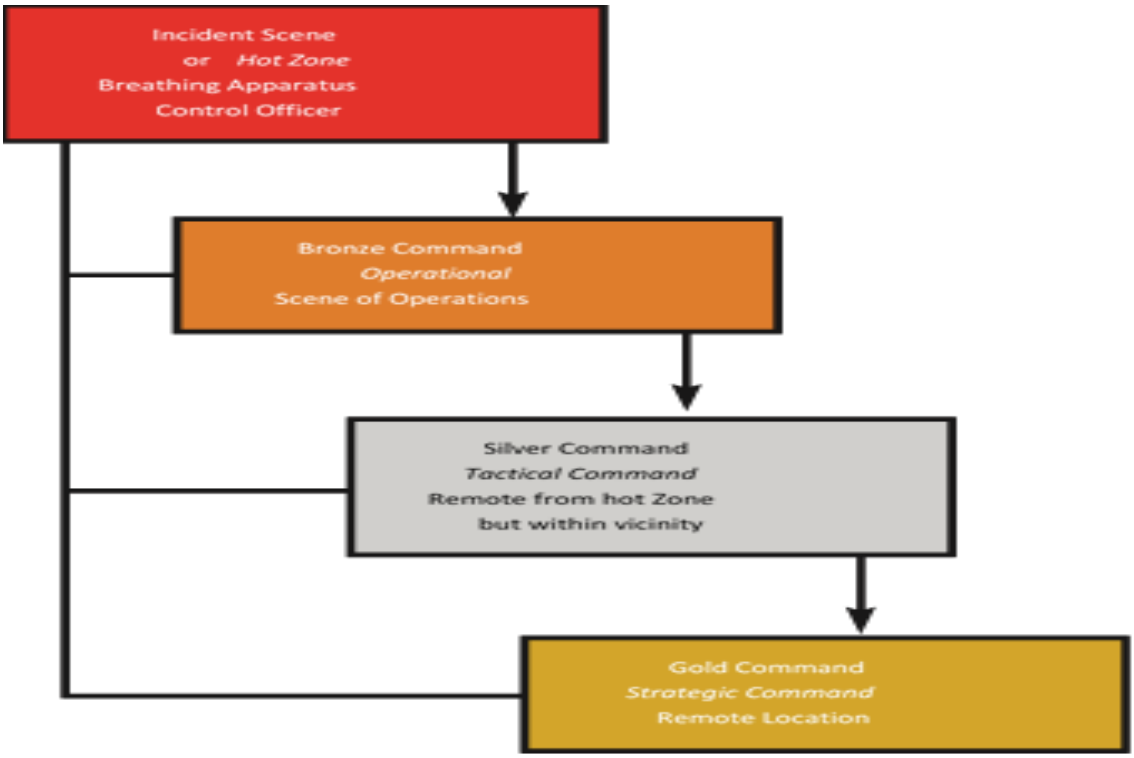
- Relating to existing operational risk
- information, personal protective equipment,
- The provision and use of equipment, systems of work, instruction, training, and levels of safety supervision etc.
- It is important to highlight any unconventional system or procedure used which was successful or made the working environment safe.

12.0 The Multi-Agency Incident Command System

12.1 Operating Within 'The Multi-Agency' Bronze, Silver and Gold Command System.

Effective Command Planning.

Bronze/Operations can best be described as tasks that are carried out on the incident ground, using prescribed techniques and procedures in accordance with the tactical plan. These tasks are generally based on standard fire operation operating procedures and techniques, managed on a routine basis by sector commanders.



Bronze level command will be the first level in operation. The role of the Incident Commander will be to:

- Assess the incident, hazards risks and resources required
- Priorities objectives
- Develop and initiate plans based on dynamic risk assessment and operational procedures
- Communicate and explain the plan
- Evaluate the plans effectiveness
- Coordinate with other support agencies in fire sector

If the incident becomes multi-agency and other services are operating their command system at a similar level then the FRF Incident Commander, at that time, would assume the role of "Fire Silver" at the scene or Incident. This function would be performed by a senior ranking officer.

Sector Commanders Inspector or Assistant Inspector would then become fire bronze until relieved by more senior officer. Silver/ Tactics can be summarized as the deployment of

personnel and equipment on the incident ground in a manner which will achieve the strategic aims of the Incident Commander.

Tactics are almost invariably based on established operational procedures. The role of the Silver Commander is to manage the incident and ensure there are sufficient resources to execute his tactical plan of operation. When taking over an incident the Silver

Commander must formally state" I am taking over" He must ensure

- Sectors know who is in charge
- Inform FRF Control who is in charge and tactical mode
- Establish a command team
- Review action plan
- Ensure there are resources, or request more
- Review the efficiency of the command structure
- Evaluate the tactical plan against all available information
- Carry out risk against benefits analysis.
- Maintain effective liaison with other agencies and Gold Command, if being utilized

13.0 Gold/Strategic is the planning and directing of the organization to meet its overall objectives. The strategic/gold level of responsibility includes the formulation of systems to manage risks of certain incident types, in seeking to achieve these objectives a higher level of Management would be established.

Most incidents can be managed by either silver or bronze levels of command; however, if the level of decision maker or authority exceeds what could be reasonably expected by a Tactical commander, then a gold strategic level will need to be initiated. Gold is the most senior of levels and will rarely be used by the FRF Fire section alone.

It is likely to be initiated for a multi-agency approach to a major incident. It may involve political decisions which one organization cannot resolve alone.

An effective gold command will:

- Be located in a dedicated facility remote from the incident.
- Establish an incident management framework.
- Establish a policy in which Silver Commanders will work.
- Determine and review strategic objectives.
- Prioritize Silver Commanders requests.
- Ensure there is long time resourcing and expertise available.
- Co-ordinate objectives with other agency Gold Commanders.
- Plan for future recovery from the effects of the incident.

Standard Operating Procedure: *Gold Command*

FRF Officers nominated for Strategic Gold Command.

- The Commissioner General of FRF Heads and 'Strategic' of the FRF Mainland

The term 'Strategic' refers to the person in overall executive command of each agency.

- Fire, Police, health including Ambulance services etc. with the responsibility for formulating the Strategy for the Incident Response.
- Each strategic commander (referred to as GOLD) has overall command of the resources of their own Organization, but then delegates 'tactical' decisions to their respective tactical commanders, known as 'Silver'.
- Strategic command has key role in strategic monitoring of the response to an incident.

Standard Operating Procedure: *Silver Command*

- FRF Command and Control Structure.

- FRF Officers nominated for Tactical Silver Command.
- Operational Superintendent and Senior

The term 'Tactical' refers to those who will take charge and be responsible for formulating the tactical plan to be adopted by their service to achieve the strategic direction. Tactical Command should oversee, but not be directly involved in, providing any operational response (referred to as Bronze Command) in the incidents.

Standard Operating Procedure: B*ronze Command*

- FRF Command and Control Structure.
- FRF Officers and staff nominated for Operational Bronze Command.
- Officer in Charge (OIC) of crews and stations and tactically qualified Operational Majors

The term 'Operational' refers to those who will provide the main operational response in an incident that is to be closest to the scene, and control the resources of their respective service within a specific area of the incident.

Decision Making Process – Bronze Command

1. **Situation**
    - What is the Incident?
    - What is the urgency?
    - What information do I have and need?
    - How can I make it Safer?
2. **Tactics**
    - What is my Plan?
    - Where do I place resources?
    - What are the Priorities?
    - What mode am I in?
3. **Assistance**
    - What additional Appliances and Resources do I need?
    - What safety measures do I have in Place?
    - Can I reduce Risk, and How?
4. **Needs:** Identify and Detail Safety needs for Fireground
5. **Deploy & Supervise:** Deploy teams, supervise by direct Communications or Sector Commanders
6. **Review:** Is my Plan Working

7. **Update:** Update plan as circumstances and the situation changes
8. **Never:** Commit Teams without Dynamic Risk Assessment

Decision Making Process

1) Silver Command brief from Incident Commander

- Description of Incident
- Life Risk
- Hazards
- Control Measures
- Actions Taken
- Services Isolated
- Resources in Attendance
- Additional Resources Requested
- Other Agencies in Attendance
- Location of Resources
- Sectorization of Incident
- Operational Mode
- Last Message Sent to Control Room

Officer taking over Command

- State “I am Taking Over
- Confirm Sectors, know who is in Charge
- Inform control of Change in Command and Operational Mode
- Establish Command Team
- Review Plan
- Request more Resources if Required.
- Ensure Effective Communications
- Review Command Structure
- Evaluate Tactical Plan
- Carry out Risk Vs. Benefits Analysis
- Ensure Welfare is Considered
- Maintain Inter Agency Liaison

- Consider Points for Debrief

While in Command

- Assess the Extent of the Incident
- Priorities Objectives
- Develop and Implement Plan
- Communicate and Control the Plan
- Evaluate the Effectiveness of the Plan
- Continue with Dynamic Risk Assessment

Decision Making Process

2) *Gold Command brief from silver commander*
    - Description of Incident
    - Life Risk
    - Hazards
    - Control Measures
    - Actions Taken
    - Resources in Attendance
    - Additional Resources requested
    - Other Agencies in Attendance
    - Location of Resources
    - Sectorization of Incident

While in Charge of Gold Command

- Announce Strategic Aims and Review Effectiveness
- Set Tactical Parameters for Silver Commander
- Priorities Demands of Silver Commander(s) and Allocate Recourses Accordingly
- Formulate and Implement Media Handling and Communication with the Public
- Direct Planning and Operations Beyond the Immediate Response in Order to Facilitate Recovery

- Direct and Advise Silver Command
- Liaise with Partner Agencies
- Establish a Framework for the Overall Management of the incidence.
- Ensure there is Long Time Resourcing and Expertise Available Plan for Future
- Recovery from the Effects of the Incident and Return to a State of 'Normality'

Decision Making Process – Generic

What Is the Issue?

- Identify the task
- Identify the Originator of the task
- What information is available
- Where has it come from

Consider the Options

- What resources are available
- What are the options
- Assess the risk of options
- Consider the lawfulness, necessity and proportionality of the options
- Consider the advantages and disadvantages of the options
- Eliminate the least reasonable option(s)

Make the Decision

- Select the most reasonable option
- Plan the Solution

SOP 2. DYNAMIC RISK ASSESSMENT

1.0 Introduction

This instruction is designed to give Officers guidance on dynamic risk assessment, this is the continuous process of identifying hazards, assessing risk, taking action to eliminate or reduce the risk, monitoring and reviewing, in the rapidly changing circumstances of an operational incident. The key word in defining the process of dynamic risk assessment is ‘continuous’. Dynamic risk assessment comes into operation at an emergency or other situation, where an Incident Commander has to devise and adapt a plan of action based on what he/she assesses is happening at and during this situation.

2.0 Incident Dynamic Risk Assessment

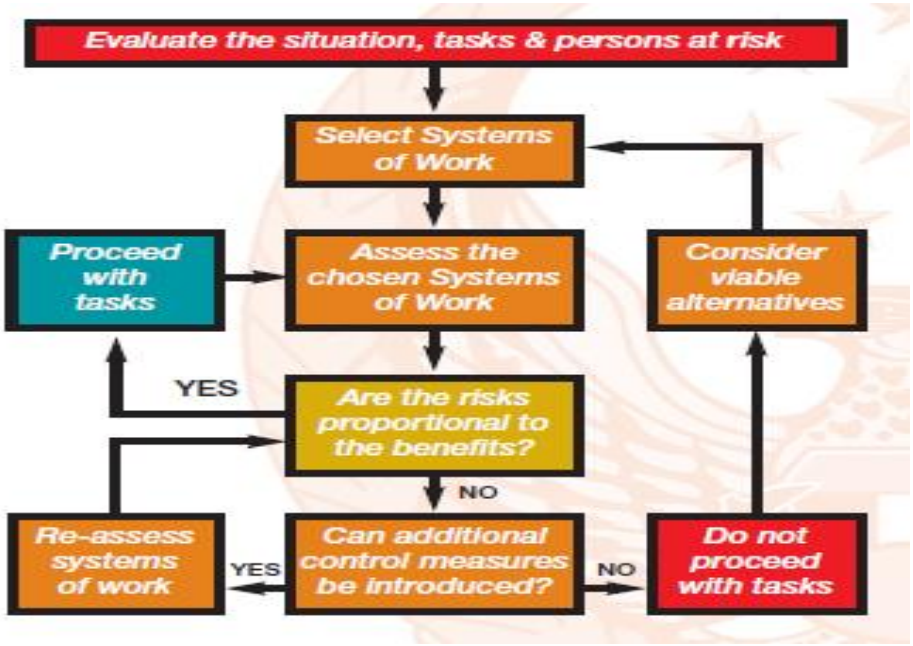
At operational incidents personnel can be operating in an inherently dangerous workplace which may be impracticable or impossible to make safe. If we cannot make the workplace safe, we have to ensure our firefighters are as safe as they can be. All firefighters have a ‘dynamic’ safety responsibility, but overall responsibility lies with the Incident Commander.

The Incident Commander must gather information, evaluate the situation and then apply professional judgement to decide the most appropriate course of action. Hazards must be identified and the risks to firefighters, the public and the environment considered. The benefits of proceeding with the task must be weighed carefully against the risks. As an emergency incident develops the original course of action might become inappropriate for a number of reasons. New hazards and their associated risks may arise (e.g. a building on fire might become unstable); firefighting activities might produce risks to firefighters, people and/or the environment (e.g. contaminated run off water). It is imperative, therefore, that any chosen plan of action or system of work is continually assessed.

3.0 FLOW CHART

This process can be shown in diagrammatic form on the Dynamic Risk Assessment Flow Chart.

Dynamic Risk Assessment Method



4.0 STAGES IN DYNAMIC RISK ASSESSMENT

The incident Commander must evaluate the situation, tasks and persons at risk:

- What tasks need to be carried out?
- What hazards are there in carrying out these tasks?
- What risks are associated with these hazards - to firefighters, other emergency service personnel, the public and the environment?
- What resources are available?

The Incident Commander should devise a plan of action by considering:

- The possible systems of work available, considering agreed procedures and training; They must ensure that the chosen systems of work together with the existing control measures:
- Eliminate the risks or reduce them to an acceptable level. If they do not then they need to consider:
- Introducing additional control measures (e.g. extra or specialist equipment)
- The use of appointed safety officers.
- Abandon the task The Incident Commander then has to reassess the systems of work and the additional control measures to see what risks, if any, remain.

A judgement is then made on whether the benefit gained from carrying out the tasks outweighs the possible consequences if the risks are realized. It might be necessary, if the additional control measures do not significantly improve the situation to go back to the start and evaluate the situation, tasks and persons at risk again. Dynamic risk assessment is continuous. Even if an incident is drawing to a close and things appear to be going all right, a proper and continuous reassessment of the situation still needs to be made.

5.0 Levels of Operational Risk Management

In order to provide an acceptable level of protection at operational incidents, FRF must operate successfully at three levels

Strategic, Systematic and Dynamic.

Strategic: Strategic work safety management is carried out at a whole of government level,

Systematic: Systematic work safety management is carried out by departments including the Fire Commands.

Dynamic: Dynamic risk management is carried out by all personnel at an operational incident.

The main responsibility for dynamic risk assessment lies with the Incident Controller (IC) who must identify the hazards, assess the risks, and then make professional judgements in order to use the available resources in such a way as to achieve an acceptable level of safety during work activities.

Dynamic Risk Assessment

The term ‘Dynamic Risk Assessment’ is commonly used to describe a process of risk assessment being carried out in a changing environment, where what is being assessed is developing as the process itself is being undertaken. This is further complicated for the Incident Controller in that, often, rescues have to be performed, exposures protected and hose lines placed before a complete appreciation of all material facts has been obtained. Nevertheless it is essential that an effective risk assessment is carried out at any scene of operations.

However, in the circumstances of emergency incidents, experience has shown that it is impractical to expect the IC, in addition to the incident size-up and deployment and supervision of crews, to complete some kind of check-list or form. After action has been initiated on the basis of a 'Dynamic Risk Assessment', it is important that this is reviewed and confirmed as quickly as practicable, and further reviewed and confirmed at regular intervals. Also, it is important that the outcome of a risk assessment is recorded, preferably in a way that is 'time stamped' for later retrieval and analysis, such as would be achieved by transmission over the trunked radio network.

For the purposes of this dynamic risk assessment process, the FRF will transmit informative situation reports (sitreps) on the talk group designated for the incident. Although the dynamic management of risk is continuous throughout the incident, the focus of operational activity will change as the incident evolves. It is, therefore, useful to consider the process during three separate stages of an incident. These are;

- **The Initial Stage**
- **The Development Stage**
- **The Closing Stage.**

Initial Stage of Incident

There are 6 steps to the initial assessment of risk:

1. Evaluate the situation, tasks and persons at risk
2. Introduce and declare tactical mode 3. Select safe systems of work
4. Assess the chosen systems of work
5. Introduce additional control measures
6. Re-assess systems of work and additional control measures.

Step 1: Evaluate the Situation, Tasks and Persons at Risk

On the arrival of the initial attendance, the Incident Controller will need to gather information, evaluate the situation and then apply professional judgement to decide the most appropriate course of action. Hazards must be identified and the risks to fire-fighters, the public and the environment considered. The benefits of proceeding with a task must be weighed carefully against the risks. It is important to think before you act rather than act before you think.

In order to identify hazards the Incident Commander will initially need to consider:

- Operational intelligence information available from pre-fire planning, area familiarization etc
- The nature of the tasks to be carried out
- The hazards involved in carrying out the tasks
- The risks involved to: fire-fighters; other emergency service personnel; the public; and the environment
- The resources that are available, e.g. experienced personnel, appliances and
- Equipment, specialist advice.

Step 2: Introduce and Declare Tactical Mode

The declaration of a tactical mode, which is the simple expression of whether it is appropriate to proceed to work in a hazard area or not, is a device to enable Incident Controllers of dynamic emergency incidents to comply with the principles of risk assessment and be seen to have done so. However, in simple terms, after a rapid appraisal of the situation the Incident Controller will either be comfortable in announcing 'offensive mode', which is the most usual mode of operation, or if not must announce 'defensive mode' until sufficient additional information has been gathered, control measures taken, etc and eventually allow 'offensive' to be declared.

This approach is commonly known as 'Default to Defensive'.

The tactical mode procedure assists the Incident Controller to manage an incident effectively without compromising the health and safety of personnel by:

- ensuring that firefighting operations being carried out by a single crew or within a sector do not have an adverse effect on the safety of firefighters in other crews or sectors; and
- generating a record of the outcome of the dynamic risk assessment process conducted by the Incident Controller.

Step 3: Select Safe Systems of Work

The Incident Commander will then need to review the options available in terms of standard procedures. Incident controllers will need to consider the possible systems of work and choose the most appropriate for the situation.

The starting point for consideration must be procedures that have been agreed in pre-planning and training and that personnel available at the incident have sufficient competence to carry out the tasks safely.

Step 4: Assess the Chosen Systems of Work

Once a course of action has been determined, be it offensive or defensive, the Incident Controller needs to make a judgement as to whether or not the risks involved are proportional to the potential benefits of the outcome.

If YES proceed with the tasks after ensuring that:

- Objectives, both individual and team are understood;
- Responsibilities have been clearly allocated; and
- Safety measures and procedures are communicated and understood.

If NO then go back to step 3.

Step 5: Introduce Additional Control Measures

The Incident Controller will need to eliminate, or reduce, any remaining risks to an acceptable level, if possible, by introducing additional control measures, such as:

- Use of additional PPE/C
- Use of BA or airlines
- Use of specialized equipment
- Use of Safety Officer(s).

Step 6: Re-assess Systems of Work and Additional Control Even when safe systems of work are in place, there may well be residual risks. Where such risks remain and are

realized, the Incident Commander should consider the degree of benefit to be gained from carrying out the tasks against the possible consequences.

- If the benefits outweigh the risks, proceed with the tasks
- If the risks outweigh the benefit, do NOT proceed with the tasks, but consider viable alternatives.

Development Stage of Incident

If an incident develops to the extent that the span of control is exceeded or if sectors are designated, the Incident Commander may delegate incident control roles. This may include the appointment of an operations officer or sector/ divisional command responsibilities.

As the incident develops, changing circumstances may make the original course of action inappropriate, for example:

- Firefighting tactics may change from defensive to offensive
- New hazards and their associated risks may arise, e.g. the effects of fire on building stability
- Existing hazards may present different risks
- Personnel may become fatigued.

The Incident Commander, Operations Officer and Sector / Division Commanders need to manage safety by constantly monitoring the situation and reviewing the effectiveness of existing control measures. The appointment of a safety officer (s) may assist with this process.

The Closing Stage of the Incident

The three key activities involved in the closing stages of an incident are:

- Maintaining control
- Welfare, and
- Incident Debrief.

Maintaining Control

The process of task and hazard identification, assessment of risk, planning, organisation, control, monitoring and review of the preventative and protective measures must continue until the last appliance leaves the incident ground. There are usually fewer reasons for accepting risks at this stage, because there are fewer benefits to be gained from the tasks being carried out. The Incident Controller and Sector Commanders should therefore have no hesitation in halting work in order to maintain safety.

As the urgency of the situation diminishes, the Incident Controller may wish to nominate an officer to gather information for the post incident review. Whenever possible, this officer should debrief crews before they leave the incident, whilst events are still fresh in their minds. Details of all 'near misses' i.e. occurrences that could have caused injury but did not in this instance, must be recorded because experience has shown that there are many near misses for every accident that causes harm. If, therefore, we fail to eradicate the causes of a near miss, we will probably fail to prevent injury or damage in the future.

Welfare

The welfare of personnel is an important consideration. It must be given particular attention by the Incident Management Team at arduous incidents or incidents that require a rapid turnover of personnel. The physical condition of crews must be continually monitored by supervisors. Welfare includes provision of rest and feeding which should, where possible, be outside the immediate incident area and always away from any risk of direct or indirect contamination.

Incident Debrief

Following an incident any significant information gained, or lessons learned, must be fed back into the policy and procedures of the Brigade. Points to be covered may be in relation to existing operational intelligence information, personal protective equipment, the provision and use of equipment, other systems of work, instruction, training and levels of safety supervision etc. It is important to highlight any unconventional system or procedure used which was successful or made the working environment safer. It is equally important to highlight all equipment, systems or procedures which did NOT work satisfactorily, or which made the working environment unsafe. Any significant information

gained or lessons learned must be fed back to Brigade management in order to enable any necessary review, re-evaluation, refinement and modification of the risk assessment and its management to ensure the Brigades compliance with the *Work Safety Act*

SOP 3. RISK ASSESSMENT AND HAZARD IDENTIFICATION

1.0 Introduction

Risk Assessment and Hazard Identification are crucial aspects for consideration of the OIC of crews on arrival at the incident.

Task or Activity	
Name of assessor	
Date	

S/N	Potential Hazard	YES	NO	Description of Hazard
1	Mechanical			
1.1	Crushing	Yes	No	
1.2	Cutting/Shearing	Yes	No	
1.3	Entanglement	Yes	No	
1.4	Drawing in/Trapping	Yes	No	
1.5	Impact	Yes	No	
1.6	Stabbing	Yes	No	
1.7	Hand tools	Yes	No	
1.8	Abrasion	Yes	No	
1.9	High Pressure	Yes	No	
1.10	Injection	Yes	No	
1.11	Other mechanical hazard(s)	Yes	No	
2	Electrical			
2.1	Direct contact	Yes	No	
2.2	Indirect contact	Yes	No	
2.3	Short Circuit/Overload	Yes	No	
2.4	Source of ignition	Yes	No	
2.5	Other electrical hazard(s)	Yes	No	
3	Radiation			
3.1	Lasers	Yes		No
3.2	Ionizing radiation	Yes		No
3.3	Electro-magnetic	Yes		No
3.4	Other radiation hazard(s)	Yes		No
4	Work Activity			
4.1	Highly repetitive actions	Yes		No
4.2	Stressful postures	Yes		No
4.3	Lifting/Handling	Yes		No
4.4	Mental overload/stress	Yes		No
4.5	Visual fatigue	Yes		No
4.6	Inadequate rest breaks	Yes		No
4.7	Poor shift arrangements	Yes		No

4.8	Any other activity	Yes	No
5	Hazardous Substances		
5.1	Toxic fluids	Yes	No
5.2	Toxic gas/mist/fumes	Yes	No
5.3	Toxic dust (Inc. asbestos)	Yes	No
5.4	Flammable fluids	Yes	No
5.5	Flammable gas/mist/fumes	Yes	No
5.6	Flammable dust	Yes	No
5.7	Flammable substances	Yes	No
5.8	Biological hazards	Yes	No
5.9	Other Hazardous substances	Yes	No
6	Environment		
6.1	Localized hot surface(s)	Yes	No
6.2	Localized cold surface(s)	Yes	No
6.3	Hot ambient temperature	Yes	No
6.4	Cold ambient temperature	Yes	No
6.5	Poor ventilation	Yes	No
6.6	Significant noise	Yes	No
6.7	Significant vibration	Yes	No
6.8	Poor lighting	Yes	No
6.9	Any other	Yes	No
7	General		
7.1	Fire	Yes	No
7.2	Fall from height	Yes	No
7.3	Fall	Yes	No
7.4	Falling/flying debris	Yes	No
7.5	Moving vehicles	Yes	No
7.6	Confined spaces	Yes	No
7.7	Drowning	Yes	No
7.8	Compressed air	Yes	No
7.9	Noise	Yes	No
7.1	Excavations	Yes	No
7.11	Drowning	Yes	No
7.12	Slips, trips and falls	Yes	No
7.13	Animals	Yes	No
7.14	Violence	Yes	No
7.15	Other	Yes	No

2.0 The Ranking of Hazards by Risk

Ranking produces a priority list of hazards to be controlled on a worst first basis. It takes account of the consequences, likely severity and likely occurrence of the event happening. It is possible to rank risk using a simple formula.

Risk = Likely Occurrence X Likely Severity

Likely Occurrence		Value
Highly Likely	Very likely to occur (shortly after arrival or first crew)	**10** **9**
Probable	Will certainly occur in time (based on the number of incidents and past experience.)	**8** **7**
Reasonably Probable	Probably will occur in time.	**6** **5**
Remote	May occur in time.	**4** **3**
Unlikely	Very few or no instances of anything like this happening.	**2** **1**
Likely Severity		**Value**
Catastrophic	Imminent danger exists, likely to cause death and/or severe illness/injury (possibly on a wide scale).	**10** **9**
Critical	Hazard can result in death, severe injury or serious illness. Such injuries will be classified as “major” as a minimum.	**8** **7**
Serious	Hazard could result in severe injury or illness, classified as major or notifiable.	**6** **5**
Moderate	Hazard could cause illness or injury probably classified as notifiable.	**4** **3**
Negligible	Hazard could result in minor injuries/illness that will require at worst, first aid only	**2** **1**

3.0 Risk Rating Interpretation Likely Occurrence of 7 x a Likely Severity of 8 = 56 would require a high priority action. An insignificant figure i.e. anything 10 or below would require no or very little action since, in a systematic way, the risk is constrained by established “safe systems of work”.

I	**1-10 TRIVIAL RISK – INSIGNIFICANT**
	The combination of severity and probability is extremely low. No further action or regular review required unless circumstances change.
L	**11-20 ADEQUATE CONTROL - LOW PRIORITY ACTION**
	The present system is working reasonably satisfactory although there may be a need to review some working practices and provide additional training or information. Occasional review will be required.
M	**21-50 REASONABLE CONTROL - MEDIUM PRIORITY ACTION**
	The present system is unsatisfactory in some areas. Review the system of work and eliminate or control the hazards where practicable. Provide additional training and information where indicated. Inform personnel of the hazards. Review will be required.
H	**51-80 UNSATISFACTORY CONTROL - HIGH PRIORITY ACTION**
	The present system is unsatisfactory in many areas. Introduce a systematic approach (based on procedures/equipment) to eliminate/control the hazard. Provide additional training/information where indicated. Regular programmed review will be required.
U	**81-100 LITTLE OR NO CONTROL - URGENT ACTION**
	The combination of severity and probability is too high. This hazardous situation must be avoided. Action to be taken without undue delay.

Risk = Likely Occurrence X Likely Severity

	Likely Severity									
Likely Occurrence	10	9	8	7	6	5	4	3	2	1
10	100	90	80	70	60	50	40	30	20	10
9	90	81	72	63	54	45	36	27	18	9
8	80	72	64	56	48	40	32	24	16	8
7	70	63	56	49	42	35	28	21	14	7
6	60	54	48	42	36	30	24	18	12	6
5	50	45	40	35	30	25	20	15	10	5
4	40	36	32	28	24	20	16	12	8	4
3	30	27	24	21	18	15	12	9	6	3
2	20	18	16	14	12	10	8	6	4	2
1	10	9	8	7	6	5	4	3	2	1

A: FRF Risk Assessment Forms

Flooding Risk Assessment

APPENDIX A: Activity List

Activity title	1. Working near floodwater, involving personnel trained to Land Based Rescue level only. 2. Pumping operations near floodwater	
Ref No.	**Activity**	**Priority**
01	Mobile to incident.	Low
02	Donning water rescue PPE.	Low
03	Getting to area of operations on foot, survey of site, e.g. access, egress points, setting up of safety zone.	Mod
04	Deployment of safety officers & setting up of equipment.	Mod
05	Rescue of peoples from static or fast flowing floodwater.	Mod
06	Transport of casualty on land.	Low
07	Making up & retrieving equipment.	Mod
08	Decontamination & cleaning of equipment.	Low
09	Pumping operations in or next to static or fast flowing floodwater.	Low
Function:		
Department:		
Assessor:		
Signature:		
Date:		

HEALTH & SAFETY/AUDIT USE ONLY			
Staff ID:	Code:	Date received:	Date filed:
Validated by:	Date validated:	Signature:	

Risk Assessment Form

No.	Task	Hazard	Existing Controls	Risk Groups	S	L	R	Result
01	Mobile to Incident	Adverse road conditions i.e. static and flowing water. Occupants trapped in vehicle, immersions being swept away by water. Vehicle damage caused by entering water. Vehicle making contact with underwater obstruction.	Safety awareness hazard perception of driver. Avoid driving through flood water if possible. Assess depth prior to entering floodwater. Assess route and obstructions prior to entering floodwater. Maintain contact with Operations Control Room If in doubt do not proceed in vehicle Continue Dynamic Risk Assessment by OIC and Driver		2	1	2	Low
02	Donning additional rescue equipment	Incorrect or inappropriate level of PPE worn	All personnel to don appropriate level of PPE prior to proceeding on foot to scene of operations. Personal floating devices to be worn. The fire helmet should be removed unless there is a possibility of falling debris, in which case the chinstrap should be unfastened, this is to prevent a neck injury in the event of accidental immersion. 3 meter safety exclusion area set		1	1	1	Low

Risk Assessment Form

No.	Task	Hazard	Existing Controls	Risk Groups	S	L	R	Result
03	Getting to area of operations on foot, survey site, e.g. access egress points, setting up of safety zone	Dangerous access routes due to location, wet, slippery ground, steep banks etc. General safety concerns due to dynamic nature of work place. Accidental immersion in flood water.	Safety Awareness of personnel. Only trained personnel to enter risk area & only with personal floatation device. OIC and crew members to carry out dynamic risk assessment prior to and during operations. All personnel trained in hazard perception and safety awareness 3 meter safety exclusion area set up for those not wearing PFD. Ensure that there are suitable safe access and egress routes. Ensure that bank/area to be stood on or used is sufficiently strong enough to hold the weight. Weather, including wind and temperature to be monitored. Awareness of tidal effects, which can cause strong currents and strand people. In the event of DCD personnel accidentally falling into water and finding themselves in difficulty and assistance message will be sent to operations control room, stating “Water Emergency” this will provide immediate assistance at the incident. Safety officer in place, teams will always work in pairs and in throw lines ready to deploy.		2	2	4	Mod

Risk Assessment Form

No.	Task	Hazard	Existing Controls	Risk Groups	S	L	R	Result
04	Deployment of safety officers & setting up of equipment	Dangerous access & egress routes, slippery ground, steep banks. Accidental immersion in floodwater whilst preparing for operations. General safety concerns due to dynamic nature of workplace.	Safety awareness of personnel. Only trained personnel to be used. In the event of DCD personnel accidentally falling into water and finding themselves in difficulty an assistance message will be sent to control stating "Water Emergency" this will provide immediate assistance at the incident. Overall safety to be monitored by the OIC. Dynamic risk assessment by OIC and crew members prior to and during operations. Ensure the bank/area to be stood or used is sufficiently strong enough to hold the weight. Weather including wind and temperature to be monitored. Awareness of tidal effects, which can cause strong currents or strand people.		2	2	4	Mod

Risk Assessment Form

No.	Task	Hazard	Existing Controls	Risk Groups	S	L	R	Result
05	Rescue of people from static or fast flowing floodwater.	Danger of being swept away Risk of drowning by immersion in floodwater.	Briefing of what hazards are and how to alert crews of danger. Firefighting PPE including PFD to be worn at all times. Under no circumstances are land based rescue personnel to enter the water. Personnel to work in pairs, minimum of personnel required to carry out task to be in 3m safety exclusion zone. In the event of DCD personnel accidentally falling into water and finding themselves in difficulty an assistance message will be sent to the operations room "Water Emergency" this will provide immediate assistance at the incident. Safety Officer in place, teams will always work in pairs and with throw lines ready to deploy. Throw lines and /or hose inflation system to be used to effect rescues by qualified personnel if deemed appropriate by OIC. The fire helmet should be removed unless there is a risk of falling debris, in which case the chin strap should be unfastened, this is to prevent a neck injury in the event of accidental immersion. Dynamic Risk Assessment by OIC and crew members.		2	2	4	Mod

06	Transport of casualty on land.	Manual-handling of casualty over insecure ground near water hazard.	All personnel trained in correct manual handling techniques. Ensure regular rest periods Ensure sufficient manpower available to complete tasks safely.		2	2	1	Low
07	Making up & retrieving equipment.	Danger of falling into water, slippery ground, steep banks.	Only trained personnel with full safety equipment & PPE to enter risk area					

Risk Assessment Form

No.	Task	Hazard	Existing Controls	Risk Groups	S	L	R	Result
08	Decontamination & cleaning of equipment	Danger of infection	Full PPE including latex gloves to be worn. Normal washing of kit as per routine will be deemed appropriate. However excessively contaminated gear to be bagged, labeled and returned to supplies & support workshops for action.		2	1	2	Low
09	Pumping operations next to static or fast flowing floodwater	Hose lines causing trip hazards next to open water. Contamination by handling equipment exposed to sewage, effluent and other chemical and biological hazards. Effects of tidal and rising water.	Ensure clear pathways are maintained at all times and that trip hazards are removed or clearly notified. PFD to be worn at all times when near floodwater. 3-Meter safety exclusion area set up. In the event of DCD personnel accidentally falling into water and finding themselves in difficulty an assistance message will be sent to Operations Control Room stating “Water Emergency” this will provide immediate assistance at the incident. All personnel to wear surgical gloves under PPE gloves. Avoid contact with floodwater and water spray. Advice and information obtained from relevant authorities. Clean all equipment potentially contaminated immediately after use. Awareness of tidal effects, which can cause strong currents or strand people. OIC to be informed and vehicle to be moved to higher ground ASAP.		2	1	2	Low

Date:	Addressed By:	Location:	Ref. No.	
Activity:				
Result: **L=LOW** (Negotiable) **M = MOD** (Tolerable) **H = High** (Intolerable) **U = Unsure** (Contact H&S Audit)			Review Date:	

9.0 Additional Control Measures

1. Safety of crews is paramount and the Incident Commander, in consultation with an expert Water Rescue technician – Level 1, where available, will carry out a thorough Dynamic Risk Assessment of the incident and ensure that adequate control measures are in place prior to committing crews.

2. DCD personnel should never undertake work near water when they are not completely satisfied that they can make a dynamic risk assessment and be satisfied for their own safety and not compromise that of others.

3. Under no circumstances will personnel enter the water, unless they are trained to Water Rescue Technician Level 1 and are wearing appropriate personal protective equipment.

4. Rescue operations should not commence near floodwater until adequate staff and safety resources are available.

5. Only personnel trained to Water Rescue Technician Level 1 can be used to operate within the water itself as they have the necessary training to achieve a self-rescue and be able to swim defensively until a suitable site is recognized and used to make their way to safety.

Notes:

References used to compile this Risk Assessment are:

FRF Risk Assessment Department (Operations): **Health & Safety At Work Act & Publications**

SOP 4. DYNAMIC RISK ASSESSMENT ON OPERATION NEAR WATER.

1. All incidents which require personnel to work near water, will require good command and control, as well as highly committed and trained personnel. Appropriately qualified and experienced Water Rescue Technicians will always guide Incident Commanders.

2. When attending incidents of this nature considerable pressure may be applied by members of the public demanding that crews take immediate action. For this reason qualified personnel will dress in full personal protective equipment PPE prior to arrival at the scene.

3. When a body is suddenly immersed in cold water it encounters a number of symptoms, i.e. 'cold water shock' which has the effect of giving the body a strong drive to inhale deeply followed by excessive breathing, an increase in the heart rate and a reduction in blood flow to the skin. All these symptoms can have serious effects on the human body.

4. This risk assessment to be reviewed annually, as a result of an accident, change of procedure or equipment.

SOP 5. WORKING AT HEIGHTS

Scope

On the occasions that crews are expected to perform duties above ground level, i.e working at height off ladders or climbing devices, OIC should always carry out a Risk Assessment and ensure that the crews are aware of the nature of ***Dynamic Risk Assessment***, (view SOP/ Dynamic Risk Assessment)

2.0. SAFETY

2.1 Incident Commander to consider any factors that may affect crew safety.

- Overhead Obstructions / Hazards
- Electrical Lines
- Windy Conditions
- Falling Objects
- Heavy Smoke
- Flashover / Backdraft Risk

Need for crews to work at height?

Is there a REAL need to work at height or is there any alternative means, mechanical or otherwise

What is the degree of urgency?

Can the task be carried out in a complete controlled environment?

Are alternatives available?

Is it possible to use mechanical means?

Safe Systems of Work

- Have all crews been briefed in the safe systems of work and are conversant with the safety systems available
- Fully brief crews.
- Wear appropriate harnesses/lanyards.
- Select an unquestionably safe anchor point.

- Use work restraint to protect crews from the danger of falling.
- Use fall arrest when there is a danger of falling.
- Ensure there are means available to retrieve a suspended crew member before operations begin.
- Ladder or climbing device positioning and locating; Head and Heel

3.0 Operation & Task Guidance

TYPE OF TASK	TYPE OF PROTECTION	PERSONNEL UTILIZED
• Short duration, ie. gaining entry or dislodging debris. (Remaining on ladder).	Full PPE. Leg lock on ladder and ladder footed at all times. Clip on using lanyard or safety line.	All personnel.
• Working on a roof, ie. At fire or making safe. Utilizing a roof or access ladder. ** TAKE CARE OF OPENINGS – GLASS or OTHER	Full PPE Leg lock on main ladder and ladder footed at all times. Clip on using lanyard. Ladder securing device.	All personnel.
• Working on a flat roof or utilizing flat roof for access.	Full PPE. Fall protection equipment if working within 2 meters of the roof edge.	All personnel.
• Working or approaching within two meters of the edge of a flat roof or any fragile area.	Working at Height equipment. Full PPE.	All personnel trained in the use of Working at Height equipment.
• Working a jet from the head of a ladder.	Working at Height equipment. Full PPE.	All personnel trained in the use of Working at Height equipment.
• Working from cage of Aerial Appliance. • Lowering a casualty.	Working at Height equipment. Full PPE.	Trained cage operators only.

• Rescue from shafts, cliffs, tower cranes.	Specialist Line Rescue equipment.	Specialist Operators, (Line Rescue Team).

SOP 6. WORKING SAFELY IN SMOKE

1.0 Introduction

To ensure that B.A. Wearers understand fully the safety procedures to be adopted when working in smoke.

1.1 Safety Principles

1. Understand the composition and movement of smoke.
2. Be Aware of 'Back Draught and Flashover'.
3. Perform the correct method of working / moving in smoke.
4. How to locate the Fire.
5. Understand the correct method and purpose of Ventilation.

The Safe Working Practices in Smoke should be practiced as per Breathing Apparatus SOP and in accordance with BA Procedures.

2.0 WHAT IS SMOKE?

- Smoke is a vaporous substance made up of:
- Solid particles, ie., Soot.
- Droplets of water and other liquids.
- Hot products of combustion.
- Unburnt gases.

It is vitally important that the B.A. Wearer recognizes that smoke could be ignited at any time.

3.0 Smoke Travel

Recognize Smoke Travel in 'Size-Up'.

- Smoke and hot gases will rise vertically.
- Carried in air currents.
- Move sideways at ceiling level.
- Mushrooming caused by walls.
- The volume of smoke is no indication of the size of the fire.

4.0 Flashover

In a compartment fire there can come a stage where radiated heat from the fire and smoke plume causes the rapid ignition of all exposed combustibles within the compartment. This sudden and sustained transition from a growing fire to a fully developed fire is **"Flashover".**

5.0 Back-draught

Limited ventilation can lead to a fire in a compartment producing significant proportions of unburnt gases. If these accumulate the atmosphere may become vapour rich and so combustion will become subdued. If an opening is made allowing a fresh supply of oxygen to enter the compartment a sudden fire may develop with explosive force and may move out through the opening. This is a "Back-draught"

6.0 Working And Moving Safely

- Use vision before applying media.
- Keep personnel to a minimum.
- Keep entry and exit paths clear.
- Make provision for reliefs.
- Secure line of retreat. Be aware of:
- Flashover / Back draught /Collapsed Floors.
- Continuous water supply essential.
- Keep low, shuffle, use back of hand.
- Visibility may be better at low level.
- Regular gauge checks.
- Communications.
- Note route taken.
- Use senses to indicate location.
- Utilize hoses to follow route or Guide – Line Procedures.
- Be aware that windows or mirrors can reflect the fire.
- Make use of lamps/torches.
- Thermal image cameras.

- Always follow correct B.A. procedures.

6.1. Safety On Stairways

- One person at a time.
- Keep close to wall side.
- Spread weight evenly.
- Test each tread is capable of bearing your weight.
- If Guideline in use, connect separately but maintain communication.
- Descend stairs backwards.

7.0 Locating The Fire

There are a number of things that the firefighter can use to locate the seat of the fire:

- Thermal image cameras
- Senses
- Discoloration of Paintwork
- Buckling of metal
- Colour of windows
- Smoke emission
- Cracked windows or per specification
- Migration of personnel

8.0 Purpose of Ventilation

- To make an atmosphere that is survivable for persons unable to escape without assistance.
- To prevent or reduce damage to the Building and its contents from smoke and heat.
- To prevent the spread of fire by a buildup of heat.
- To enable fire fighters to enter, find and extinguish the fire quickly without suffering excessive punishment from heat and smoke.

9.0 Method of Ventilation

- Only carried out on instruction of OIC.

- Branches in position.
- Vent at highest point first.
- Allow replacement air to enter at low level.
- High level vent down wind. Subject to necessary precautions it is important that ventilation begins as soon as possible.

If unwisely or incorrectly performed, ventilation can lead to rapid fire development.

10.0 BA Wearing Safety – Gauge Checks

The contents gauge is the only indicator of remaining work time. Check it regularly. Team Leaders are responsible for periodically reminding team members to check their contents gauge. Wearers are responsible for checking the gauge reading frequently. As a guide the gauge should be checked at:

- Changes in direction
- When changing levels
- When instructed by Team Leader

SOP 7. SAFETY AT INCIDENTS ON OR NEAR HIGHWAYS

1.0 Fire Operations on or Near Highways

This Standard Operating Procedure (SOP) applies to incidents occurring on or near roads, main roads including major Highways. Procedures for dealing with incidents involving fires in vehicles are covered in SOP/Vehicle Fire

2.0 Specific Hazards & Risks

2.1 Moving Vehicles

Vehicles and personnel are in obvious danger of being struck by other road users when attending incidents on or near roads. The speed and weight of vehicles will vary depending upon the type of road and time of day. The presence of stationary vehicles on the roadway also increases the risk of accidents caused by road users taking avoiding action. These problems are increased when incidents happen at night, when visibility is poor or when road conditions are wet.

There have also been occasions during vehicle fires where the vehicle involved in the fire has been left in gear and an electrical short circuit has occurred, causing the vehicle to move unexpectedly. Using hard shoulders as normal traffic lanes on motorways and dual carriageways can cause significant difficulties when accessing incidents.

2.2 Stationary Vehicles

Stationary or slow-moving vehicles may restrict access for emergency vehicles and increase the hazard presented by moving vehicles. Attempting to move stationary vehicles by pushing, pulling or ‘bouncing’ presents a risk of manual handling injuries.

3.0 Location and Conditions

The location of the incident may present serious risk of injury to operational personnel due to:

- Poor lighting;
- Slippery or uneven ground conditions;
- Wreckage and equipment;
- Adverse weather conditions;

- The movement of emergency service vehicles.

Where vehicles have collided with roadside poles or street furniture, overhead or underground service cables can be affected thus presenting a risk of electrocution. It is also possible that gas service pipes can be affected.

4.0 Weather Conditions

Prevailing weather conditions such as rain, fog, poor visibility may introduce additional risks to personnel. In some cases, the weather conditions may have contributed to the incident in the first instance.

5.0 Key Control Measures

5.1 Pre-planning

The responsibility for incidents involving fire or the rescue of trapped persons on or near roadways lies with the Fire Officer. Fire Officer and Police officer have the authority to close or restrict access on any roadway that may be affected. And it may be necessary to;

- close a highway;
- stop and regulate traffic

Liaison with the Police and other agencies will ensure that the incident runs smoothly.

5.2 Personal Protective Equipment (PPE)

When working near moving vehicles high visibility surcoats and helmets must be worn at all times. Additional PPE must also be worn, as appropriate to the incident.

5.3 Hazard Identification

For internal transport operations hazard identification will include the hazard warning diamond and the Substance Identification Number (SIN) / United Nations (UN) number

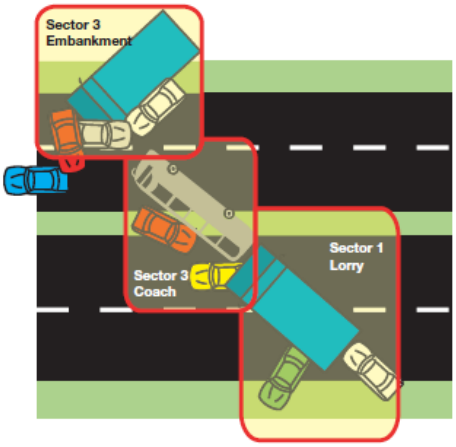
5.3.1 HAZCHEM panel

Some vehicles may display the markings required by the ADR agreement (i.e. the European agreement concerning the carriage of dangerous goods by road).

6.0 Sectorization

At larger or more complex incidents on main roadways and Highways, sectorization may be required. Operational sectors should be arranged to suit the needs of the incident and the resources. An example of sectorizing a multi-vehicle on a dual carriageway is provided below.

Sectors should be identified numerically and, where appropriate, using key features, eg. Sector 1 Lorry, Sector 2 Coach, Sector 3 Embankment, etc.



7.0 Environmental Considerations

At incidents involving fuel, oil or leakage of any other pollutant, road drainage systems should be considered. Various drainage systems may be found depending on the road type and the possibility of containing leakages on the road's surface by blocking drains or containing pollutants within the drainage system should be identified.

Advice relating to road drainage systems can be sought from the Municipality or Road Agency. Operations Control Room will contact these agencies on request and a representative from either agency can be requested to attend the incident.

8.0 Operational Procedures

8.1 Mobilization

Calls can be received via the Fire and Rescue Force or directly from an individual involved in an incident or who has observed the incident. If a call is received from another agency Operations Control will confirm that all other relevant agencies have been informed. If a call is received from a member of the public Operations Control will always inform the Fire and Rescue Force of an incident on or near a road way.

8.2 Proceeding to an Incident

Due to the nature of incidents occurring on or near main roads and Highways special consideration must be given to the approach to an incident. The approach to an incident may be affected by:

- Traffic queuing as a result of blocked lanes or road;
- Road surface affected by oil or debris from an accident;
- Vehicles having shed their loads;
- Casualties and rescuers in roadways.

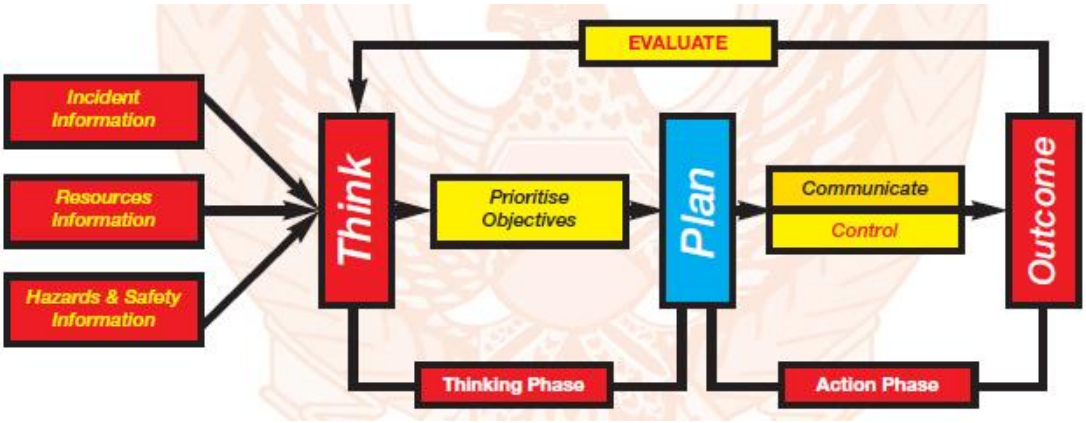
Approaching fire engine should drive at an appropriate speed to ensure these hazards can be avoided. At incidents on Highways and major dual carriageways, a message should be sent immediately to the Operations Control Room informing them of the nature of the incident and the carriageways affected.

When carriageways are completely blocked assistance messages to Operations Control should include information regarding points of access. In these circumstances the Fire and Rescue Force will have to be requested to assist appliances in reaching the incident, and it may be necessary to set up holding areas for responding emergency vehicles.

In order to avoid confusion, on multi-lane roads (including Highways) the lane nearest to the verge (or hard shoulder on Highways) will be referred to as “Lane 1”, with additional

lanes numbered consecutively. The highest lane number is the lane nearest the centre of the road (or the central reservation on Highways).

Operational Tactics



8.3 Positioning of fire engine and cones

- Fend off 50 meters or more from incident at 30 degrees to road
- Appliances fending off leave blue lights on
- Consider access / egress of ambulance, fire engine, bowser and other responders vehicles
- Only cone off area from appliance to scene of operations
- Do not use signage on motorways
- On roads position signage as appropriate to the risk and the road speed

8.4 Inform Control

- Exact location of incident
- Roads / lanes affected
- Other agencies in attendance
- Consider request for Environment

Agency, Highways or road Agency (LATRA Agency)

8.5 PPE

- High visibility surcoats and helmets must be worn
- All other appropriate PPE must be considered

8.6 Hazard Identification

Gather information from any signage or labels such as HAZCHEM / Multi- Load action codes

8.7 Environmental Considerations

- Consider site drainage
- Report use of firefighting foam and any leaks of pollutants immediately

8.8 Fending Off, Cones and Signage

- The first appliance should be positioned before the incident in a “fend off” position at an angle of about 30 degrees to the approaching traffic and in the same lane(s) as the incident;
- The Incident Commander (IC) should carry out an immediate risk assessment to determine whether traffic should be brought to a halt to provide crews with a safe working area. If considered necessary, traffic should be stopped and a message sent via Operations Control requesting the attendance of the Police.

8.9 Coning

The area extending from the fire appliance which is in the fend off position and the furthest point of the incident scene must be coned off to provide a safe working area.

- At incidents on Highways or Dual Carriageways firefighters must not place cones behind the appliance in the approaching lane to the incident, it is the responsibility of the Police to manage this area.
- At incidents on single carriage way roads, when the police are not in attendance I.C. may consider place cones behind the appliance in the approaching lane to the incident.

The diagrams below show fending off positions and the placement of cones for incidents occurring on a Main Highway or dual carriageway.

SOP 8. HEALTH AND SAFETY

1.0 Firefighter's Safety/Survival Guide

The purpose of this document is to provide safety guidelines and rules that describe the firefighter behavioral safety cycle. The focus is on safety state in simple terms with accountability of all members at an Operational level. The firefighter 'safety cycle' includes specific stages of the operation supported by activities/tasks and safety behaviors. These elements are further supported by proper supervision and training which are critical to performing our job successfully and safely.

2.0 Safety Values:

- Supervisors are not empowered to compromise safety procedures.
- Each member is accountable to always practice safe behaviors.
- We will always review our operations and actions for continuous safety improvement.
- The safety cycles begin with a clear understanding of the stages of our service.

3.0. The Safety Evaluation

There are clear safety connects/disconnects between the stages that require us to check in on the safety of the current stage of operation before we go on to the next stage. If we are out of balance in the current stage, we must correct the situation before we go on to the next stage. This prevents the snowball effect that over several stages can create an almost irreversible cluster and a very unsafe event for the participant. *Our standard risk management plan should begin with the first stage of our operations:*

1. "We May Risk Our Lives A Lot Within A Structured Plan to Protect Savable Lives"
2. "We May Risk Our Lives A Little Within A Structure Plan to Protect Savable Property"
3. "We Will Not Risk Our Lives At All To Save Lives Or Properties That Are Already Lost"

3.1 Activities/Behaviors

The following pages describe activities necessary to safely address each stage of operation along with safety behaviors that keep up on the safety of the overall operation.

Station Managers have a key leadership role to influence the behaviors of their crews "If It's Predictable, It's Preventable".

Stage 1: Incident Etiquette *Activity/Behaviors*

Arrival order:

Respect the Arrival Order As per Station Pre-Determined Attendance (P.D.A.) Follow Driving and Staging Procedures

- Stay in line – don't surround first arriving unit or Officer
- Do not take advantage of the situation

Follow orders:

- Work for the Incident Commander
- Do Not Freelance – Work for Command or Sectors, Don't Self-Assign

Work within SOPs and assigned task Decisions and actions:

- All actions should be driven by SOPs
- Actions based on direct orders
- Make Conscious decisions
- Safety conscious attitude

Operate Safely at All Times

Help those who need help:

- Young help the old (muscle and energy) we all have strengths and weaknesses that complement each other
- Old help the young (cunning and experiences) – work within strengths of the crew.

Draw from the team's strength:

- Do whatever needs to be done – safely
- Demonstrate Nice Manners And Be Courteous Face-To face, Over The Radio, Tetras and Telephones
- Improvise and overcome
- Be a mentor
- Lead by example

Stage 2: Style

Activity/Behavior

Controlled Hustle/Act Professionally:

- Not rushed and not slow
- Do not blast off or shout un-controlled
- Jackets fully fastened and skill in our appearance
- Always under control and well-managed
- Cool, calm and composed

4.0 Dressed Appropriately for the Event

- When things get worse, we should get better
- Leave ego at home
- Mature – highly experienced (collectively)
- “Attached” vs. “detached”
- (attached = important urgent event; feel responsible)
- (detached = “we didn’t light it” “its not our responsibility” – keep in perspective)

SOP-Risk management driven:

- Address Safety Issues
- Standard conditions, actions and outcomes
- Know the appropriate tactical operation
- Stay within your role

- Bring a positive attitude with you
- Have the right tools
- No surprises
- Confront and Resolve Issues
- Should have a positive effect on the operation

Stage 3: Pre-Incident Preparation

- Risk Management Planning starts here.

Activity/Behaviors Sops:

- Review procedures
- Should be clarified and validated
- Should be followed during training

Must be communicated in Training:

- Training Must be Consistent with Sops
- Must be accomplished at all levels
- Must be consistent throughout department
- Include drills, tabletops and discussions
- Include testing and evaluations to assure compliance
- Stay physically fit

Practice & Drill:

- Daily Practice how you want to perform
- Single-station, multi-Station, Divisional level Exercises
- Include in-station and out-of-station responses
- From dressing out to completion
- Who does what – Station develop routine Pre-incident tactical planning:
- Tabletop with specific buildings & Risks
- Tabletop with specific incidents (house, shop mall, high-rise, Specific Risk incidents, etc.)
- Tactical pre-plans and walk throughs included

Teams:

- Single Station crews
- Multi-Stations that respond together often
- Attack teams with support functions Incident Mobilisation Ready state:
- Check Apparatus
- Check Equipment and Tools
- Secure Tools in Properly Designed Area
- SCBA – Check and Secure In Proper Place
- No loose stuff in cab – secure all equipment in the cab
- Map book; multi-residential map book; HAZ-MAT books

Stage 4: Call Received and Dispatched

Activity/Behaviors

Request for service:

- Our first contact with customer

Information gathering:

- Be calm and courteous
- Ask appropriate questions (specific to call type)
- What corner; exact location; apartment #; business name
- Special Hazard Information
- Determine appropriate response Dispatch – Deployment processing:
- Potential violent incidents require a higher level of deployment and attention
- Timely manner
- Consider terminology
- Process complete information received
- Accurate information, i.e. structure fire or main concentration of fire
- Radio Channel and Comms Protocols should be given

Actual dispatch:

- Dispatcher's voice, inflection and urgency (modulation and articulation) – consistent on all dispatches
- Repeat significant information (channel, address, units)
- Vocal message regarding additional urgent messages

Response – En Route:

- Confirm urgent messages via radio
- Update incident information as needed
- Inform Senior Officers Accordingly

Stage 5: Station alerting – Transmission of Response Information

Activity/Behaviors

Vocal:

- Listen to information
- Be in a position to hear and respond
- Calm and professional reaction
- Check wall map if it's needed
- Station Commander should use map book
- Take a hardcopy from printer
- Officer in Charge function (Driver watch the road)
- Monitor for additional information
- Acknowledgements
- Notice how call came in

Radio:

- Use communications order model
- Check for proper channel

Stage 6: Initial Response / In station and Out-of-Station

Activity/Behaviors

Dressing:

- Never Dress En route without Seatbelt On
- Pull off road if necessary
- Dress prior to getting on apparatus or dress after arrival on scene
- Officer-In-Charge Should Control Pace
- If necessary, dress in staging

Starting:

- Always Use Seat Belts
- Safety Conscious Attitude

- Respond when you are dispatched
- Should be controlled and professional Briefing:
- Commanders communicates with crew En-route
- Start to formulate action plan
- Accountability of crew is critical

Stage 7: En-Route Response

Activity/Behaviors

Driving:

- Conservative and consistent response
- Non-Competitive – No Racing
- Officer in Charge role is the routing and map book
- Driver's role is driving and knowing where they're going
- No Passing of other vehicles unless acknowledged
- Expect not to be seen or heard by traffic

Dressing:

- Dress before departure
- Dress at staging area if necessary, while apparatus is stopped
- Stay seat belted and restrained when apparatus is moving

Riding:

- Focus on your specific task
- Officer in Charge role use pocket book and Station References, Driver Drives
- Firefighters always assist defensively – another set of eyes; backing spotter; spotter -- for safe maneuvering
- Do not remove seatbelts or release door latches until apparatus is completely stopped
- Don't do paperwork en-Route – act as a second set of eyes

Information management/communication:

- Utilize radio, establish TETRA face-to face
- Communicate with crew, other Stations & Operations Room
- Use cellular phones

- Consider call back number
- Consider calling Operations Room for additional information – consider using the Radio sets or even handphone sets in case of Communications Blackout
- Use map books: apartment complexes; street and hydrant guide; other tactical Hazards

Stage 8: INITIAL ARRIVAL – COMMAND (ops/sop/Incident Command)

Activity/Behaviors

- Strategy determination – management (Dynamic Risk assessment, game plan):
- Must Be Based On Risk Management Plan
- Declare Strategy – Offensive Or Defensive

Radio report:

- Give On Scene Report
- Declare Your Strategy
- Include Accountability
- Crews deployed & Tactics
- Short and concise, controlled, right channel

Command assumption:

- Officer in Charge Must Assume The Mode Selected
- An Incident Commander or Incident Command Support should not be the lead involved in Fire Fighting Tactics inside the “Hot Zone”
- Consider On-coming Officers

Evaluation:

- Consider Water Supply – Take A Hydrant Or Call For Assistance
- Recon the building (good function for rescue units)
- Consider set up time

Apparatus placement:

- Apparatus should not block traffic lanes of other apparatus at fire scenes (rescue units, Senior Officers / Commanders, staff cars)
- Heads-up when exiting apparatus – look both ways; check for hazards on the ground

- Rescues need special supervision and attention – assign to Stations or sectors for accountability
- Place Apparatus To Protect Scene And Firefighters
- Reduce blinding lights to what is essential for a safe operation
- Switch Off Blue (Emergency) lights to what is essential for a safe operation and only the first attending appliance or control Vehicle
- Staff cars, rescues, chief cars need to be out of forward operating areas

Crew assignments:

- Check in with Officer in Charge
- Wait for Officer in Charge's directions/orders
- Firefighters support action plan of command
- Crews/sectors/branches support action plan of command
- Rescue personnel should be assigned to a crew or sectors

Stage 9: Initial Arrival – Staging

Activity/Behavior

Staging

- Allows commander to formulate and implement plan
- Used as a resource pool
- Level I staging:
- Automatic When 3 Or More Stations Are Dispatched

Use your radio to coordinate actions when units simultaneously arrive

Level II staging:

- consider a rehab unit in the Level II staging area when temperatures are high
- first arriving officer assigns a fellow officer for staging officer responsibilities
- subsequent arriving units check in with staging officer

Level III staging:

- keep crew together and ready to respond immediately when cleared to do so
- stay in contact with dispatch center
- get as much information about the incident and the scene as possible

Reporting:

- Use order model
- Be specific
- Progress reports

Assignment:

- Pay attention, stay focused
- Share ideas to help command
- Recon from your position
- Be patient
- Prioritize your messages
- Understand strategy and how your crew may fit in
- Communicate with your crew

Response:

- Proceed carefully to assignment
- Use pedestrian speed (3-5 mph)

Stage 10: Driving Hot And Warm Zones

ACTIVITY/BEHAVIORS

- Speed limit/driving procedures
- Follow Sops – (Ops/Sops/2010)
- Driver Focus on the Road and Driving
- Firefighters Seat Belted
- Drive conservatively
- Follow RTA Code when possible
- Use pedestrian speed (3-5 mph) in and around the incident
- Officer in Charge focus on the assignment
- Officer in Charge is responsible for safe operation Protect response neighbors, other responding fire units:
- Always watch out for Moving or Non-Moving Firefighters
- Work as a team
- Assist each other if possible

- Consider lighting
- Use warning lights
- Do not block access
- Consider collapse profile
- Consider overhead wires/obstructions
- Do not become and exposure
- Protect crew during dismount or other activities near apparatus
- Protect Drivers
- Protect crew in staging from violent Activity

Stage 11: Initial Attack

Activity/Behaviors

- Attack planning with Incident Commander:
- Establish Strong Incident Command
- Remember Firefighter Safety
- Slow down
- Gain composure and focus
- Good command location and in a specific mode – nothing showing, fast attack, Command
- Conscious size-up; people, apparatus, water supply
- Move deliberately

Portable radio communications:

- Be on correct channel and check it frequently
- Always Listen to your Radio – (Sop/Coms/2010)
- Interior Crews should always have a Radio – (Sop/Comms/2011)
- Consider keeping radio out of pocket –
- it's ineffective if it's not usable
- Determination of initial mode strategy
- Announce Mode And Strategy – (ops/sop/Incident command/2010)
- Is it the correct mode and strategy
- Crew understands mode of operation and strategy

- Frequently evaluate your mode and strategy
- Take a hydrant – bring in your own water supply

Attack orders:

- Share the plan with your crew
- Follow tactical objectives – all clear, under control, loss stopped
- Make rescue assignments or stage them
- Assign rescue units to engines or ladders if possible

Buddy system (ops/sop/Breathing Apparatus):

- Buddy check - use of turnouts
- Communication is the key
- One Goes Out – Both Go Out – (SOP/Breathing Apparatus)
- Practice – know what each other is doing
- Develop and implement your search plan Accountability
- Use it and communicate it
- Use Baco & Ba Entry Control Procedures – Accurately And In Right Location – Tallies Updated with current names
- Maintain BACO at all times
- Don't Lie About BA Activities – Make Them Accurate
- Individuals are responsible for their own accountability –
- Everyone is responsible for everyone else

Initial hose line management:

- Right size for the right fire in the right place
- Manpower at entry points to manage hose lines

Tactical priority management:

- Do not forget firefighter SAFETY
- Focus on and follow priorities – all clear, fire control and loss stopped

Interior access control:

- Do not abandon line
- Always consider secondary access
- Protect your access

Entry and exit management:

- Crew Members Must Be Within Vision, Voice Or Touch Contact With Each Other At All Times
- Use BACO Procedures
- Enter with buddy system and maintain it
- Be accountable for self and buddy
- Officers in charge should know position and function of crew Stage 12: supported on going attack

Activity/Behaviors

Attack Line Backup:

- Take a hydrant for your water supply
- Safety Is Always A Primary Concern
- Consider size and placement
- Where and who are you working for – accountability

Expanded support:

- Take the right truck – ladder vs. LT – don't take a knife to a gunfight
- Understand the importance of these support activities

Ventilation:

- correct mode and type of ventilation
- communication and coordination
- consider equipment needs
- safety is always a primary concern

Forcible entry:

- use of correct appliance – ladder or ALP
- forecast the need, think ahead, where is it required
- use of primary exits

Access provision:

- use of lighting
- have a secondary access
- consider possible victims

- apparatus placement

back up lines for personnel safety and protect egress points

Fire attack development

- Plan early
- Consider required resources
- Placement is the key
- Water, water and water
- Select the right tip

Loss control

- Salvage work
- Overhaul / Review (DRA)
- Ongoing loss control considerations

Integration of additional resources:

- Early sectorization
- Plan ahead
- Think Accountability, Safety and Customer Service

Ventilation:

- correct mode and type of ventilation
- communication and coordination
- consider equipment needs
- safety is always a primary concern

Forcible entry:

- use of correct appliance – ladder
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- apparatus placement
- back up lines for personnel safety and
- protect egress points

Fire attack development

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- Consider required resources
- Placement is the key
- Water, water and water
- Select the right tip

Loss control

- Salvage work
- Overhaul / Review (DRA)
- Ongoing loss control considerations

Integration of additional resources:

- Early sectorization
- Plan ahead
- Think Accountability, Safety and Customer Service

Safety Officer activity:

- Establish sector early
- Evaluate: life threatening situations – correct immediately – advise command; non-life-threatening situations – correct as noted overall incident plan with command
- Share plan with all crews on the scene
- Consider Incident Commander needs
- Re-evaluate decisions periodically…things change

Elapsed time management:

- Know how long we've been there
- Consider Crew Rotation
- Evaluate your current strategy
- What's My Strategy – Offensive or defensive – and compare to risk management plan

Command Expansion – Support Officer and Senior Advisor:

- Senior Commanders assume command
- Anticipate the need to expand the Incident Command System
- Don't wait until it's big
- Should be routinely established
- Expand to extent needed
- Get Commanders into key sectors when possible

Stage 14: Rehabilitation

ACTIVITY/BEHAVIORS

Command – sector coordination:

- Rehab prior to going home
- Rehab – then back to ready state for other assignments
- Set up early – rehab vehicle
- Get Stations to support operation
- Consider multiple sites
- Rehab customers
- Relocate when needed

Crew rotation management:

- First in, first out

Accountability "auditing":

- Crew should be intact and stay together

Rehabilitation management

- Rehab crews coming in
- Staged crews ready for reassignment
- Consider multiple sites
- Decommit/release crews
- Consider media location – not too close to rehab

Medical support:

- Conduct physical assessment of all members
- Rest them
- Treat them for any injuries

- Transport them if necessary

Stage 15: Rotation & Rehabilitation Support

ACTIVITY/BEHAVIORS

Command – Sectors – Officers in Charge:

- Look at severity of incident
- Consider amount of exposure to crews
- Be aware of members ability to cope
- Evaluate possible effect on members and citizens
- On-going, successful, pre-briefing is the key to minimizing debriefing needs

On-Scene Management:

- Focus on teamwork
- Rotate crews away from scene
- Keep an eye on each other
- Minimize Exposure
- Utilize post-incident Assessment to check in with everyone
- *Team contact can be made (as needed/desired):*

Stage 16: Assessment/Post Incident Review *Activity/Behaviors*

Level of Assessment:

- Done at the right level – immediate, tabletop, Station level, Department level
- The assessment event should communicate learning experiences
- A non-threatening atmosphere should be encouraged and maintained
- Conducted prior to appliances going available/timeliness is important
- Include accountability of actions
- Should involve stations officers and entire crews
- Should include customer's point of view
- Include initial dispatch
- Order of response and number of units
- Based on SOPs
- Include tactical/operational safety

- Pre-briefing/defusing/debriefing

Standard format:

- Raining for Assessments

Focus assessments on:

- Firefighter safety
- Survival
- Welfare
- Conditions
- Fire
- Structural safety

Actions:

- What was plan
- Support actions
- Companies' actions
- Response order and arrival
- Firefighters' actions

Outcome based on tactical benchmarks and customer service:

- Lessons (learned and reinforced)
- Action plan (for improvement)
- Focus on firefighter safety, survival and welfare

5.0 Safety As A Key Part Of Post Incident Reviews

The purpose of conducting safety Post Incident Reviews will emphasize firefighter safety by reinforcing safety behaviors, assessing the current level of safety (measure how we are doing) and identifying areas where safety improvements can be made. Post incident safety reviews can yield tremendous results and benefits to all fire department members. Individuals realizing they have ownership of the safety plan and other aspects of the incident gain the greatest benefits.

The post incident review should be conducted after all working incidents as soon after the event as is practical and the situation has been stabilized. Reviews should be conducted for single Station events as well as multi-Station events and should be conducted for the following:

1. Fire incidents
2. EMS (Emergency Medical Services) incidents
3. HazMat incidents
4. Special operations incidents
5. Training exercises
6. Any other event that may benefit DCD members

Generally, we will benefit most when we conduct post incident reviews at the incident scene. The information is fresh in everyone's mind and the site can be toured to reinforce learning. The post incident review should include all members involved with the operation.

Everyone can benefit from the experience of others. The DCDs Station Officers or whoever was command should facilitate the group through the review. Use visual references at the scene, as they can be quite helpful. Someone should keep notes. They can be referred to when listing lessons learned or reinforced, identifying any training needs or developing follow-up action plans. The focus of the review should be on firefighter safety and survival, and customer service. Reinforce all positive safety behaviors. Individual successes should not outweigh the safety of the overall operation or crew.

The post incident review should be concluded on a positive note. Single Station safety reviews conducted by Officers after incidents or training sessions can be used to chart a stations safety improvement or focus on areas in which a station may need improvement.

SAFETY CHECK LIST

Code 3 Safety Plan

- Crew intact
- Crew seated and belted in

- Where am I going?
- Blue lights/siren operating
- Not exceeding speed limits
- Focus on task of driving
- Stop at stop signs and red lights
- Accounted for all lanes before making turns and that motorists have yielded and stopped
- All traffic has stopped before entering intersections against red lights or stop signs
- In the opposing lane max speed does not exceed 20 MPH
- When in opposing lane at intersections, stop! Account that all motorists have yielded and are stopped before proceeding.

SAFETY CHECK LIST

Initial Arrival – Command Safety Plan

- Risk assessment – firefighter safety
- Portable radio is on and on correct channel
- Apparatus is placed to best advantage
- Water supply
- On-scene report
- Strategy – offensive vs. defensive
- Crews know the plan
- Operational mode – nothing showing, quick attack, command
- Accountability location is established and announced
- Assume command or staged

SAFETY CHECK LIST

Initial Arrival – Staging Safety Plan

- Level I staging – consider location
- Protect crew in violent settings
- Spot on a hydrant
- Be patient
- Announce direction of travel

- Use order model
- Recon from your position
- Know the strategy – when assignment is given
- Tell the crew what the plan is
- Use pedestrian speed (3-5mph) approaching the scene
- Level II staging – adequate location
- Assume staging sector role
- Report to staging sector
- Traffic control
- Proper radio channel

SAFETY CHECK LIST

Driving in Hot and Warm Zone Safety Plan

- Drive pedestrian speed (3-5mph)
- Engineer focus on task of driving
- Firefighter seat belted
- OIC focus on assignment
- Consider collapse profile
- Don’t become an exposure
- Consider overhead wires/obstructions
- Consider other responding units
- Watch out for firefighters

Protect the crew:

- Dismounting
- Operating around and near apparatus
- Consider use of warning lights

SAFETY CHECK LIST

Initial Attack Safety Plan

- Size up – develop a plan
- On-scene report
- Establish firefighter safety

- Slow down
- Gain composure and focus
- Operate in a specific mode
- Provide a water supply
- Interior crews must have a radio and listen to it
- Be on correct channel
- Follow order model
- Announce strategy and mode
- Crew understands operational mode and strategy
- Frequently evaluate mode and strategy
- Accountability system: use it and communicate it
- Passport: accurate, in use, in right place

Buddy system:

- Stay connected
- Buddy check of turnouts
- One goes out – both go out
- Buddy search plan
- Be accountable for self and buddy
- OIC knows your position and function

SAFETY CHECK LIST

Supported On-going Attack Safety Plan

- IC in place
- Hydrant for water supply

Attack line back-up:

- Size
- Placement
- Do I know who I'm working for –Accountability

Ventilation:

- PPV – Why?
- Vertical vent – Why?

- Horizontal vent – Why?
- Did I coordinate and communicate ventilation need with interior crews/command
- Ladder placement
- Two egress routes off the roof
- Do I have the right tools
- Buddy system
- Radio on – right channel – can I hear it

Forcible entry:

- Right tools
- Use primary exit points
- Lighting
- Secondary access
- Apparatus placement
- Back-up hose lines in place
- Planned early
- Tip size/type
- Water supply
- Progress reports
- Between stations
- Between sectors
- With command
- At completion of task
- Command updates Operations Room
- Elapsed time notification
- What is the strategy
- *Loss control:*
- Salvage work
- Overhaul

SAFETY CHECK LIST

On-Going Command Safety Plan

Risk Management:

- Announce strategy
- Is risk worth the benefit
- Risk a lot to save a lot
- Risk a little to save a little
- Risk nothing to save what's lost

Sectors:

- Sectorize early
- Sector objective assigned
- Assign Station to sectors or special function
- Tell sector officer what units are assigned
- Sector overload – span of control
- Command officer as sector officer

Safety:

- Establish sector early
- Life threatening situations
- Correct immediately
- Advise command
- Non-life threatening
- Correct as needed
- Review incident plan with command
- Re-evaluate plan periodically – things Change

Elapsed time:

- Evaluate current stage
- Evaluate strategy – compare to Risk Management Plan
- Command Expansion – Support Officer and Senior Advisor:
- Use the Mobile Incident Command Vehicle
- Senior Officers assume command
- Senior Officers assigned as Support officer
- Expand incident command system routinely to extent needed

- Senior Officers into key sector assignments
- Accountability expanded:
- Accountability sector established
- Accountability plan developed
- Resources to support sector/plan

SAFETY CHECK LIST

Support Safety Plan

- Assess incident/evaluate possible effect on members
- Pre-brief to determine debriefing needs
- Keep an eye on each other
- Rotate crews away from scene
- Focus on team work
- Minimize exposure
- Check in with each other at Post Incident Reviews

Standard Format:

Focus on:

- Firefighter safety/survival and welfare
- Fire conditions, structural safety
- What was plan
- Station actions
- Firefighter actions
- Support actions
- Outcome based on tactical benchmarks
- Lessons learned or reinforced
- Action plan for improvement
- Use safety checklist

SOP 9. OCCUPATIONAL SAFETY AND HEALTH PROGRAM

1) Scope:

This standard establishes an occupational safety and health program for the department. It was developed to:

a) Provide a safe working environment for the members of the department.
b) Work towards satisfying the requirements of *Standard on Fire Department Occupational Safety and Health Program*.

2) Purpose:

It shall be the purpose of the FRF to operate at the highest possible level of safety and health for all its members. To this end, the FRF shall:

a) Make every reasonable effort to provide a safe and healthy work environment.
b) Give primary consideration to the prevention and reduction of accidents, injuries, and occupational illnesses.
c) Take the appropriate corrective action to avoid repetitive occurrences of accidents.
d) Provide training, supervision, written procedures, program support, and review for all of its activities.

3) Responsibilities:

Safety and health is the responsibility of every member. Therefore, each member shall:

a) Cooperate, participate, and comply with all of the provisions of the occupational safety and health program.
b) Promptly report acts and conditions that are unsafe or unhealthy and that pose a threat either to members or to others.
c) Maintain a level of mental and physical fitness that enables the member to safely perform his assigned tasks.

Officer In charge shall be responsible for enforcing the requirements of the occupational safety and health program and for ensuring that each member under their command complies with the provisions of the occupational safety and health program.

OCCUPATIONAL HEALTH

Scope

There are moral, economic and legal reasons for the Fire and Rescue Force to take the Management of health and safety

Seriously.

1. Moral – As caring employers, the Force want to ensure the safety of their personnel at times.
   As professional bodies, the FRF aim to discharge their duties to the community to the highest possible standards at all times.
2. Economic - Good health and safety management is always cost effective. The time and money invested in safety is always outweighed by the savings in legal costs, compensation and the need to replace equipment. Also the good name and profile that will be protected for the Organization.
3. Legal – The Fire and Rescue Force, in common with other employers, have many legal duties in respect of safety. They must also co-operate with their employer in health and safety matters. ‘employer’ can, depending upon circumstances, mean anyone responsible for the work of others. ‘so far as is reasonably practicable’ means that the degree of risk in a particular activity can be balanced against the time, trouble, cost and physical difficulty of taking measures to avoid the risk. The greater the risk, the more likely it is that it is reasonable to go to very substantial expense, trouble and invention to reduce it.

LEVELS OF OPERATIONAL RISK MANAGEMENT

In order to provide an acceptable level of protection at operational incidents, FRF health and safety management must operate successfully at three levels - Strategic, Systematic and Dynamic.

1. **Strategic**

Strategic health and safety management is carried out by Fire and Rescue Force Strategic Authority. They demonstrate Management's commitment to safety by setting the Organization's health and safety guidelines, deciding priorities, providing resources, and promoting a positive health and safety culture.

1. Systematic

Systematic health and safety managements carried out by FRF. Initially, risk assessors identify the hazards likely to be encountered at the various types of operational incident and assess the level of risk presented by these hazards. FRF Command acts upon the results of the risk assessments and commissions the appropriate departments to develop and implement additional control measures. These could include, for example, information, personal protective equipment (PPE), equipment, systems of work, instruction, training and safety supervision.

2. Dynamic

Dynamic risk management is carried out by all personnel at an operational incident. The main responsibility lies with the Incident Commander who must identify the hazards, assess the risks, and then make professional judgments in order to use the available resources in such a way as to achieve an acceptable level of safety during work activities.

An important part of risk management at this level is the post incident review. This allows relevant information to be recorded and fed back into the Strategic decision making process via the Systematic level in order that safety standards can be constantly improved.

'Hazard' something with the potential to cause harm. This could be anything from a slippery domestic kitchen floor to a radiation leak from a nuclear reactor. `Risk' A measure of the likelihood that the harm from a particular hazard will occur, taking into account the possible severity of the harm.

The safe person concept

The overriding premise in safety management is to ensure that collective control measures are put into effect, because this safeguards everyone. An operational incident,

however, can be an inherently dangerous environment, where implementing collective controls may not be possible. The Operations Department must, therefore, ensure that the firefighter is safe. This approach is known as the ‘Safe Person Concept’.

There are two facets to this concept –organizational responsibility and Persona responsibility.

1. **Organizational Responsibility**

   The organization must provide the support necessary to ensure that personnel are able to remain safe in a hostile environment.

2. **Personal Responsibility**

   The individual must possess the necessary knowledge, skills and understanding to assist them in making professional Judgments about the appropriate use of available resources, in order to control the risks inherent in the unique circumstances of any emergency situation. Furthermore, the individual must acknowledge any limitations in their abilities that may have direct effect on their personal safety or that of others. Every operational firefighter must therefore be:

   - Competent to Perform Tasks Assigned
   - An effective member of a team
   - Self-Disciplined to work within accepted systems of work
   - Adaptable to changing circumstances
   - Vigilant for his own safety & that of Colleagues
   - Able to recognize his own abilities & limitations

Principles of risk assessment

All operational personnel are trained in hazard identification and risk assessment, this training will assist the Incident Commander develop his tactical approach to the incident.

Definition:

Hazard – something, which has the potential to cause harm.

Risk – the likelihood of harm arising from the hazard.

The Officer-in-Charge will carry out a dynamic risk assessment on arrival at an incident, the result of which will determine the;

1.2. Tactical Mode to be employed.

The principal elements of that assessment are termed “the operational risk assessment process” and include the following areas:

- To look for and identify hazards (hazard spotting)
- To decide who might be harmed and how
- To evaluate the risks arising from the incident
- To decide what precautions are necessary

1.3. These are explained as follows:

Hazard Evaluation.

When carrying out hazard identification, the Incident Commander may consider the

Following examples:

Slips and trips (uneven fire ground)
Fire (high temperature/burns/building decay)
Working at a height (roof
Work/scaffolding)

Manual handling (equipment/casualty handling)
Environmental considerations such as extremely high ambient temperatures Once the hazards have been identified, Consideration must be given to who might Be affected by those hazards.

1.Who will be exposed to the

Hazards identified:

Operational Firefighters
Other Emergency Services
Works Staff

Having identified the hazards and the People who may be affected, the Incident Commander must evaluate the degree of Risk as to whether those persons will come to any harm.

2.Evaluate the risk:

This task is a personal judgment of the Incident Commander who must consider certain questions when assessing the severity of the hazard and the likelihood of occurrence.

What operational intelligence is Available? e.g. plans, on scene specialists
What tasks need to be carried out?
What additional hazards are associated with carrying out these tasks?
What resources are available?
The Incident Commander having carried out the assessment must now consider the methods of controlling the risk.

3. Risk Control:

The Incident Commander may consider one or more of the following control methods:

Remove the hazard
Reduce the risk
Prevent access to the hazard
Reduce exposure to the hazard
Reduce the number of personnel exposed to the hazard
Issue personal protection equipment
Additional resources required Dynamic Risk Assessment Introduction

Dynamic management of risk

Dynamic management of risk is the continuous assessment and control of risk in the rapidly changing circumstances of an operational incident. The overall responsibility for this lies with the Incident Commander. He must ensure that safe practices are followed and that, so far as is reasonable practicable under the circumstances, risks are eliminated or, if not, reduced to the minimum Commensurate with the needs of the task.

However, because personnel may be working in small autonomous teams, everyone must be constantly aware of their own safety as well as that of their colleagues and others who may be affected by the incident or work activity. It must be clearly understood that all ranks have the authority, as well as the duty, to take immediate action in the interest of safety. This is a fundamental part of the safe person concept.
Although dynamic management of risk must be continuous throughout the incident, different matters will have to be considered as the incident progresses.

The term Dynamic Risk Assessment (DRA) is commonly used to:

Describe a process of risk assessment being carried out in a changing environment, where what is being assessed is developing
This is further complicated for the OIC in that, often, rescues have to be performed, exposures protected and stop jets (water) placed before a complete appreciation of all material facts has been obtained.

Nevertheless it is essential that an effective risk assessment be carried out at any scene of operations.

By passing the tactical mode to Operations Room (Control) this will document the actions taken of the initial assessment.

A tactical plan will have been initiated on the basis of a Dynamic Risk assessment.
Using professional judgment, the Incident Commander will have decided on a Tactical Mode from the information immediately available to him.

Although the dynamic management of risk is continuous throughout the incident, the focus of operational activity will change as the incident evolves. It is therefore useful to consider the process during three separate stages of an incident:

- The Initial Stage
- The Development Stage
- The Closing Stage

1. Initial stage of incident

- Upon the arrival of the initial attendance the first task of the Incident Commander must be to gather information, evaluate the situation and then apply professional Judgment to decide the most appropriate course of action. Hazards must be identified and the risks to firefighters, the public and the environment considered.

The benefits of proceeding with a task must be weighed carefully against the risks.
It is important to think before you act rather than act before you think. The consequences of a wrong decision at this stage may be irreversible. The thought process must begin when the first details are received from the Operations Control Centre during mobilization and should take into account any operational intelligence which is carried on appliances. It is important, however, not to place too much reliance on such information until its accuracy has been confirmed at the incident.
Although there are usually time constraints on decision making in an operational Environment, this should not be used as a reason for accepting the unacceptable. The maxim highlighted below demonstrates the correct attitude towards safety:

"We may risk our lives a lot, in a highly calculated manner, to protect Savable lives.

We may risk our lives a little, in a highly calculated manner, to protect Savable property.

We will not risk our lives at all for lives or property that are already lost."

If, after implementing all available control measures, the cost of proceeding with a task still outweighs the benefit, DO NOT PROCEED, but consider viable Alternatives.

There are 6 steps to the initial assessment of risk:

1. Evaluate the situation, tasks and persons at risk
2. Introduce and announce tactical mode
3. Select safe systems of work
4. Assess the chosen systems of work
5. Introduce additional control measures if required
6. Re-assess systems of work and additional control measures

2.3. Step 1

Evaluate the situation, tasks and persons at risk On the arrival at an incident the OIC must gather information, evaluate the situation and then apply professional judgment to decide the most appropriate course of action.

-
- Hazards must be identified and the associated risks to firefighters, the public and the environment considered.
- In order to identify hazards the OSC will initially need to consider:
- Operational intelligence information available
  - The nature of the tasks to be carried out
  - The hazards involved in carrying out the tasks
  - The risks involved to: firefighters, other emergency service personnel, the public and the environment
  - The resources that are available e.g. experienced personnel, appliances and specialist advice.

2. Step 2 Tactical Modes

The 'Tactical Mode' procedure provides a simple method whereby the Incident Commander, having carried out an initial assessment of the incident and having decided whether or not it is safe to commit personnel into the hazard area,

- Can announce his decision to all personnel on the incident ground, as well as those en-route.
- And at the same time ensure that a record is maintained of the outcome of the risk assessment.

The term 'Tactical Mode' describes the method of operation proposed or in use at the incident, there are two possible '**Tactical Modes'**.

2. Offensive Mode may apply to a

Sector, and/or the entire incident. This is where the operation is being tackled aggressively. The incident commander will have established that the potential benefits

outweighs the identified risks, so the Incident Commander will be committing crews into a relatively hazardous area, supported by appropriate procedures and training.

'**Offensive Mode'** is the normal mode of operation used at for example: to fight the fire aggressively, to carry out rescues, to close down machinery. This will often mean committing crews into the building.

3. Defensive Mode

This mode may apply to a sector, and/or the entire incident. This is where the operation is being fought with a defensive approach. In defensive mode, the identified risks outweighs the potential benefits, so no matter how many additional control measures are put into the place the risks are too great.

In these circumstances the Incident Commander would announce Defensive Mode, fight the fire with ground monitor jets and aerial jets, and protect exposure risks and adjoining property without committing crews into hazard area.

The offensive or defensive mode should be emphasized to Fire and Rescue Operations Room (Control)

4. Adopting a Tactical Mode When Sectors in Use

When the incident has been divided into sectors the Incident Commander will retain responsibility for the Tactical Mode at all times.

There will be occasions when sector commanders wish to change the Tactical Mode in their sector from Offensive to Defensive quickly.

For example; they may detect signs of collapse or obtain information about some previously unknown danger. In such circumstances, they must take the necessary action for the safety of the crews and advise the Incident Commander of the developments.

However, if, the Sector Commander wishes to commit personnel internally in Offensive Mode when the prevailing mode is Defensive, the permission of the Incident Commander must be sought and no change made until it is granted.

Sector Commanders must be involved in any intervention by the Incident Commander to change the Tactical Mode.

Sector Commanders may then implement the change effectively and ensure that personnel under their command are aware of the prevailing Tactical Mode. However, it is more usual for the initiative to change mode to come from the Sector Commander.

5. Tactical Mode summary:

Situation, what am I faced with?
Tactics, what is my plan?
Assistance, what do I need?
Needs, safety needs for crew
Deploy and Supervise
Review, is my plan working?
Update, as situation changes
Never, commit crews without risk assessment

6. Step 3 Select safe systems of work

The Incident Commander must consider the options available in terms of standard operating procedures. He will need to consider the possible systems of work and choose the most appropriate for the situation.

The starting point for consideration must be procedures that have been agreed in preplanning and training and ensuring those personnel available at the incident have sufficient competence to carry out the tasks safely.

If YES proceed with the tasks after ensuring that:
Goals, both individual and team are understood
Responsibilities have been clearly allocated
Safety measures and procedures are understood
If NO then go back a step

Step 5 Introduce additional control measures

Incident Commanders' will need to eliminate, or reduce, any remaining risks to an acceptable level, if possible, by introducing additional control measures, such as:

Use of specialist equipment

Use of Safety Officer(s)/ Sector Commander
Use of additional Personnel Protective Equipment other than full fire kit e.g. BA.

7. Step 6 Re-assess systems of work and additional control measures

Even when safe systems of work are in place, there may well be residual risks. Where these risks remain, the Incident Commander should consider if the benefit gained from carrying out the tasks against the possible consequences if the risks are realized:
If the benefits outweigh the risks proceed with the tasks.

- If the risks outweigh the benefit do NOT proceed with the tasks, but consider viable alternatives.
- If the Tactical Mode has changed inform all personnel at the Incident.

3. Development Stage of an Incident

If an incident develops to the extent that sectors are designated, the Incident Commander will delegate responsibilities to Support Staff. They will be responsible for the health and safety of all personnel within their sector/area.

As the incident develops changing circumstances may make the original course of action inappropriate, for example:
Fire fighting tactics may change from
defensive to offensive.
New hazards and their associated risks
may arise e.g. the effects of fire on a
building Stability.
The Calling of Support services and special Equipment, to include the air support and air rescue units.

This must be done through the chain of command, i.e. Commander for Air Rescue, who will contact the Operations Room for mobilization.
Existing hazards may present different risks, fire spread to storage area containing gas cylinders.
Personnel may become fatigued.

Both Incident and Support Staff, therefore, need to manage safety by constantly monitoring the situation and reviewing the effectiveness of existing control measures.

4. Incident Objectives

At any incident, as part of his evaluation the Incident Commander's initial plan must consider the following:

Saving and protecting those in danger
Ensuring the safety of emergency personnel
Protecting property
Protecting the environment.

5. Command Principles

In order to successfully achieve these objectives, the Incident Commander must apply the following Key Elements of Incident Command at all incidents:

Only one Incident Commander
Management of operational plan
Is there enough manpower and equipment to achieve the task
Establishing and Maintaining safe zones
Briefing and Informing personnel about their duties and responsibilities
Managing personnel
Establishing effective communications and spans of control
Liaison with other agencies and the Public.

6. The Incident Commander

The Incident Commander will under normal circumstances be the person in charge of the first attending appliance. However a more senior officer may be mobilized to larger or more complex issues.

A formal handing over of authority will be undertaken with the more senior rank saying," I am taking Charge".

A senior ranking officer may decide not to take overall command at incidents which

are being managed well, but instead perform as part of the Incident Management Team, as a safety Officer or as an Observer.

If a senior ranking officer does assume Command then the person in charge of the first attendance will become part of the Incident Management Team.

During the handover information must be handed over swiftly, but it should be relevant and contain:

Objectives achieved and outstanding to solve the incident
Tactical mode in use
Hazards identified and outline of Risk Assessment
Existing and Proposed Deployment
Resources Available or Requested
Sent Messages

7. Cordons

When considering control of the incident ground, the Incident Commander will need to maintain the safety of emergency crews and members of the public. Cordons may be employed as an effective method of controlling resources and maintaining safety. Under normal circumstances there will be at least two cordons in operation, inner and outer.

1. Inner cordons are used to control

Access to the immediate scene of operations. Access to the area controlled by an inner cordon, which by definition is a high hazard zone, should be restricted to the minimum numbers required for work to be undertaken safely and effectively.

Personnel should only enter when they have received a full briefing and allocated specific tasks.

Access to the inner cordon area must be managed at all times and personnel will only be permitted to enter the inner cordon area when wearing the appropriate PPE.

At larger multi-agency incidents management of the inner cordon area
remains the responsibility of the fire service.

2. Outer Cordons prevent access by the public into an area used by the FRF, and other services, for support activities. The police will control outer cordons.

8. Briefing

Effective communication and information sharing is imperative for ensuring satisfactory management, and operation of an incident. An Incident Commander will as far as practically possible inform Sector Commanders and firefighters the nature of any hazard or significant features, the extent of severity of hazards and degree of associated risk, known or suspected casualty locations, current tactics or changes to the tactical plan and any other factors which might have a significant influence on the safety or efficiency of operations.

All relevant information must be transmitted to Fire and Rescue Control as soon as possible, to ensure officers enroot to the incident are kept fully briefed of developments.

9. Spans of Control

At a serious incident, during stressful and rapidly changing situations, an Incident Commander has to deal effectively with many people and large amounts of information. Limit direct lines of communication to operation room in early stages of incident To prevent the possibility of 'Information Overload' and ensure more effective control, the Incident Command System is based on a framework which ensures manageable 'Spans of Control'. This provides the Incident Commander with the means to find a way through the complexity of the emergency situation and assists with the development of an effective and appropriate Incident ground structure.

The concept of '**span of control'** is fundamental to this basic structure.
Definition The Span of Control is the number of lines of relatively constant communication that must be maintained.

The span of control for tactical roles should ideally be limited to five lines of direct communication, to ensure that commanders do not become overburdened. (The span of control for logistical roles e.g. the Command Support Officer may be wider).

In a rapidly developing or complex incident the span of control may need to be as small as 2-3 lines. In a stable situation, 6-7 lines may be acceptable.

10. The Command Team and Structure

The command Team will be led by the Incident Commander and will be split into Operations and support. Operations is the application of the command and control procedures and tactics to resolve the incident; the Support function provides the logistical needs to ensure the resource requirements of the incident are met i.e. water supplies, equipment, welfare, personnel, incident ground communications.

The Command team will consist of:

1. The Command Team

The team will compromise of one or more of the following:

2. **Incident Commander** – Ultimately responsible for the overall management of the incident and will focus on command and control, deployment of resources, tactical planning and health and safety.

3. **Operations Commander(s)** -Appointed at larger incidents to assist the Incident Commander. Primarily responsible for tactical co-ordination of Operational Sectors and safety. Must not become directly involved in support activities which are the prerogative of command support.

4. Sector Commanders - Appointed to control a physical area of the incident ground or an area of support, for example water supplies or breathing apparatus.

Sector Commanders will assume command of their sector (generally adopting the sector designation as their fire ground radio call sign) and are predominantly responsible within their designated sector for dynamic risk assessment, operational or functional tasks (as appropriate) and safety.

5. Command Support Officer -

Responsible for onsite logistical support and co-ordination of support sectors.

Reports directly to the Incident Commander. Must not become directly involved in operational activities which are the prerogative of the Operations commander (where appointed) or the Incident Commander.

9.5. At small to medium size incidents, the Incident Commander should nominate a junior officer or firefighter as Command Support, who will operate from the designated contact point.

6. Command support should initially

Provide, and maintain, radio communications between defense control and the Incident Commander and may also be allocated the following responsibilities;

To act as first contact point for all attending appliances and officers and to maintain a physical record of resources in attendance at the incident.

To assist the incident commander in liaison with other agencies.

To direct attending appliances to an operational location or marshalling area as instructed by the Incident Commander and to record the status of all resources.

7 The Role of Safety Officer

A Safety officer may be designated at any time during an Incident by either the Incident Commander or sector commander, as appropriate. This person should be suitably qualified and of appropriate experience as the role will require a constant review of the overall Health & Safety in and around the incident, in addition the Safety Officer for the incident, may be responsible for the following:

- To survey operational sectors, identifying hazards, and advising the sector commander as appropriate.
- To liaise with other Sector Safety Officer
- to support and exchange information.
- To confirm the validity of the initial risk assessment and report back to the incident commander.

To collate and record any analytical Risk Assessment.

To act as an extra set of Eyes and ears to the sector commanders in monitoring the safety of personnel.

First or Initial Tactical Operations

10. Sectorisation

Sectorisation is central to the principle of Limiting spans of control and provides. Everyone on the Incident ground with a clear line of reporting. Sectorisation should be introduced when the demands of an incident make it imperative that responsibility and authority is delegated in order to ensure appropriate command and safety monitoring of all activities.

Even if it is possible for the Incident Commander to oversee all operations, the need to sectors will arise if there is so much going on that the Incident Commander risks being distracted and unable to give sufficient attention to each task. This would indicate the Incident Commanders span of control is too great.

If an Incident Commander's span of control is greater than about 5 lines of direct Communication at a working incident, it is possible that performance will be adversely affected.

The creation of sectors will only be done where deemed necessary by and on the express instructions of the Incident Commander. The method of operational sectorisation can vary provided the method used is consistent and clearly understood by all personnel.

A standard incident should be sectaries by exposures by numbering in a clockwise direction from the main entrance (or initial attack point).

- Sector Commanders should physically
- Stay in their sector.
    - Sector Commanders provide direct and visible leadership at each sector and need to remain directly accessible to the Crew Commanders for whom they are responsible.

- Deviations from proper procedure would include Sector Commanders visiting the Command unit, or touring the incident
- To supervise operations in another sector whilst neglecting their own. In cases where it is essential that a crew or the direction of the Incident Commander for any reason, they must be replaced by someone with appropriate competence and authority to maintain continuity of command.
- The incident Commander can establish other non-operational sectors according to need in order to control and contain the incident like the decontamination sector, water supply sector. etc.

11. Closing stage of an incident

Two of the key activities involved in the closing stages of an incident are:

- Maintaining Control
- Incident debrief

1. Maintaining Control

The process of task and hazard identification, assessment of risk, planning, organization, control, monitoring and review, must continue until the last fire appliance leaves the incident ground.

There are usually fewer reasons for accepting risks at this stage, because there are fewer benefits to be gained from the tasks being carried out. Sector Commanders should therefore have no hesitation in halting work in order to maintain safety at this stage of an incident.

3. Incident Debrief

Following an incident any significant information gained, or lessons learned, must be fed back to Fire Rescue Management as further action, maybe required, for example:

- Relating to existing operational risk information, personal protective equipment,
- The provision and use of equipment, other systems of work, instruction, training, and levels of safety supervision etc.

- It is important to highlight any unconventional system or procedure used which was successful or made the working environment safe.

12. Operating Within 'The Multi-Agency'

Bronze, Silver and Gold Command System. Effective Command Planning Bronze/Operations can best be described as tasks that are carried out on the incident ground, using prescribed techniques and procedures in accordance with the tactical plan.

These tasks are generally based on standard civil defense operating procedures and techniques, managed on a routine basis by sector commanders.

Bronze level command will be the first level in operation. The role of the Incident Commander will be to:

- Assess the incident, hazards risks and resources required
- Priorities objectives
    - Develop and initiate plans based on dynamic risk assessment and operational procedures
- Communicate and explain the plan
- Evaluate the plans effectiveness
- Coordinate with other support agencies in fire sector.

If the incident becomes multi-agency and other services are operating their command system at a similar level then the civil defense Incident Commander, at that time, would assume the role of "Fire Silver" at the scene or Incident.

This function would be performed by a Major or Captain ranking officer. Sector Commanders Lieutenants or Sergeants would then become fire bronze until relieved by more senior officer.

Silver/ Tactics can be summarized as the deployment of personnel and equipment on the incident ground in a manner which will achieve the strategic aims of the Incident Commander.

Tactics are almost invariably based on established operational procedures.

The role of the Silver Commander is to manage the incident and ensure there are sufficient resources to execute his tactical plan of operation.

When taking over an incident the Silver Commander must formally state" I am taking over" He must ensure

Sectors know who is in charge
Inform FRF who is in charge and tactical mode
Establish a command team
Review action plan
Ensure there are resources, or request more
Review the efficiency of the command structure
Evaluate the tactical plan against all available information

- Carry out risk against benefits analysis.
- Maintain effective liaison with other agencies and Gold Command, if being utilize

13. Gold/Strategic

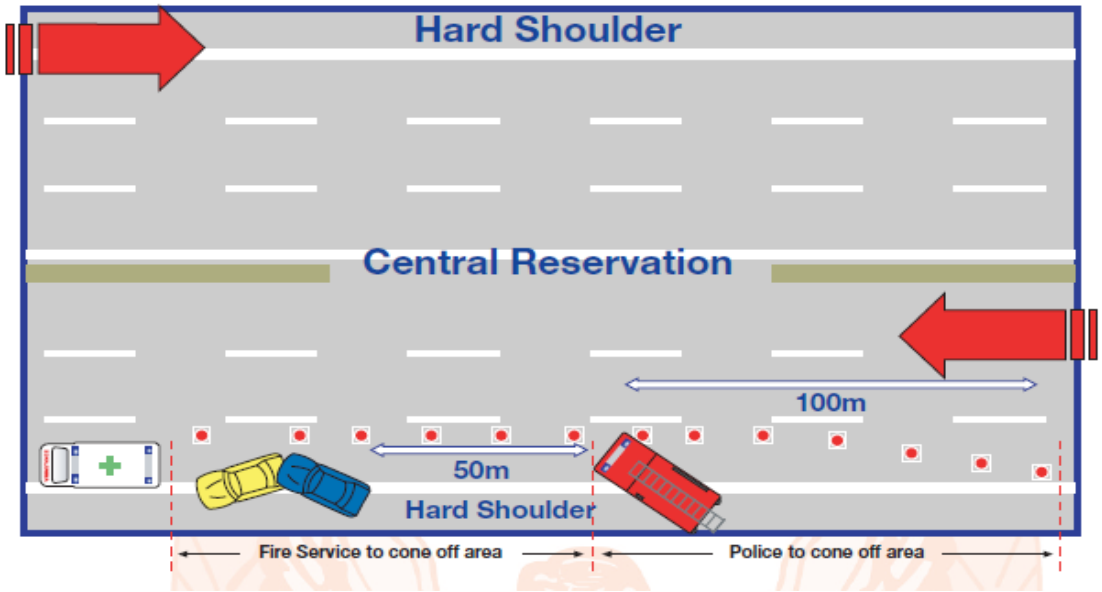
Is the planning and directing of the organization to meet its overall objectives. The strategic/gold level of responsibility includes the formulation of systems to manage risks of certain incident types, in seeking to achieve these objectives a higher level of Management
Would be established.

Most incidents can be managed by either silver or bronze levels of command; however if the level of decision maker or authority exceeds what could be reasonably expected by a Tactical commander, then a gold strategic level will need to be initiated. Gold is the most senior of levels and will rarely be used by the Fire section alone. It is likely to be initiated for a multi-agency approach to a major incident. It may involve political decisions which one organization cannot resolve alone. An effective gold command will:

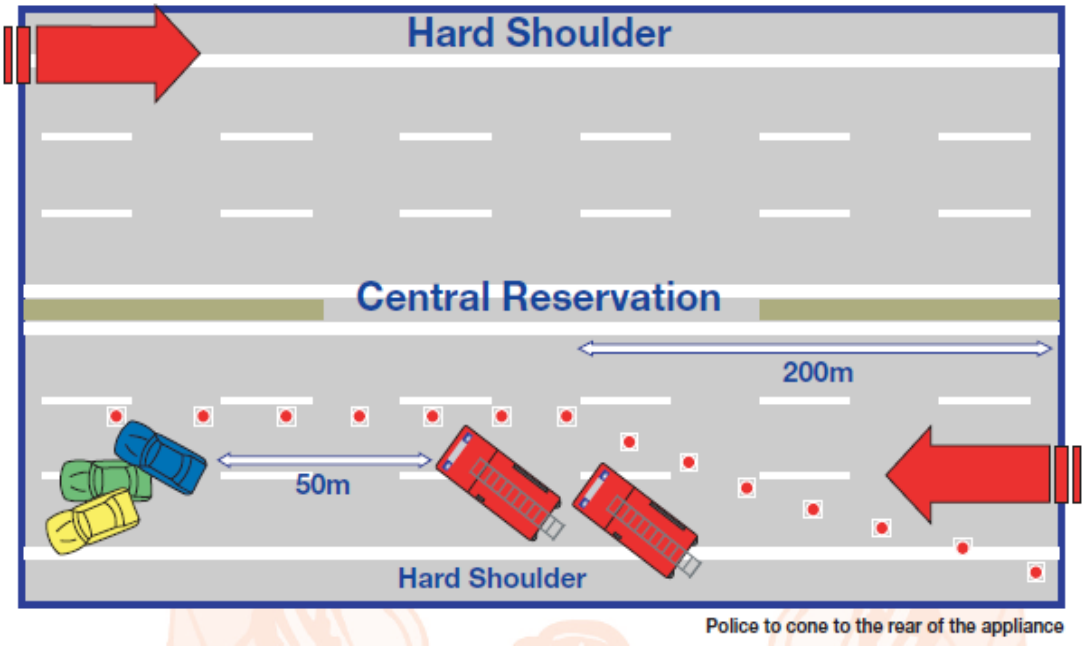
- Be located in a dedicated facility remote from the incident.
- Establish an incident management framework.
- Establish a policy in which Silver Commanders will work.
- Determine and review strategic objectives.
- Prioritize Silver Commanders requests.

- Ensure there is long time resourcing and expertise available.
- Co-ordinate objectives with other agency Gold Commanders

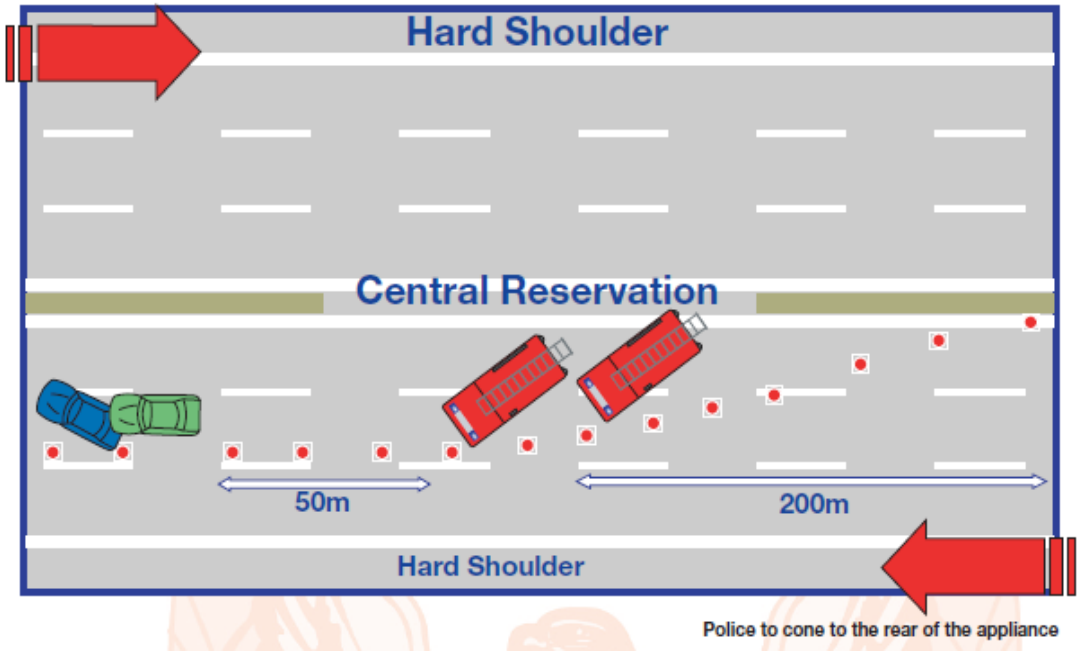
1. **Fend Off Position and Cone Distances: LANE 1 incidents**



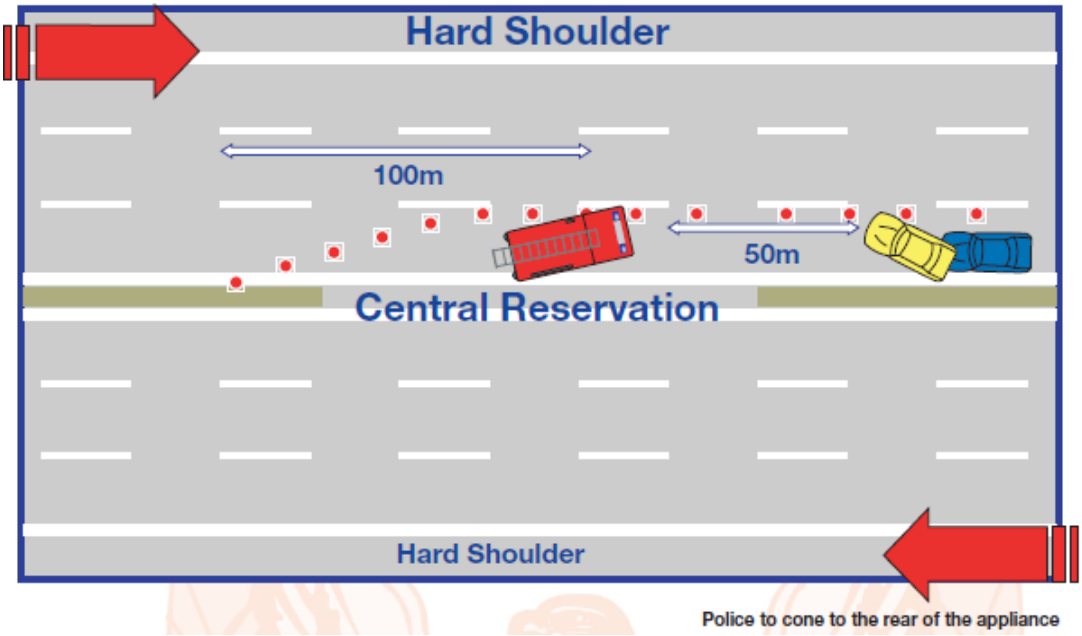
2. **Fend Off Position and Cone Distances: Lane 1 & 2**



3. **Fend Off Position and Cone Distances: Lanes 2 & 3**



4. **Fend Off Position and Cone Distances: Lanes 3**



SOP 10.HOSPITALS AND CLINICS

1.0 Introduction

Hospitals and Clinics are considered as a High Life Risk and has a varied Hazard range with chemicals, Bio hazards, Possible Electro-Magnetic Risk and Radiation Hazards. Examples of Hazard Signage possible found in Hospitals and Clinics

Any Incidents involving Hospitals and Clinics must be dealt with in a controlled and systematic manner, with disciplined pre-arranged procedures carefully followed and adhered to.

These High-Risk facilities should be identified within a station area and regular visits made to:

- Familiarise officers and crews with Site and buildings layout and nature of Risk.
- Identify any specific Risk or Hazard.
- Look at the facility's Emergency Plan and see how and where the FRF personnel will work with it, or amend it as required.
- Identify Water supplies, Water Inlets, and / or F/F agent inlets.

Examine landing valves and F/F equipment available inside the building and ensure they are compatible

- Any Haz-Mat requirements
- The Optimum route and vehicle parking and staging areas

2.0. Initial Calls to Hospitals & Clinics

On receipt of an emergency call to such a facility, Operations Room Staff must get as much detailed information as possible from the caller as to the nature of the incident and the Life Risk involved. This may be done after the initial mobilization of the station, officers and crews, so as not to affect the attendance times. The more information available at the initial stages of such an Emergency can play a vital part in the success for Firefighting and Rescue efforts. It will also assist the Officer in Charge or Incident Commander to identify the Risks that may be involved within the facilities and the early actions needed to protect against them. Early recognition of risks and prompt careful actions can ultimately save lives and lead to a tactically controlled approach at the Incident.

3.0. Initial Attendance

The first responding Officer and crew must contact a senior warden or 'on-duty' In-charge who has up-to-date knowledge and understanding of the Incident.

This will assist in the initial 'Size-Up' or assessment of the situation and to consider the following:

- DRA – Dynamic Risk Assessment
- Preparation of BA crews and entry teams
- Establishing of BACO entry control
- Prepare for Urgent Rescues
- Assess the Firefighting requirements
- Direct the crews to take the correct equipment inside the building
- Set Up water supplies and connect to rising mains and / or Firefighting inlets
- Communications with entry teams
- Assess the manpower requirements
- Appoint Command Support and Sector Commanders
- Establish Cordons
- Police to move public away from scene
- Update Operations Room and / or Senior Officers
- Designate a support officer – Command Support or Sector Commander to organize a staging area for equipment and / or manpower

- Consider requesting the BA vehicles for additional BA support and if required additional crews for protracted firefighting & Rescue operations
- Liaise and discuss with medical teams where the 'TRIAGE' areas are to be set up, bearing in mind that some patients / casualties may possible be bed ridden and on Oxygen, so would need special protected areas.
- Re-assess the situation and continue with DRA amending attack as necessary
- As an Incident Commander you must always be kept informed as to the development of any fire situation or intensifying of the incident, especially with regards to possible Haz-Mat or Haz-Chem materials or substances.

These are very prominent in Hospitals and Clinics for most every day use on wards and treatment rooms, therefore, perhaps not especially stored away in protective stores or cabinets. If these materials or substances are involved you must initiate the Haz-Mat procedure (see Haz-Mat SOP).

Always get updated and additional information from the fire warden or Hospital administrator, but remember you will get this information from OUTSIDE the inner cordon or 'Hot Zone' and preferably at the Mobile Incident Command Vehicle, which should always be mobilized early to such an incident.

There will be available an Emergency Plan and supporting Maps, technical data and any Haz-Mat or special hazards. This will be either in the security room or with the head of security, fire warden or hospital administrator. You should ask for this document soon after arrival so as to assist with your size-up. Do not forget to ask which lift is the firefighter lift and for a key, if any.

4.0. Crew responsibility and tactics.

Ensure you are wearing FULL PPE with gloves and BA. Report to the point of entry and wait for deployment with the following tools & equipment:

- Take one or two lengths of 45mm delivery hose

- Always take a ‘hand-controlled’ branch with you, especially when working with the buildings internal firefighting system and / or risers

- Take a line for general purpose or rescue
- Rescue breathing apparatus sets for members of the public if available
- Radio or Communications equipment

If going to upper floors, use either the stairs or the firefighters lift, this will be either pointed out to you or it will have a ‘Fireman’s Switch’ on it.

Note: Establish a ‘bridgehead’ or staging area, so as not to go to the fire floor immediately and until there is some controls in place, i.e. jet / spray protection, BA etc.

5.0. Establish Control

Only when you get confirmation from the Incident Commander that you may consider positive or forced ventilation, in order to reduce smoke levels and remove heat. The Incident Commander will give instructions that the operations have ended and casualties / Patients may be allowed to re-enter the buildings and the Hospital or Clinic be returned to normal as soon as Possible and if practicable

SOP 11.PRE-INCIDENT PLANNING

1 Scope

This SOP covers the procedures for pre-incident planning.

2 Definitions

Pre-incident Planning Data Sheet (PPDS) – A sheet containing information about fire hazards, Layout, access, utilities and fire protection features that may be useful during an incident

3 Procedures

- Fire Fighters should be familiar with the general characteristics and layout of their station Territory and their equipment and Procedures they are expected to use .
- Officers should have a detailed knowledge of their territory of operation and/or have access to detailed information about that area.
- Officers should have a detailed information and knowledge, or immediate access to information about the strategy and tactics to be used at the type of incidents they could be reasonably be expected to encounter. All fire fighting vehicles should carry a map or street directory for the area, and information (e.g. pre-incident planning data sheet), about significant fire risks in their area.
- Pre-incident plans shall be developed in all levels and maintained to cater for large scale incidents
- At a regional level, guidance and support shall be provided for the development of pre incident Plans.

SOP 12. ALARM AND DISPATCH

1 Scope

This SOP covers the procedures for receipt and dispatch of all emergency calls.

2. Procedures

Upon receiving any emergency call, the **Fire and Rescue Services** control room member receiving the call of emergency has to accurately record all details of the incident in particular:

- Type of incident
- Location of incident
- Reporter/caller's details and phone number
- If the person receiving a call is not a control room operator, or the call is of a type or is from a location not covered by the **Fire and Rescue Force** they should pass it on immediately to the Control Room attendant.
- Unless SOP's specify otherwise, the Control room receiving an emergency Call relevant to their area is immediately to dispatch the minimum Response.

SOP 13. EN-ROUTE PROCEDURE

1 Scope

This SOP covers the procedures to be followed when responding or proceeding to a fire or incident.

Definitions

Respond – Means to drive urgently, but safely, using lights and sirens when appropriate.

Proceed – Means to drive safely, observing all normal road rules and without the use of lights and sirens.

2. Procedures

i. Drivers are to observe the requirements of the National Road Traffic Act and Regulations at all times.

ii. All fire fighters shall travel inside an enclosed sector compartment while en-route to an incident.

iii. Personal protective equipment (**PPE**) appropriate to the type of incident is to be worn.

Note: helmet and gloves need to be worn while driving or traveling in the vehicle.

iv. Persons are to be seated with seatbelts worn and correctly adjusted.

v. Normally vehicle of the initial response are to respond using lights and Sirens.

vi. When responding to a fire or other incident, drivers of vehicles are to come to a complete stop and not proceed until it is confirmed as safe, if they encounter.

a) Red traffic light or a “stop sign”
b) Blind intersection, intersections where traffic in some lanes is not visible, and intersections where the vehicle does not have the right of way.

vii. When responding to a fire or other incident, drivers of vehicles are to slow down to a speed which will allow then to quickly stop and avoid a collision, and stop whenever it is not Confirmed as safe, if they encounter:

- A “Give way” sign
- Unguarded railway crossing

- Pedestrian crossing and when busses are setting down passengers.
- The vicinity of school's when students are arriving or leaving.

viii. Unless specifically asked to respond by the Incident Commander or other person delegated with that authority, vehicles called out later to assist, are to proceed, not respond, to the Incident.

ix. Vehicles traveling to distant incidents as part of an emergency convoy close intersections adhere to all procedures as set out above. No vehicle is permitted to be permitted to close intersections for the other vehicles.

x. Members driving private vehicles are to observe all normal road rules at all times.

SOP 14. APPROACH AND SIZE UP

- **Scope**

This SOP covers the procedures to be adopted during approach and arrival at an incident.

Procedure

i. Incidents are to be approached from the safest known available direction, taking into consideration the type of incident access and egress routes, wind direction and strength, slope and surface of terrain and specific hazards.

ii. The Officer in charge of each sector is to brief their sectors with known details of the call, known conditions (e.g. weather), known or likely hazards and appropriate precautions, Preferable while approaching the incident.

iii. The Officer of the first arriving sector's is to assume control **(become the Incident Commander),** size up the overall situation, report the details by radio to Control room, and request any Assistance. Calls for further assistance may be made while still approaching the scene if needed.

iv. Unless instructed otherwise by the Control room, the officers of the later arriving sectors are to call the Incident Commander (call sign: Name of incident Control") for further instructions When approaching the incident. **Note:** In some cases, these officers may be requested to Report to the Incident Commander in person on arrival, or to report to a staging area.

Size – up is to take into consideration:

i. Safety of operations
ii. Size of incident
iii. Type of incident
iv. Probable development
v. Specific hazards
vi. Support needed
vii. Identification of safe refuge areas
viii. The Incident Commander is to determine the control objectives and Strategies for the incident. The Incident Commander is to work of each Sector to out an overall plan to attack and pass on details of it to any subordinate officers of sectors. Tasks are to be allocated by the office their sector members in accordance with that overall plan of attack.

SOP 15.UNIT PLACEMENT AND STAGING

1 Scope

This SOP covers the placement of vehicles and staging of vehicles at an incident.

Definitions

- **Staging area** – A suitable location in which vehicles, equipment and personnel can be marshaled prior to being given specific tasks at an Incident .They are designed to eliminate Congestion at the incident.
- **Staging Areas**

  The Incident Commander or a person delegated by him/her may establish staging area(s) to prevent congestion on the fire ground from large numbers of incoming vehicles. A staging officer may be appointed to co-ordinate activities at the Staging area. Vehicles will be called to the fire ground from the staging area(s) when and as needed.

Note: Once a staging area is established, a record keeping system should be brought into use to account for vehicle and equipment at the scene.

- **Assembly Area/s**
    1. The incident commander or a person delegated by him/her may establish an assembly area/s for the rest, replenishment, briefing and debriefing of personnel and resources at larger incidents.
    2. Members proceeding to incidents separately from their unit (e.g. in their own car), are to park in a safe location and report to the officer in charge of their unit or a staging area (if established) for briefing before commencing activities on the fire ground.

SOP 16.MINIMUM FORCE STANDARDS

Scope

This standard establishes minimum standards of performance for Fire and Rescue Force. It was promulgated to maintain the proficiency of service by establishing a program for the annual evaluation of Force-level skills.

Purpose

This standard establishes a series of evaluations for fire and rescue operations. These evaluations simulate tasks commonly performed during routine incidents. Each fire station is required to be able to perform all of these evolutions within the allotted time frame. Force shall be evaluated in December of each year to ensure that the Force can meet the prescribed minimum standards.

Responsibilities:

a) Operation officer: Each officer shall train with his respective stations on at least a weekly basis. Officer is responsible for the performance levels of his assigned stations, and his/her stations shall be capable of successfully performing all of the evolutions contained within this standard.

b) The station incharge shall evaluate annually on these minimum FRF standards

and shall forward the results of these evaluations to the DFO. The station Incharge shall assist any station whose performance level is below standard and shall schedule stations for re-evaluation when necessary.

c) Training officer: The Training Officer shall provide training aides and materials available as well as technical assistance to assist Force in maintaining their proficiency in fire and rescue operations.

Evaluation Procedures

a. Stations evaluations are based on performance and time standards.

i. The Force has established a maximum time limit to properly complete each evolution.

ii. Performance is measured by observing the correct procedures and techniques established by the FRF.

iii. Safety in all phases of an evolution is a prime consideration and shall not be compromised for speed.

iv. If possible, the annual evaluation will take place at a site selected to simulate realistic fire ground conditions, such as abandoned buildings, or training towers.

v. During the annual evaluations, the evolutions will simulate actual emergency operations. This means that the FRF personnel will wear full protective clothing and SCBA.

b. Fire and Rescue stations will be evaluated on two fire evolutions, one evolution, and one equipment operator standard. The results shall be recorded on the Minimum Standards Evaluation Form.

c. There are established time and performance standards for each evolution. Performance errors (task errors) will be assessed as additional time and will be added to the actual time taken to complete the evolution. A station whose total time (actual time plus errors) exceeds the time standard will be scheduled for re-evaluation of that evolution. The evaluator may fail any station that commits serious safety violations or whose performance is unsatisfactory.

d. Station that do not successfully complete an evolution will be re-tested within 30 days. If it fails the retest, appropriate disciplinary action will be taken.

e. After a station has completed an assigned evolution, it may be assigned additional tasks from the list of basic tasks described below. An error or safety violation that occurs when basic tasks are being performed will be noted on the evaluation form and may justify additional training and re-evaluation. Fine adjustments to engine pressure, relief valves, and removing kinks, must be done to avoid task errors. However, this will not be a part of the timed portion.

Basic Tasks:

a) Evolution: EMS 1 – Trauma Assessment

Time standard Ten minutes

Personnel required Minimum of two personnel

Procedure:

i) Establish level of consciousness.
ii) Establish airway (consider possible C-spine injury).
iii) Check breathing rate.
iv) Check for trauma, head, and chest, assess for breathing quality, treat, and administer oxygen.
v) Check circulation rate and quality.
vi) Identify and correct any severe bleeding.
vii) Check neck and apply appropriate stabilization (including chest) Check vitals
viii) Complete secondary survey.
ix) Check vitals.

b) Evolution: Fire 1 – Use of SCBA

Time standard One minute

Personnel required Single crew (three to four personnel).

Procedure:

i) Don SCBA from the normal position on the apparatus. (The officer and driver may step out of the apparatus to don SCBA).

ii) Time will start when the evaluator says, “Go”.

iii) Time will stop when the basics have been completed. This means that:

iv) The SCBA is operating in the positive-pressure mode.

v) The waist belt is fastened and snug.

vi) The face piece is properly sealed.

vii) The protective hood is on correctly with no skin exposed.

Failure to properly complete any of these four steps will result in failure of this evaluation.

Note: Gloves do not have to be worn.

This is a company standard, and *all* members must complete the test within the time allotted.

The failure of any one individual will result in the failure of the entire company.

This evolution does *not* replace the individual quarterly drill requirement.

c) Evolution: Fire 2 – Ladder Raise

Time standard: 14-foot ladder: Thirty seconds

24-foot ladder: One- and one-half minutes

Personnel Single crew (three to four personnel)

required:

Note: This evolution will be performed with full protective clothing and SCBA. The SCBA does not have to be in service and the face piece does not have to be worn.

Procedure:

i) 14-foot ladder stand: One firefighter removes and raises the 14-foot ladder. The time will start when the evaluator says, “Go.” Time will stop when the ladder is ready to climb.

ii) 24-foot ladder / two-person flat or beam raise: Two firefighters will raise the 24-foot ladder to a second story window or an equivalent height. Time will start when the person footing the ladder says, “Go.” Time will stop when the ladder is extended and secured. The evaluator will determine whether the flat or beam raise is to be used.

d) Evolution: Fire 3 – Setting lights and exhaust fans

Time standard Three minutes

Personnel required Single crew (three to four personnel)

Procedure:

i) Time starts when personnel leave their seats and time ends when the evolution is completed.

ii) Full protective clothing and SCBA will be worn. Personnel entering the building will have their SCBA and PASS devices operating.

iii) Start the generator.

iv) Advance a portable floodlight to the second floor and place into service.

v) Position the floodlights on the apparatus and place them in service to illuminate the front of the building.

vi) Place an exhaust fan at the doorway, start the fan, and blow air into the building using the correct PPV technique.

e) Evolution: Fire 4 – Service stations operations

Time standard: Five minutes

Personnel required one service crew (three to four personnel)

Procedure:

i) The stations truck will be positioned a short distance from the building (or drill tower). When personnel are ready, the signal to begin will be given.

ii) The driver of the truck will spot the truck in front of the building (tower). Time begins when the truck stops.

iii) Steps of the operation:

1) The truck crew will raise a 24-foot ladder to the second floor and advance a chain saw, three axes, a pike pole, and a 14-foot roof ladder to the roof.

2) The officer and two crewmembers will simulate (describe) opening a 4-foot X 4-foot hole in the roof.

3) The fourth crewmember, if available, will heal the extension ladder and assist on the ground.

4) The crew will then descend the ladder.

iv) Time stops when all crewmembers have descended the ladder.

b Evolution: Fire 5 – Supplying two 1 ¾ inch hand lines

Time standard four (4) minutes for a four-member-crew

Personnel required one fire engine crew (three to four personnel).

Procedure:

i) Stage the engine away from the hydrant. When personnel are ready, give the signal for the engine to proceed to the hydrant.

ii) Time starts when the engine stops at the hydrant.

iii) Steps of the operation:

1) Forward lay a single 3- or 5-inch supply line from the hydrant a

distance of 300 feet.

2) Advance two 1 ¾ inch pre-connects (both lines 200 feet)
3) Flow 250 GPM total at a nozzle pressure of 100 psi.
4) Time stops when both lines are supplied properly.

g) Evolution: Fire 6 – Two-piece operations

Time standard Five- and one-half minutes for eight personnel.
Six minutes for six personnel.

Personnel required Two fire engine crews (six to eight personnel)

Procedure:

i) Stage both engines away from the hydrant. When personnel are ready, give the signal for the attack engine to proceed to the fire area.
ii) Start the time when the attack engine stops at the fire.
iii) Delay the second engine by 30 seconds.
iv) Steps of the operation:
    1) The attack engine stops at the fire area and advances two 1 ¾ inch pre-connects (both 200 feet) and flows 250 gpm total.
    2) The supply engine arrives, delayed by 30 seconds, and advances a 3 or 5-inch line from the hydrant 300 feet to the attack engine, and makes necessary connections.
    3) Stop time when all lines are at the proper pressure and all connections are made.

h) Evolution: Fire 7 – Deck Gun Operations

Time standard Three minutes

Personnel required One fire tender (three to four personnel)

Procedure:

5) Stage engine and personnel away from the hydrant.
6) When personnel are ready, give the signal for the engine to proceed to the

hydrant.

7) Time starts when the engine stops at the hydrant.
8) Steps of the operation:
    i Lay one 3 or 5 inch supply line from the hydrant to the engine (300 feet)
    ii Make connections and place deck gun into operation, flowing water at 250 gpm.
9) Time stops when the engine is properly supplied and flowing water.

i) Evolution: Fire 8 – Master stream

Master stream – is **a fixed firefighting stream that flows large quantities of water (135 to 540 lit)**. Master streams may be elevated or set on the ground. Mayday – is any emergency transmission that means a firefighter is in trouble and is in need of rescue.

Time standard: Five minutes

Personnel required: One fire tender and One Service stations (six to eight personnel).

Procedure:

i) Stage the engine and personnel away from the hydrant. When personnel are ready, give the signal for the engine to proceed to the hydrant, and the truck to the fire area.
ii) Time starts when the engine stops at the hydrant.
iii) Steps of the operation:
    1) Lay two 3 inch or one 5-inch supply line from the hydrant, a distance of 300'.
    2) Position the engine and prepare the master stream for service.
    3) Lay one 100-foot supply line from engine to truck intake.
    4) Operate Master Stream pipe at 100 psi and flow water.
iv.) Time stops when the ladder pipe is properly supplied.

j) **Evolution: Fire 9 – Knots & Hitches**

Time standard: None. Pass or fail.

Personnel required: Each member shall demonstrate competence.

Procedure:

i. All members assigned to respond to emergency incidents shall be able to demonstrate the ability to tie a minimum of 6 standard knots and hitches, be able to hoist tools and equipment.

ii. Required knots and hitches:

1) Bowline.
2) Clove hitch.
3) Figure eight.
4) Half hitch.
5) Figure eight on a bight
6) Becket or sheet bend.

Evolution: Driver 1 – Serpentine Exercise

Serpentine *is an* exercise *works on: suppleness, straightness, contact, balance,* and the half halt

Time standard Not applicable

Equipment required: One fire engine or truck, and three traffic cones.

Procedure:

i) Drive the fire engine in a straight line along the left sides of the traffic cones, stopping just beyond the last cone.

ii) Back the fire engine between the cones by passing to the left of No. 1, to the right of No. 2, and to the left of No. 3. The driver shall not back the fire engine without someone assisting the driver as per FRF SOP's.

iii) Stop the vehicle and drive it forward between the cones by passing to the right of No. 3, to the left of No. 2, and to the right of No. 1.

iv) Running over a traffic cone will cause the driver to fail the exercise.

l) Evolution: Driver 2 – Street Dock Exercise

Time standard: Not applicable.

Equipment required: One engine or truck, plus traffic cones.

Procedure:

i) Drive past the barricades with the dock to the left of the operator.

ii) Back into the stall by making a left turn. The driver shall not back up the apparatus without someone assisting him as per department SOP's.

iii) Running over any traffic cones will cause the driver to fail the exercise.

m) Evolution: Driver 3 – Diminishing Clearance Exercise

The diminishing clearance exercise measures a driver's ability to steer the apparatus in a straight line through areas of restricted horizontal and vertical clearances, to judge the distances from wheel to object, and to stop at a finish line, so that no obstructions are struck.

Time standard: Not applicable.

Equipment required: One engine or truck, and traffic cones.

Procedure:

i) At a safe, moderate speed, the driver shall move forward through the course without hitting any of the traffic cones. Driving over a cone will cause the driver to fail the exercise.

ii) The course shall be a minimum of 150' from start to finish.

Evolution: Driver 4 – Straight-line Exercise

Time standard: Not applicable.

Equipment required: One engine or truck, and traffic cones.

Procedure:

i) The driver shall proceed through the course without stopping.

ii) The driver shall accelerate through the gears.

iii) Running over a traffic cone shall cause the driver to fail the exercise. (note: width of tires plus 4") (length 160' minimum, with cones 20' apart

SOP 17.DUST HAZARDS

Scope

The following Standard Operating Procedure describes the causes, dangers and prevention of dust explosions, whilst giving guidance for Operational Tactics. It is a characteristic of almost every combustible material, including some which are not by any means readily combustible when normally encountered, that when they are in the form of a finely divided powder they present special dangers to those who work with them and to the firefighter.

2.0 High Risk Areas

Among the industrial plants in which particular care has to be taken against this hazards are:

- Flour Mills
- Starch Works
- Coal pulverizing plants
- Metal grinding mills
- Cement factory mills

2.1 High Risk

It is perhaps true to say that the greatest difficulties from the firefighter's and rescuer's point of view are attached to the metal dusts, particularly Aluminum, Magnesium, Bronze powder and their alloys

2.2 Dust Explosions

1. Nature and behavior

The greatest danger associated with combustible dust is the dust explosion. The almost instantaneous combustion which is characteristic of dust explosion is due to the very high

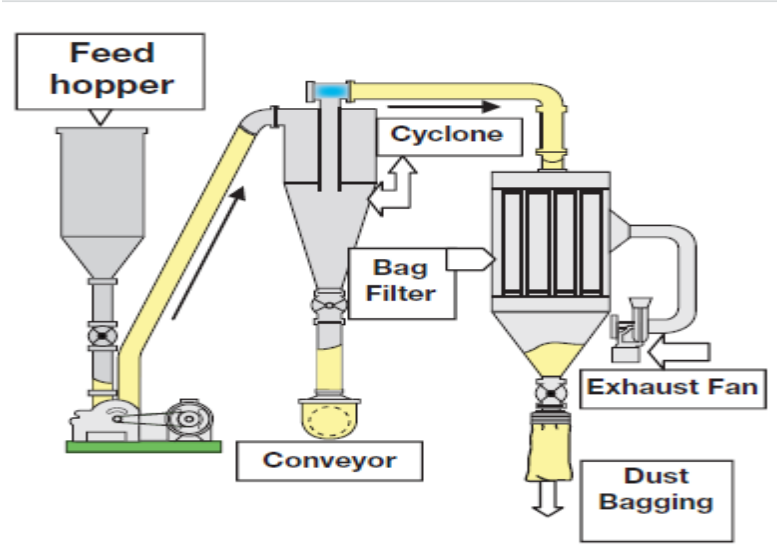
specific surface area of the particles of surface area exposed to the air by each particle in relation to its mass. Each particle burns very readily, due to the ample supply of oxygen available and its small mass is consumed in a fraction of a second. The heat of combustion, however, manages to bring them to their ignition temperature and the process spreads with the rapidity of an explosion.

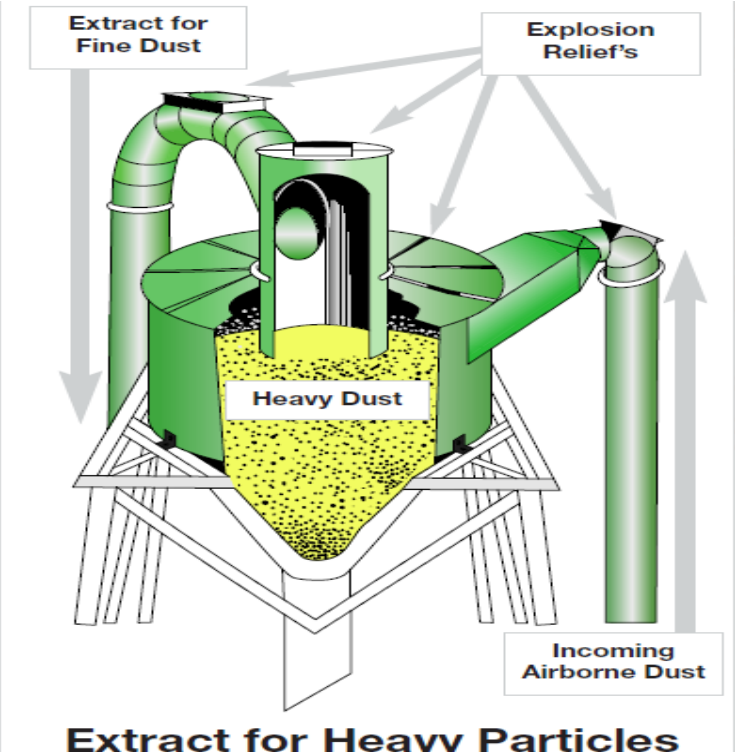
A dust cloud containing the right proportions of a combustible solid of the right particle size and air is capable of completely wrecking the building in which it occurs. In some cases, the whole industrial plant has been razed to the ground Many lives have been lost, including those of firefighters in such disasters.

The degree of concentration of the dust particles is critical both to the likelihood of the explosion occurring and to the severity of the detonation. Too high a concentration prevents the free access of oxygen to the particles and inhibits combustion; while too low a concentration prevents the heat of combustion of one particle being carried to the next, and makes continuation of the explosion impossible.

3.0 Causes

Dust explosions most commonly occur in grinding and pulverizing mills and similar machinery and in the dust extraction plant and ‘cyclones’ in which dusts are collected.





An occasion may arise when some of this dust is disturbed and becomes suspended in the presence of a heating appliance, a source of sparks or a naked flame. When conditions are right, this can give rise to a 'pilot' dust explosion, igniting a relatively small cloud of the right concentration.

This pilot explosion stirs up the dust lying on exposed surfaces. The same source of ignition can then produce an explosion of devastating power, capable of destroying the building and killing or severely burning the occupants

4.0 Dust has been divided into three Classes

i. Dust which ignite and propagate flame readily, the source of heat required for ignition being small
ii. Dust which ignite readily but require a larger source of ignition
iii. Dusts which do not ignite in the tests applied

Class I

Aluminum Acetate	Bronze	Cellulose
Chicory	Coal	Cocoa
Cork	Corn flour	Cotton, Ground
Oak Husks	Paper	Polythene
Potato	Rice Bran	Rubber
Shellac	Dextrin	Ebonite
Ferromanganese	Flax	Flour
Grass, Dried	Grains	Magnesium
Malt	Starch	Sugar
Sulpher	Tea	Titanium
Tobacco	Wheat	Wood Dust
Phenol - Formaldehyde Resin		

Class II

Castor Oil Meal	Prussian Blue
Barley	Steel Grindings
Herring Meal	
Meal, Yellow	Seaweed

Class III

Bone meal	Ivory & Mineral
Charcoal	Black
Detergent Powder	Kelp
Graphite	Lamp Black
Insect Powder	Lumbago

5.0 Preventive Measures

- Good House-keeping
- Suitable adaption or construction of buildings and plant
- Efficient dust extraction systems
- Use of inert gases
- Compartmenting
- Separation
- Venting
- Sprinklers

Precautions

When firefighting is in progress in any place in which dusts or powders might be encountered in any quantity, the dangers of an explosion will be much reduced if:

a) The fire-fighter is aware that they are in circumstances which offer a special risk, and of what that risk consists
b) Avoid the use of jets or even sprays, which strike harshly against piles or layers of dust, and use only a fine spray of low velocity. Use even this with EXTRA care to avoid the stirring up of any cloud of dust in the presence of flame or heat
c) In the case of metal powders, use extinguishers such as Powdered chalk Powdered, Soda ash or dry sand.

Avoid the use of vaporizing liquid extinguishers under any circumstances.

Avoid the use of Water Foam Chemical Extinguishers. Except where necessary for the protection of surrounding risks.

a. Avoid handling bins' cartons, drums or open containers of any flammable dust or powder in such a way that dust could be produced by your actions.
b. Consideration could also be given to the use of high expansion foam in certain circumstances.

SOP 18.REHABILITATION

1) Scope:

This standard applies to all emergency operations and training exercises where tough physical activity or exposure to heat or cold creates the need for the rehabilitation of personnel. It was promulgated to:

a) Prevent injuries, illnesses, and deaths that may result from excessive fatigue.

b) Establish procedures for medical evaluation and treatment, food and fluid replenishment, and relief from extreme climactic conditions during emergency operations and prolonged training exercises.

2) Definitions:

a) **Level 1 rehabilitation**: Situations of short duration. The incident commander may elect to use rehabilitation supplies from an apparatus on the scene or may call a rehab unit to the scene. Typically in Level 1 rehab, the crews are not rotated and the incident or training exercise has a limited duration.

b) **Level 2 rehabilitation:** Situations that require a major time and personnel commitment. Examples include a major fire or a lengthy training exercise in which the fire-fighter's health and safety must be addressed.

3) General:

a) The Incident Commander shall evaluate the circumstances at each incident and shall make early, adequate provisions for the rest and rehab of all personnel working at the scene. These provisions include:

i) Medical evaluation

ii) Treatment and monitoring

iii) Food and fluid replenishments

iv) Mental rest

v) Relief from extreme climactic conditions and other environmental factors present at the incident.

b) During prolonged incidents, strenuous training sessions, and periods of extreme heat or cold, the Incident Commander shall request that a rehab unit be assigned to the scene and shall appoint a rehab officer to manage the rehabilitation of the fire-fighters.
c) The Rehab Log shall be completed by the rehab officer at all Level 2 incidents. The log shall be submitted to the Incident Commander to be attached to the incident report, and it shall be included in the incident critique.

4) **Rehabilitation Sector**:
a) The Incident Commander shall establish a rehabilitation sector when conditions indicate that members working at an incident or training exercise require rest and rehab. The Incident Commander shall appoint a rehab officer who will assume command of the rehab sector. At most incidents, the location of the rehab sector will be designated by the Incident Commander. However, if the Incident Commander has not designated a rehab site prior to the appointment of a rehab officer. The rehab officer shall promptly select an appropriate location based on the most desirable site available.
b) The rehab sector should be placed in a location that allows members to physically and mentally rest and recuperate from the stress, pressure, and demands of the emergency operation or training evolution.
c) The rehab location should also be located far enough away from the incident scene to allow members to safely remove their protective clothing and SCBA. The rehab sector should be located in an area that provides suitable protection from prevailing environmental conditions. If possible, the sector should be in a cool, shaded area during hot weather and in a warm, dry area during cold weather.
d) If the rehab sector is located outdoors, the area should be free of ants and other stinging or biting insects.
e) Members in the rehab sector should not be exposed to exhaust fumes from

apparatus, vehicles, and motorized equipment, including those involved in the rehabilitation sector operations.

f) The rehab sector should be large enough to accommodate multiple crews and should allow for expansion or contraction as the size of the incident varies.
g) The rehab sector should be located close enough to the incident to allow members to promptly re-enter the emergency operation site after recuperation.
h) The following areas should be considered when selecting a site for the rehab sector:
    i) A nearby garage, building lobby, or other structure.
    ii) At least two floors below a fire in a high-rise building.
    iii) A large climate controlled vehicle such as a school or transit bus.
    iv) Fire apparatus, ambulances, or other emergency vehicles at the scene or called to the scene.
    v) An open area in which a rehab site can be created by using tarps, fans, etc.
    vi) At an industrial site, the rehab sector should be placed outside the fenced compound area.

Note: The rehab officer shall secure all the resources required to adequately staff and supply the rehab sector. The supplies may include the items listed below:

i) Fluids such as water, activity beverage, and ice.
ii) Food such as broth, or stew in hot/cold cups.
iii) Medical equipment such as blood pressure cuffs, stethoscopes, oxygen, administration devices, and other equipment provided on site unit(s).

Other items such as awnings, fans, tarps, smoke ejectors, heaters, dry clothing,

extra equipment, floodlights, towels, traffic cones, and fire line tape should be considered.

5) Guidelines:

a) The establishment of a rehab sector shall be considered during the initial planning stages of an emergency response. The climactic or environmental conditions of the emergency scene should not be the sole justification for establishing a rehab sector. Any activity or incident whether emergency or non-emergency, that is large in size, long in duration, and labour intensive will rapidly deplete the energy and strength of personnel.

b) Climactic or environmental conditions that indicate the need to establish a rehab sector include a heat index above 95 degrees F or a wind-chill index below 20 degrees F.

c) A critical factor in the prevention of heat stress injury is the intake of water and electrolytes during periods of intense physical activity.

   i) During these periods, an individual should drink at least one quart of water or activity beverage per hour.

   ii) Adequate fluid intake is important even during cold weather operations. Despite outside temperatures, heat stress injuries may occur during firefighting or other strenuous activity anytime that protective clothing and equipment are worn.

   iii) Individuals should avoid caffeinated and carbonated beverages because both interfere with the body's water conservation mechanisms.

   iv) Certain drugs also impair the body's ability to sweat. Use caution if a member has taken antihistamines, diuretics, or stimulants.

d) If the duration of an incident extends through regular meal times, the department may need to provide food to the members at the scene if it is possible to do so.

e) Forty-five minutes of work time is generally recommended as an acceptable level of work prior to mandatory rehabilitation.

   i) Members having worked through two full 30 minute rated SCBA cylinders, or for 45 minutes, shall be rotated to the rehab sector for rest and evaluation.

ii) In all cases, an objective evaluation of a members fatigue level is the appropriate criterion for determining if rest is required. Rest periods for members in the rehab sector shall be at least 10 minutes or longer.

Crews sent to rehab should be replaced by fresh crews from the staging sector. Crews released from the rehab sector should be rotated to the staging sector prior to returning to work. This procedure ensures that fatigued individuals do not return to work before they are rehabilitated

b) Members should not be removed from a hot environment and placed directly into an air-conditioned environment because the body's cooling system may shut down in response to the external cooling. An air-conditioned environment is acceptable only after a cool down period at ambient temperature with sufficient air movement.

c) Force personnel at the advanced life support level will be requested at each incident. Force personnel will evaluate the vital signs and physical condition of members as they are rotated through the rehab sector.

i) Force personnel will determine whether a member will be allowed to return to work, remain in rehab, or receive further medical treatment and be transported to a medical facility for further evaluation.

ii) Continued rehabilitation consists of the ongoing monitoring of vital signs, rest, and fluid intake. Medical treatment for a member whose signs and symptoms indicate potential problems will be provided in accordance with local medical control procedures. Force personnel will be aggressive in determining that potential medical problems exist.

d) When working crews arrive at the rehab sector, each member's vital signs shall be taken and recorded.

e) All medical evaluations shall be properly recorded by the paramedic, along with the individuals name and chief complaint, if any. The form must list the date, time, and incident number and be signed by the rehab officer.

f) Members sent to rehab shall enter and exit the rehab sector as a crew. The number of crewmembers and times of entry to and exit from shall be documented by the rehab officer. Crews shall not leave the rehab sector until released by the rehab officer.

6) Responsibilities:

a) All officers shall monitor the condition of each member working under their command and shall ensure that adequate steps are taken to provide for each member's safety and health. The incident command system is to be used to request that a crew be relieved and for the reassignment of fatigued crews.

During periods of hot weather, crewmembers are encouraged to drink water or activity drinks throughout the workday. During any emergency incident or training evolution, all members shall advise their supervisor when they believe their level of fatigue or exposure to heat or cold is approaching a point that could affect them, their crew, or the operation in which they are involved. Each member shall also monitor the health and safety of th

SOP 12. ACCOUNTABILITY

Scope:

This standard applies to personnel operating at an emergency incident. It was promulgated to provide a structured approach for tracking all members operating at an emergency scene.

Purpose:

This procedure identifies a system for fire-fighter accountability. The purpose is to account for all fire fighters, at any given time, within a small geographic area, within the “hazard zone” of an incident. Use of the system provides enhanced safety for all individual fire fighters, and provides the incident command organizational staff an improved means to track and account for all personnel working in the hazard zone.

The hazard zone are defined as an area that requires a SCBA or in which a firefighter is at risk of becoming lost, trapped, or injured by the environment or structure. This includes, but is not limited to, a structure reported to be on fire and the area in close proximity to the structure during exterior operations.

Guidelines/Procedure:

a) The provisions of this standard shall be follow whenever members are required to work in an environment that requires the use of SCBA or where a member may become lost, trapped, or injured by the environment.

b) Members operating in a hazardous environment as defined above shall maintain company or crew integrity and shall use the buddy system. This requires that:
    i) Crewmembers enter and exit the environment together.
    ii) Members remain within sight, voice, or reach distance of each other while they are within the environment. No one shall left alone.
    iii) Incident commanders and sector officers shall not direct crew to

operate independently of their company or crews.

iv) Task assignments shall be made through the in charge officer or crew leader.

c) FRF crew may be divided into multiple teams to perform tasks that do not require the efforts of the entire company, provided that:

i) Each team has a minimum of two personnel

ii) Each team is equipped with a portable radio.

iii) The officer remains in contact with each team and is constantly aware of their locations.

iv) A given team enters and exits the hazardous environment together.

v) On completion of an assigned task, the team leader reports to the in charge officer or crew leader for another assignment.

Accountability:

a) Accountability involves a personal commitment to work within the safety system at an incident.

b) Command shall maintain an accurate tracking and awareness of where resources are committed at an incident.

c) Command is responsible for including accountability as a major element in strategy and attack planning, and must consider and react to any barriers to effective accountability.

d) Sector Officers shall maintain an accurate tracking and awareness of crews assigned to them. This requires the Sector Officer to be in his/her assigned area and maintain close supervision of assigned crews.

e) All crews will work for Command or Sectors – free-lancing will not allowed.

f) Crews arriving on scene should remain intact for all intent and purposes. A minimum crew size will considered two (2) personnel; and radio communication is required for each crew.

g) All crews entering the hazard zone must be supervised by an officer or other assigned higher-ranking individual.

h) All crews will enter together, stay together, and come out together. Reduced visibility and increased risk will require very tight togetherness.

i) If a radio fails while in the hazard zone, the crew will exit unless there is another working radio with the crew. An attempt to secure a replacement radio should be done.

Accountability Equipment:

a) This equipment is currently in the development stages.
b) The current system consisting of the plastic identification tags worn on the back of the helmet and the command rings will be utilized until the implementation of a new system

Accountability Officers:

a) Accountability Officers may be Engineers, Sector Officers, or personnel specifically assigned to sectors to serve as Accountability Officers for the Sector Officer.
b) The first Engine to each geographic side of the incident will serve as the initial accountability location. All crews entering the incident will deliver their identification tags to the accountability location closest to their “point of entry” prior to entering the hazard zone. Sector Officers will manage identification tags only if he/she is not entering the hazard zone. Where the Sector Officer must enter the hazard zone, identification tags will remain on the first Engine (accountability location

Accountability Officers will report to either Command or Logistics.

Rules of Thumb:

Identification tag implementation involves the following basic rules of thumb:

a) Identification tags shall never take into the hazard zone.
b) Identification tags must be maintain at the point of entry to the hazard zone.
c) Identification tags must reflect only those personnel presently in the hazard zone.

Each crew must turn in the passport upon entering and must retrieve the identification tags upon exiting from the hazard zone, Rehab, or Staging.

Terminating the Accountability System:

a) Accountability will be maintain through a report of “fire under control”, at which time a Performance and Accountability Report (PAR) for all crews shall be obtained. The Incident Commander will determine at that time, based on the situation and risk, whether to continue with the accountability system. If visibility is still impaired or a significant hazardous condition still exists, the Incident Commander may choose to extend the accountability system

b) Upon termination and release of the incident, FRF officers and crews will ensure that the identification tag is return to the back of their helmet.

9) Lost/Missing Fire-fighters:

Assume an absent member of any crew will automatic lost or trapped in the hazard zone until otherwise determined safe. Station officers shall immediately report any absent members to Sector Officers or the Incident Commander. Reports of missing fire fighters require the Incident Commander to request the next greater assignment or alarm. The Incident Commander shall next initiate an immediate roll call (PAR) of all stations assigned to duty in the hazard zone. The Incident Commander shall also send the Rapid Intervention Team (RIT) to the last reported working area of the lost fire fighter to begin a search. Simultaneously with these actions, the Incident Commander shall adjust on-scene strategies to a priority search and rescue effort.

10) Personnel Accountability Report (PAR):

a) A PAR is a systematic method for reporting to command that all members operating at an incident are account for. It should be conducted periodically throughout an incident to ensure that all members are safe and accounted for. A PAR should be conducted:

i) When changing from an offensive to a defensive mode.

ii) When an unexpected or catastrophic event occurs, for example in the case of flashover, back draft, or structural collapse.

iii) After an emergency evacuation.

iv) At the first report that a member is missing.

v) When a fire is, declared to be under control.

vi) At the discretion of command. A sector officer may also conduct a localized report.

vii) Every 15 minutes if none of the above applies.

b) On receipt of an order to conduct a PAR:

i) In charge, officers or crew leaders shall confirm that their personnel are accountable for and shall notify their sector officer.

ii) Sector officers shall notify Command when all of the members under their span of control have been accountable.

iii) The PAR is complete when everyone has been properly accounted. This includes staff support assigned to a sector or to command.

iv) Dispatch shall repeat the announcement and give the correct time. The Incident Commander shall record the time on the incident worksheet.

11) Unless directed otherwise, operations will continue while the report is being taken.

Lost or Trapped Member:

i. In the event that one or more members cannot be accounted for, a PAR

shall be requested immediately by the member or officer who believes that a member is missing.

ii. If a member cannot be accounted for during a PAR, he will be presumed lost until he can be accounted for.
iii. An attempted rescue will become the top priority at the incident and sufficient resources shall immediately be assigned to conduct the rescue effort.
iv. As soon as all members have been positively accounted for, the rescue effort shall be suspended.

12) Emergency Communications:

a) The term emergency shall be used by anyone on the scene who needs to communicate an urgent message.

b) The term **Mayday** shall be used by anyone on the scene who becomes aware of or is involved in a life-threatening situation.

13) Emergency Evacuation:

a) When it is unsafe to continue emergency operations, Command shall order a rapid and complete evacuation from the hazardous environment.
b) An evacuation may be initiated by anyone at the incident, but the order to evacuate must be transmitted through the established chain of command to ensure that everyone can be accounted for.
c) The order to evacuate shall be transmitted as follows: “Interior Sector to Command, emergency! Evacuate the building immediately!”
d) Command shall immediately order everyone to evacuate the hazardous environment. Example: “Main Street Command, emergency! All units evacuate the building immediately! Repeat, all units evacuate the building immediately
e) All companies and each sector shall acknowledge the order to evacuate.
f) Apparatus operators (all), upon hearing the order to evacuate, will sound air/electric horns continuously for a period of 15 seconds.

g) Command shall conduct a roll call after everyone has acknowledged the order to evacuate.
h) The order to evacuate can only reinitiated by Command.

14) Personnel Accountability System:
a) All fire fighters will have accountability tags assigned.

b) The fire fighter tags will have a metal hook or clasp that will attach to the fire-fighters coat or helmet. The only time the tags are to be removed when that individual is involved in an emergency and or for cleaning of gear. The vehicle tags will be black with white lettering and will be issued to the IC or the Staging Officer when arrived on scene.

c) Once a fire fighter arrives at the scene, he/she shall report to the IC or Staging Officer to receive his/her assignment. After an assignment is given, he/she will report to the pumper displaying the green IC beacon and place his/her tag on the apparatus ring, and then proceed with assignment.

15) It is the responsibility of all personnel at the scene to enforce the accountability system.

16) Once the fire fighter completes his/her assignment the IC, or staging Officer shall change the assignment ring to reflect his/her next assignment.

17) Before a fire-fighter leaves the scene he/she shall retrieve their tag from the status ring other members of his crew

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