**Civil Aviation Authority of Nepal**

# Rescue and Fire Fighting Department

## Babarmahal, Kathmandu

Standard Operating Procedures for Airport Rescue & Fire Fighting Service (SOPs for ARFFS)

**Second Edition, 2019**

# Foreword

Nepal is committed to comply with the procedures in accordance with the convention on International Civil Aviation Annexes, SARPs, Manual, Guidelines Material and Directives so as to maintain harmonization on rules, procedures, practices and standards to bring Global aviation improvement. In accordance with the provisions of Annex 14 Aerodromes, Volume I- Chapter 9 States are required to provide rescue and firefighting equipment and services at an airport.

This Standard Operating Procedures for Rescue and Fire Fighting service (SOPs for ARFFS) Second Edition has been issued by the Director General, Civil Aviation Authority of Nepal. This Standard Operating Procedures for Rescue and Fire Fighting Serices shall maintain uniform standard, effective and efficient manner of service, facilities and equipment. Rescue and Fire Fighting Department will maintain this document as complete, accurate and up-dated as possible. Comments and recommendations for revision/amendment action to this publication should be forwarded to the Director of RFF Department.

Amendment ICAO DOC 9137 AN/898 fourth Edition 2015 Airport Service Manual Part 1 Rescue and Fire Fighting has mentioned regarding the Standard Operating Procedures (SOPs). SOP shall maintain tolerations condition in various aspect such as service standard, work performance, positive change on profession, management of apparatus or equipment, capacity enhance of personnel and comply with daily drill. SOP will came into effect after approved by Director General of CAAN.

Date: ...../...../2019 Civil Aviation Authority of Nepal

...../...../...../2076

**Civil Aviation Authority of Nepal**

# Rescue and Fire Fighting Services

## Record of Amendment

| No. of Amendment | Details of Amendment | Remarks | Entered by Name/signature | Date Entered | Remarks |
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**Civil Aviation Authority of Nepal**

# Rescue and Fire Fighting Service

## SOPs for ARFF Services

## Contents

# Chapter- 1
# General

## 1. General Considerations

### 1.1. Introduction

The principal objective of a rescue and firefighting service is to save lives in the event of an aircraft accident or incident. The operational objective of rescue and fire fighting service is to achieve response time. Personnel rescue is the all consuming objective of all resources at the crash scene. For this reason, RFF personnel must accomplish efficiently in rescue and fire fighting operation. This SOP sets out the standard practices to be met in the provision of RFF Services at an Airport which also clearly define the role and responsibility of RFF personnel in the airport emergency.

RFF Service must be assume at all times of the possibility of, and need for, extinguishing a fire that may occur at any time during the airport operation such as landing, taking off, taxing, parking, rescue operation and other facilities within the vicinity of airport.

The rupture of fuel tanks in an aircraft crash and the consequent spillage of highly volatile fuels, and other flammable liquids used by aircraft, present a high degree of probability of ignition if these liquids come in to contact with hot metal parts of the aircraft or because of the sparks caused by the movement of wreckage or disturbance of the electrical circuit.

Fires may also occur through the discharge of accumulated electrostatic charges at the time of ground contact or during fueling operations. An outstanding characteristic of aircraft fires is their tendency to reach lethal intensity within a very short time. This presents a sever hazard to the lives of those directly involved and handicaps rescue efforts.

The standardization of emergency exits and their ability to be opened from the inside and outside of an aircraft is of primary importance in rescue operations. The

provision of special tools to rescue teams in order to gain access to the interior of a fuselage is essential but their use can only be regarded as an extreme measure to be taken whenever for special reasons normal means of access are unavailable or unsuitable for use.

The most important factors bearing on effective rescue and fire fighting in a survivable aircraft accident or structural fire are the training received, the effectiveness of the equipment and the speed with which personnel and equipment, designated for rescue and firefighting purpose, can be put into use. For this reason, the SOP shall be implemented to enhance the efficiency of RFF personnel. The SOP set out hereunder concerning these services are intended as a standard, to be applied to the fullest extent practicable.

## 1.2. Objective of SOP:

1.2.1. Objective of this SOPs is to ensure role and responsibility of the RFF personnel during the daily routine and non-routine circumstances involving accidents or incidents affecting the safety of aviation.

1.2.2. Provision of Fire Prevention and Protection system intended to be airport and it surrounding areas.

1.2.3. Mobilize of skilled manpower to make effective rescue and firefighting service.

1.2.4. Skill test of Rescue and Fire Fighting personnel

## 1.3. Definitions

**Aircraft Accident:** An aircraft accident which has occurred on or in the vicinity of the airport.

**Full Emergency:** When it is known that an aircraft approaching the airport is or is suspected to be in such trouble that there is danger of an accident.

**Local Stand by:** When an aircraft approaching the airport is known or is suspected to have developed some defect but the trouble is not such as would normally involve any serious difficulty in effecting a safe landing.

**Response Time:** The operational objective of the rescue and firefighting service shall be to achieve a response time of two minutes and not exceeding three minutes to the end of each runway as well as two any other part of the movement area, in optimum conditions of visibility and surface conditions. Response time is consider to be the time between initial call to the

ARFF service & the time when the first responding vehicle(s) is (are) in position to apply foam at a rate of at least 50% of discharge rate.

**Rendezvous point:** A rendezvous point is pre-arranged reference point, i. e. road junction, cross-road or other specified place, to which personnel/vehicles responding to an emergency situation initially proceed to receive directions to staging areas and/or the accident/incident site.

**Staging Area:** A staging area is a pre-arranged, strategically placed area, where support response personnel, vehicles and other equipment can be held in readiness for use during an emergency. Normally, one of the staging area is located in the vicinity of the fire station.

**Stand by point:** It is pre-determined point of ARFF vehicles to stay stand by to cope with any type of pre- informed emergency.

**Aerodrome:** A defined area in land/water associated with buildings, installations and equipment which is either wholly or partly used for take-off, landing and surface movement of aircraft.

**Aircraft:** Any machine that can derive support in the atmosphere from the reactions of the air against the earth's surface. Aircraft Accident which has occurred on or in the vicinity of the airport

**Aircraft in Flight:** An aircraft shall be deemed to be in flight at any time from the movement with all its external doors closed following embarkation until the moment when any such door is opened for disembarkation. Provided in case of a forced landing, the aircraft shall be deemed to be continued in flight until the responsible authorities take over for aircraft and for persons and property on board.

**Aircraft in Service:** An aircraft shall be deemed to be in service from the beginning of pre-flight preparation of the aircraft by ground personnel or crew for a specific flight until twenty-four hours after landing. Such period of service shall, in any event, extend for the entire period during which the aircraft is in flight as defined above.

**Aircraft Operator:** A person, organization or enterprise engaged in or offering to engage in regular public transport or charter aircraft operations. Within the context of this Program "aircraft operator" shall mean the operator of any aircraft engaged in commercial air transport operations and any entity conducting general aviation operations, including corporate aviation operations, using aircraft with a maximum take-off mass greater than 5.700 kg.

**Aircraft Stand:** A designated area on an apron intended to be used for parking an aircraft.

**Air Navigation Installation:** Any building, works, apparatus or equipment used wholly or mainly for the purpose of assisting air traffic control or as an aid to air navigation, together with

any land contiguous or adjacent to such buildings, works, apparatus or equipment and used wholly or mainly for the purpose connected therewith.

**Airport:** Any area of land or water designed, equipped, set apart or commonly used for affording facilities for the landing and taking off of aircraft and includes any area of the space, whether on ground, on the roof of a building/elsewhere, which is designed, equipped or set apart for affording facilities for the landing and taking off of aircraft capable of descending or climbing vertically.

**Airport Operator:** A person or organization name appears on the licensed document of an airport.

**Airside:** The movement area of an airport, adjacent terrain and buildings or portions of buildings there of access to which is controlled.

**Apron:** A defined area, on a land aerodrome, intended to accommodate aircraft for the purposes of loading or unloading passengers, mail or cargo, fueling, parking or maintenance.

**Bomb Threat:** A communicated threat, anonymous or otherwise, which suggests, or implies, whether true or false, that the safety of an aircraft in flight or on the ground, or any airport or civil aviation facility or any person may be in danger from an explosive or other item or device

**Dangerous Goods:** Articles or substances which are capable of posing significant risk to health, safety, property of the environment and which are shown in the list of dangerous goods in the Technical Instructions or which are classified according to those instructions.

**Command Post**: The location at the scene of an emergency where the on-scene commander isolated and where command, co-ordination, control, and communications are centralized.

**Crew Member**: A person assigned by an aircraft operator to duty on an aircraft during a flight duty.

**Explosive Device**: Any device that can be triggered to explode. A list of such articles shall be attached to Airport Security Programs.

**Flight Crew:** The operating crew of an aircraft including the flight deck and cabin crew.

**Fire Pit:** A pit where hot fire drill is carried out. The minimum size of pit shall be 30 x 20 x 1 Meter.

**Grid Map:** Airport grid map showing airport and adjacent areas up to 4 km from airport perimeter boundary. It helps easily to find out exact location of aircraft accident or incident

**Incendiary Device**: Any device containing an inflame substance for causing a fire.

**International Airport**: any airport designated by the Contracting State in whose territory it is situated as an airport of entry and departure for international air traffic, where formalities

incident to customs, immigration, public health, animal and plant quarantine and similar procedures are carried out.

**Landside:** That area of an airport and buildings to which both traveling passengers and the non-travelling public have unrestricted access.

**Movement Area**: That part of an aerodrome to be used for the take-off, landing and taxiing of aircraft, consisting of the maneuvering area and the apron(s).

**Ramp**: See Apron.

**Response Time:** The operational objective of the rescue and fire-fighting service shall be to achieve a response time of two minutes not exceeding three minutes to the end of each runway as well as to any other part of the movement area, in optimum conditions of visibility and surface conditions. Response time is considered to be the time between initial call to the rescue and firefighting service and the time when the first responding vehicle is in position to apply foam at a rate of at least 50% of discharge rate specified in table 1.1 and 1.2

**Triage Area:** Triage is the sorting and classification of casualties to determine the order of priority for treatment and transportation. Triage Area is the location where triage operations are performed.

**Vulnerable Point:** An installation or facility at an airport which, in the opinion of the Civil Aviation Authority, would impair civil aviation operations at the airport if damaged or destroyed.

## Domestic Airport Emergency Plan, 2007 Section- 4 has described the following types of emergency:

ALERT – 1 Aircraft Accident (On Airport)

ALERT – 2 Aircraft Accident (Off Airport)

ALERT – 3 Full Emergency (Airborne Aircraft)

ALERT – 4 Unlawful Interference

ALERT – 5 Bomb Threat – to Aircraft

ALERT – 6 Bomb Threat – to Building

ALERT – 7 Ground Incident

ALERT – 8 Structural Fire

ALERT – 9 Local Stand by

ALERT – 10 Weather Standby

ALERT – 11 Medical Emergencies

The role and responsibility of ARFFS shall be carried out as per the Airport Emergency Plan of concerned airport.

# Chapter – Two
# Legal Requirements

## 2.1. International Requirements

In Accordance with Annex 14 volume 1 Chapter 9.2.1 Rescue and Firefighting equipment and services shall be provided at an airport. International Civil Aviation Organization (ICAO) Doc 9137-AN/898 Part 1, Airport Services Manual details the requirement of Rescue and Fire Fighting services.

In accordance with Annex 14 Volume 1 Chapter 9.2.2 Aerodromes should be categorized for rescue and firefighting purposes and the level of protection to be provided at an aerodrome should be appropriate to the aerodrome category.

## 2.2. National Requirements

Nepal Civil Aviation Authority Act 1996, Clause 5 (K) under Function, Duties and Right of Authority consists of the provision to provide Fire Fighting and Life Saving Services at an aerodrome and within an aerodrome area and to coordinate the search and rescue operations.

Airport Emergency Plan and Aerodrome Manual of Tribhuvan International Airport, which ensure the notification procedures and response procedure of ARFFS during the time of Emergency within and outside of the Airport.

Tribhuvan International Airport Aerodrome Manual Sixth Edition 2014 Section 4 Clause 4.4 has described the purpose of ARFF service, Responsibilities of Deputy-Director and Manager(shift-in charge), Legislation, ARFF Category, Reduction of category, Inventory.

CAR – 14, Chapter-9, Clause 9.2 Describe the Rescue and Fire Fighting Service; Level of Protection, Extinguishing Agents, Rescue Equipment, Response time, Emergency Access road, Fire station, Communication and alerting Systems, Personnel. CAAN, Airport Rescue and Fire Fighting Services Manual, 2012, Second Edition, 2019

# Chapter – Three
# Emergency Response Procedures

## 3.1. General

3.1.1. On receipt call from air traffic control (ATC) announcing an aircraft emergency, watch attendant activate the crash alarm and relay the received message to RFF personnel through public address (P.A.) and the required equipment shall dispatch to the scene of the accident site maintaining response time or to the predetermined stand by position applicable to the runway to be used.

3.1.2. When information is received from a person other than an air traffic control (ATC) officer on duty that an aircraft accident has occurred or appears to be imminent, the ARFFS will turn out in the same manner as if the call had been given by air traffic control (ATC) and RFFS shall notify at once of the nature and situation of the emergency to the control tower.

3.1.3. The following information shall be obtained as soon as possible from the control tower upon notification of an in-flight emergency (e. g. fire in flight, loss of gear, hydraulic failure or other malfunction) and watch attendant of fire station shall relay following information to the Senior Officer and also record all the information in the log book.

- Type of aircraft
- Estimate time of arrival
- Nature and severity of emergency
- Amount of fuel on board
- Number and location of passengers and crew
- Runway to be used

- Nature and location of any cargo of critical significance

3.1.4. In the case of aircraft accident within the vicinity of airport, RFF personnel shall proceed by fasted access routes to reach the affected areas indicated by air traffic service. Fire commander shall record all the necessary information as required on the route.

**3.2. Each aircraft fire is unique, generally ARFFS shall take following necessary actions at the accident site if fire revealed:**

3.2.1. First of all, position the fire vehicles close enough to maximum effectiveness from monitor and side lines. The vehicles will position in upwind position considering escape/rescue route as well as terrain and uphill.

3.2.2. After positioning the vehicle, attacking use monitor or sideline to suppress the fire. The attack may be nose to tail attack or cross attack as depend upon the situation. Attack the fuselage and cover the spill area with foam.

3.2.3. RFF personnel shall establish and maintain the rescue/evacuation path preventing the spread of fire. In the meantime, commander will request to arrange backup water and foam supplies if necessary.

3.2.4. Rescue shall begin upon arrival of Rescuer with supporting evacuees or initiate rescue operation and transport occupants into a bearable atmosphere that may be collection area. At least two rescuers will work together using normal/ emergency exits or forcible entry as situation permitted. For rescue operation, RFFS may take the help of Airport Security and Airport military force.

3.2.5 The RFF division of TIA or other fire station shall immediately establish the command post and help to provide and arrange ambulances, stretchers, tents facilities in the time of Aircraft accident and incident.

3.2.6. Senior Officer shall take responsibility of on-scene commander at the accident site. When accident site is safe from any further fire, all rescue

activities have been completed, Senior officer execute the formal handover of on-scene commander to Airport Chief.

3.2.7. In the case of no fire, RFF personnel shall cover spill area with foam and take the ready position to cope with any type of emergency. In the meantime, rescuers support evacuees or initiate rescue operation as per the situation.

3.2.8. Response by RFFS to off-airport accident, RFFS shall take necessary action after coordination with General Manager, TIA or Airport Chiefs.

3.2.9. In case of structural fire/domestic fire within the airport vicinity, require equipment shall dispatch to the fire site taking minimum time coordinating with control tower and position the vehicles at appropriate place and commence fire suppression and rescue works.

3.2.10. For emergency involving gear malfunction or tire difficulty, fire vehicles shall position near the point of touch down and follow the aircraft after ground contact as permitted by the situation. Fire commander of vehicle shall inform the situation to the control tower. In order to coordinate for better handling of gear malfunctioning or tire/wheel difficulty, it is often desirable to establish direct contact with the flight crew members. So, RFF on-scene commander should take immediate steps to establish direct contact to the pilot. The final determination regarding evacuation from the aircraft must be made by the pilot in command with input from the RFF incident commander. RFF personnel must assist the air crew in any way possible in the evacuation.

3.2.11. In the case of aircraft incident/accident, RFF personnel shall conduct a complete overhaul regardless of whether a fire has occurred or not.

# Chapter – Four
# Operational Procedures

## 4.1. Operational Procedure

4.1.1. The rescue and firefighting service at an airport shall under the administrative control of the airport management, which should also be responsible for ensuring that the service provided is organized, equipped, staffed, trained and operated in such a manner as to fulfill its proper functions. In this context, CAAN, Head Office shall make a supportive role as well as promulgation necessary policy and program to fulfill its prime objective.

4.1.2. Three shift (morning, day, and night) shall be conducted to make available provided Rescue and Fire Fighting Service at TIACAO. Two Shift shall be conducted to made available RFF Service at other domestic airports where RFF Service provided. Each shift has 6 hours operational duty. If the flight movement is continued after the end of third shift, the same third shift will continue till last movement of aircraft. Besides three shifts, there is another shift i. e. skeleton shift with eleven crew members.

4.1.3. All operational activities shall be under the command, control and supervision of shift-in-charge. Shift in-charge shall made the followings activities:

- Hand over and take over
- Detailing of crew and equipment
- Deployment of crew
- Reporting to Fire Chief
- Maintain logs/forms as mentioned in Appendixes
- Manage for smooth operation of RFFS.

4.1.4. Deployed crew member shall check their equipment thoroughly and report to shift-in-charge. Daily activities record of crew member shall be maintained in accordance with the daily station routine on the basis of SOP for RFF Services. Vehicle commander, Drill commander shall be deployed by shift in-charge. All the activities shall be supervision under the Shift in-charge. Drills are safe work procedures which enable crews to acquire knowledge and develop the core skill s necessary to use Fire Service equipment safely and effectively. Shift in-charge will be over all responsibility to conduct drills. Shift in-charge as well as drill commander shall emphasized on team

coordination and building performance. Personal Safety of RFF crews shall be highly emphasized.

4.1.5. In each shift, the vehicle operator shall check the vehicle including necessary equipment and required amount of water, foam, other materials. The team leader shall be assigned the job individually and in group.

4.1.6. For the test purpose, each vehicles shall be started and driven less than 1 km from the station in the supervision of team leader. Return back to station, vehicle shall not be driven back, will make round and enter the station from backside of the vehicle bay. Vehicle shall be constant communication contact with the Fire watch tower and monitor the control tower frequency all the time. Any deficiencies shall immediately be notified to the shift in-charge and suggest him/her for the necessary correction.

4.1.7. To maintain the physical fitness and efficiency of RFF personnel, Shift in-charge and team leader shall arrange to conduct physical training and other physical exercises at the beginning of each shift remaining within the station premises. During this time, shift in-charge shall briefing to the staffs regarding the normal operating conditions as well as the emergency response procedures as stipulated in AEP and other relevant information to maintain the recurring of their knowledge.

4.1.8. Constant observation of flight movement, fueling operation, apron and surrounding activities shall maintain from the fire watch tower. This unit receives message from control tower/any person and convey message through different communication media like telephone, siren, public address to RFF personnel and concerned unit/division at the time of emergency. Watch tower operator shall check all the communicative and shall report to shift in-charge Watch Tower Operator shall check all the equipment of watch tower and shall report to Watch Tower Supervisor and Watch Tower Supervisor report all the details to Shift-In charge.

4.1.9. For the VVIP movement, RFF Service shall dispatch required fire vehicle at the predetermined standby point and return back to the station in coordination with concerned office.

4.1.10. Every Airports Authority where RFFS is available must be appointed minimum two RFF Personnel as a fire prevention officers recommended by airport fire service. Fire Prevention officer shall conduct different type of program for fire prevention and Protection. He/She inspection, patrol and check the fire extinguishers, fire hydrants, sprinkler system and other required equipment and apparatus on the prescribed scheduled and shall report in written to Shift In charge. Each shift in-charge shall conduct the RFF personal skill test at every 4 months in the presence of Station in charge. Representative of RFF Department shall also be supervised the skill evaluation test of RFF Personnel individually.

## 4.2. Role and responsibilities of RFF personnel

### 4.2.1. Chief/Fire Chief:

- Establishing command and control over the shift in-charges, RFF personnel and over all operational aspect both in normal operating and emergency.
- Ensure the shift in-charges are maintaining the command and control over the staff and their shifts.
- Shift-in-charges shall fully ensure that accomplishing their duties and responsibilities in effective manner to this SOP, Airport Emergency Plan and other relevant documents, rules, directives and their specific job.
- Coordination with respective Airport management in all matters required for the smooth functioning of Rescue and Firefighting Services.
- Acquire information about the status of fire vehicle and other equipment.
- Arrange the expedite maintenance of the vehicle and other equipment.
- Make proper planning and budgeting on coordination with the shift in-charge for the smooth operation of the vehicle and the service as a whole.
- Determine the basic need of the current and future scope of operational status.
- Management of required job and operational aspect of fire service
- Follow the Fire Fighting Manual, Airport Emergency Planning, Aerodrome Manual and required legal document.

### 4.2.2. Shift in-charge:

- Handover /Takeover of the shift
- Detailing of Crew members
- Assign duty to all staffs of shift.

- Establishing command and control over all staffs of shift during the operational aspect both in normal operations and emergency situation coordination with RFF chief,
- Taking briefing about the serviceable fire vehicles and other equipment.
- Carrying out by him/herself and require RFF staff to accomplish the duties and responsibilities in accordance to this SOP, Airport Emergency Plan and other relevant documents, rules, directives and specific job.
- Maintain status of the fire vehicle and equipment and report to the Fire Chief and manage smooth operation
- Assign marshalling for vehicle exit/enter the fire station to avoid any incident.
- Other jobs as required for the management and the operation of the service.
- Implement the daily station routine.
- Maintain neat and clean all around the fire station including RFF equipment.
- Actively follow AEP, Aerodrome Manual and relevant rules and regulation during the Emergency.

### 4.2.3. Team Leader/Vehicle Commander:

- Supervised the handling sequences of fire vehicle operation.
- Supervised Vehicles, Equipment and Ancillaries.
- Supervised Vehicle's Performance
- Missing Ancillaries should be fulfilled.
- Coordinate and communicate with Shift-In charge and others during the emergency as required.
- Keep record of vehicle conditions and Crews Activities and submit ti report with Shift in-charge.
- Maintain neat and clean the vehicle, ancillaries, accessories as well as fire station and surroundings.
- Actively participate in the daily physical exercises and drills.

### 4.2.4. Vehicle Driver/Operator:

- Check the Vehicle Engine Oil, Radiator, Fuel.
- Check the Level of Water and Foam.
- Check the Driving/operating conditions of fire vehicle and operate the Pump and its' pressure.
- Check the Monitor, Bumper turret and Sideline condition.
- Reporting to the Vehicle Commander.

- Meet the Response time, proper positioning of the Vehicle, Quick operate the Monitor and Suppress the Fire during the emergency.
- Maintain neat and clean the vehicle, ancillaries, accessories as well as all fire station and its surrounding areas.
- Actively participate in the daily physical exercises or drills.

**4.2.5. Fire fighter/Rescuer:**

- Check the PPE and Self-Contained Breathing Apparatus.
- Check the Rescue and Fire Fighting Equipment or ancillaries and fill-up the vehicle inventory check-list form.
- Maintain the Outlooks of the Fire Vehicles.
- Maintain neat and clean the fire vehicle, ancillaries, accessories as well as fire station and its surrounding areas.
- Reporting to the Vehicle Commander
- Actively participate in the daily physical exercises or drills.

**4.2.6. Fire prevention officer:**

- Inspect, check and patrol the terminal buildings, cargo buildings, hangers, ramp area, aprons, oil depot, surroundings and other specific fire hazard areas, facilities and appliances installed. Maintain log and report to authorized person or office. Continue follow up to correction of deficiencies.
- Provide fire prevention knowledge and procedures to operate the installed appliances and facilities within TIA or Other Airports premises to the security personnel, Airlines and other ground staffs periodically.
- Familiarize the airport boundary to ARFF staffs about the location, nature of installed appliances and facilities within airport premises and surroundings.
- Manage fire preventive measures.
- Provide appropriate suggestions to enforce and ensure effective fire prevention and safety within airport premises and its surrounding areas.

**4.2.7. Watch Tower Supervisor/operator:**

- Check all communication or Watch Tower Equipment (radios, PA system, Siren, Telephones) as procedure.
- Watch the aircraft movement, Aircraft parking-bay, taxi-way, runway, and airport surrounding areas.
- Keep record and Report it to the supervisor and supervisor shall report to the shift-in charge as required.
- Monitor Radios Frequency (Ground and Air), Telephone,

- Relay Information to the RFF personnel through PA, Siren and Telephone.
- Follow the Airport Emergency Plan during the emergencies.
- Maintain the aircraft movement log book.
- Actively participate in the daily physical exercises and drills.

# Chapter – Five
# Training

## 5.1. Training

Rescue and Fire Fighting Department shall arrangement training program for RFF Personnel in the need basis. The identification of necessary training will verify by the RFFD on request of Civil Aviation Academy and other Civil Aviation Offices. The following trainings shall conducted by Civil Aviation Academy (CAA) as per demand of Rescue and Aviation Fire Services and other stakeholders.

a) Basic Aerodrome Firemen Ship Course
b) RFF Refresher Course
c) RFF Advanced Training
d) ARFF Field based Training
e) RFF Equipment Operational Training
f) Breathing Apparatus Training
g) Watch Tower Operations Training
h) First-Aid Training
i) Fire Orientation Training

## 5.2. Fire Station under the Civil Aviation Offices shall keep the following records of all activities:

| | |
|---|---|
| **1. Daily Station Routine** | **Appendix A** |
| **2. Fire Vehicle Performance Test Form** | **Appendix B** |
| **3. VVIP Movement Form** | **Appendix C** |
| **4. Commander Report Form** | **Appendix D** |
| **5. Maintenance Record Form** | **Appendix E** |
| **6. Drill Activity Report Form** | **Appendix F** |
| **7. Daily Operational Report Form** | **Appendix G** |

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| **8. Fault Reporting Form** | **Appendix H** |
| **9. Fault Clearance Report Form** | **Appendix I** |
| **10. Watch Tower Emergency Report Form** | **Appendix J** |
| **11. ARFF personnel Evaluation sheet.** | **Appendix K** |

***Note: Aviation Fire Service shall be involved in Full Scale Emergency Exercise, Partial Exercise and Table top exercise conducted by various airports and agencies.***

***Appendix- A (1)***

**Civil Aviation Authority of Nepal**

# Rescue and Fire Fighting Service

## *Daily Station Routine*

***First Shift (Morning Shift)***

| ***Time:*** | ***Activities:*** |
|---|---|
| 06:00 – 06:30 | Attendance and Duty deploy<br>Equipment Checking/vehicle check up and run up |
| 06:30 – 07.00 | Reporting/debriefing; (vehicle commander to Shift In charge) |
| 07:00 – 07:15 | Break Time |
| 07:15 – 08.00 | Physical Exercise/ Sports |
| 08:00 - 08:15 | Refresh and changing |
| 08:10 – 10:15 | ***Station Drills and other activities:*** |

*Sunday – Station, Vehicles and Equipment cleaning, maintaining and Handling*

*Monday – PPE Donning + Breathing Apparatus Donning +Rescue Drills*

Tuesday – Airport Surrounding Visit (Team with Fire Prevention Officer)

*Wednesday – Hose Drill; Laying+ Rolling+ (Dry and Wet) +Hose Carry*

*Thursday – Table Top Exercise / Situation Drill (on different emergencies)*

*Friday –Firefighting Practice on different situation)*

*Saturday – Games and other activities*

10:15--10:30 - Debriefing

10:30-11:50 Lunch Break

11.50 – 12.00 - Hand over and Takeover

**Note:- Live fire drill should be done in every month**

***Appendix- A (2)***

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# Rescue and Fire Fighting Service

## *Daily Station Routine*

**Second Shift (Day Shift)**

| **Time** | **Activities** |
|---|---|
| 12:00- 12:30 | Attendance and Duty deploy Equipment Checking/vehicle check up and run up |
| 12:30 – 13.00 | Reporting/debriefing (vehicle commander to Shift In charge) |
| 13:00 – 13:15 | Break Time |
| 13:15 – 15:00 | Station Drills and other activities: |

*Sunday – Hose Drill; Laying+ Rolling+ (Dry and Wet) +Hose Carry*

*Monday – PPE Donning + Breathing Apparatus Donning +Rescue Drills*

*Tuesday – Station , Vehicles and Equipment cleaning, maintaining and Handling*

*Wednesday – Table Top Exercise/Situation Drill (on different emergencies)*

*Thursday – Firefighting Practice on different situation*

*Friday* – Airport Surrounding Visit (Team With Fire Prevention Officer)
*Saturday – Recreation and other activities*

| | |
|---|---|
| 15:00-15:30 | Debriefing |
| 15:30-16:30 | Tiffin/Lunch Break |
| 16:30-17:30 | Games / sports and other Activities |
| 17:30 -18:00 | Handover and Takeover |

**Note:- Live fire drill should be done in every month**

***Appendix- A (3)***

**Civil Aviation Authority of Nepal**

# Rescue and Fire Fighting Service

## *Daily Station Routine*

**Third Shift (Night Shift)**

| Time | Activities |
|---|---|
| 18:00-18:30 | Attendance and Duty deploy<br>Equipment Checking/vehicle check up and run up |
| 18:30 – 19.00 | Reporting/debriefing |
| 19:00 – 19:15 | Break Time |
| 19:15 – 20:30 | ***Station Drills and other activities:-***<br>1. Lighting System check and Test<br>2. Rescue equipment and ancillaries check and test<br>3. Airport surrounding area visit with fire prevention officer |
| 20:30-21:30 | Dinner Break |
| 21:30-23:30 | Discuss/lecture/fire related documentary/ film |
| 23:30-00:30 | Rest and handover to skeleton Shift |

**Note:- This daily station routine (third shift) form will be implied as required.**

***Appendix -B***

**Civil Aviation Authority of Nepal**

# Rescue and Fire Fighting Service

## Fire Vehicle Performance Test Form

Type of Vehicle: ……..

Acceleration: 80 km./hr. within ……..seconds.

Top speed: …….. km./hr.

Pump performance Test:

**1. Monitor :**

a) Throwing Range - ……..meters at 14 bar
b) Discharge Rate - …… L/min. at 14 bar

**2. Bumper Turret:**

a) Throwing Range:…….. meter at 14 bar.
b) Discharge Rate…….. L/ min. at 14 bar.

**3. Side Lines:**

a) Throwing Range - ……..meters at 14 bar
b) Discharge rate - ……..L/min. at 14 bar.

Remarks: ……..

Signature:…….
Operator Name: ……..

Signature: ……..
Shift-In-Charge Name:……

***Note : The performance test will conduct on the monthly basis.***

***Appendix -C***

**Civil Aviation Authority of Nepal**

## Rescue and Fire Fighting Service

# VVIP/VIP Movement Record Form

Date: ……

Name of VVIP/VIP : …….

Flight No. : ……

Arrival Time : ETA :…….ATA……...

Departure Time : ETD :…….ATD……...

Initial Call Time : ……. Turn Out Time:…….

No. of vehicle used : ……..

Return back to station Time : …….

Signature…….

Commander Name:……..

Signature : ……..
Name of Shift-In-Charge

***Appendix-D***

**Civil Aviation Authority of Nepal**

# Rescue and Fire Fighting Service

## Commander Report Form

Date …….

Information Received from:……..
From:……..
Time:……..

Type of Emergency : ……

ETA of Aircraft : ……..(GMT) …….(LT)

Runway to be used : …….

Aircraft Call Sign : ……

Type of Aircraft : ……

Accident site (In the case of ALERT 1): ……

Amount of Fuel On board : ……..

No. of Passenger and crew : …….

Any cargo of critical significance : …….
Location : ……
Quantity : ……

Turn-out Time :……..
No of used Vehicle :…….
Types of Vehicle:…….
Return back time to station. ……

Details of accident/incident
……
……
Remarks
……

Signature : ……..

Name of Shift-In-Charge

***Appendix -E***

**Civil Aviation Authority of Nepal**

# Rescue and Fire Fighting Service

## Maintenance Report Form

Shift : ……

Date : ……

| S. N | Name of the equipment | Details of problem | Reporting Time | Remarks |
|---|---|---|---|---|
| | | | | |
| ***Clearance action details:***<br>Clearing Section Name:<br>Clearing Tech. Name: | | | | |
| Facility outage: | | | | |

***Reported by:***

Signature……..
Name……
Designation…….
Division/Section…….

***Report Received by:***

Signature……..
Name……
Designation……..
Division/Section……..
Date and Time:

Signature…….

Shift In-charge……

***Appendix –F***

**Civil Aviation Authority of Nepal**

# Rescue and Fire Fighting Service

## Drill Activity Report Form

Date : ……

| S. N | Drill Name | Time | Name of Crew member | Name of non-participator | Causes | Remarks |
|---|---|---|---|---|---|---|
| | | | | | | |

***Drill Commander:***

Signature :
Name :

Signature: ……

Shift In-Charge:……..

Shift

***Appendix-G***

**Civil Aviation Authority of Nepal**

# Rescue and Fire Fighting Service

# Daily Operational Report Form

Date :……

The deputy-Director
RFFS Division

1. Details of Crew member of :

| S. N | Name and Designation | Remarks | S. N | Name and Designation | Remarks |
|---|---|---|---|---|---|
| 1 | | | 17 | | |
| 2 | | | 18 | | |
| 3 | | | 19 | | |
| 4 | | | 20 | | |
| 5 | | | 21 | | |
| 6 | | | 22 | | |
| 7 | | | 23 | | |
| 8 | | | 24 | | |
| 9 | | | 25 | | |
| 10 | | | 26 | | |
| 11 | | | 27 | | |
| 12 | | | 28 | | |
| 13 | | | 29 | | |
| 14 | | | 30 | | |
| 15 | | | 31 | | |
| 16 | | | 32 | | |

2. Name of Drill Commander: ……

3. Total No. of Crew (Including Shift In-charge):..……

4. No. of staff absent: ……..

5. No. of staff on leave: ……

6. No. of staff weekly R/Off: ……..

7. Water level on overhead tank: ……Liters.

8. Water level on ground tank: ……Liters.

9. Details of RFF Vehicle and Ambulance in Operation :

| S. N | Type of Vehicle | Condition | Remarks | S. N | Type of Vehicle | Condition | Remarks |
|---|---|---|---|---|---|---|---|
| 1. | | | | 8 | | | |
| 2. | | | | 9. | | | |
| 3. | | | | 10. | | | |
| 4. | | | | 11. | | | |
| 5. | | | | 12. | | | |
| 6. | | | | | | | |
| 7. | | | | | | | |

10. Details of Watch Tower Equipment:

*a) V.H.F.* *b) V.H.F*

*c) Inter-com. Telephone: ……* *d) Direct Telephone : …….*

*e) Siren. ……*

*f) P. A. : ……*

*g) Binocular: ……..*

h) Others : ……

i) Stress Important : ……

……..

j) CFR equipment inventory check list is attached herewith.

k) If there is any change in Airport CFR Category caused by shortage of man power or any technical problem of CFR vehicle, Shift in-charge immediately report the concern authority.

l) Deployment of crew for CFR Vehicle, watch tower and Telephone:

Operator:

Commander:

Crews:

Watch Tower Duty:
Watch Tower Supervisor: …….

Watch tower operator: 1……
Telephone Duty…….

Signature: ……..

Name of Shift In-charge: ……

***Appendix-H***

**Civil Aviation Authority of Nepal**

# Rescue and Fire Fighting Service

## FAULT REPORT

**SHEET NO**. **Date**: .....

| S.NO | Facility and Fault Symptoms | Date | Time Detected | Time Reported | Fault Cat | Tech. Ref. No. | Reporting To |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

**Circulation**

Blue -GM TIA
Pink - Flight Operation Chief
Yellow - Mechanical Chief / Radio / Electrical / Civil Maintenance
Red - Division Chief
White - O/C

D**uty Officer**
Shift……

***Appendix-I***

**Civil Aviation Authority of Nepal**

# Rescue and Fire Fighting Service

## FAULT CLEARANCE REPORT

**SHEET NO**. **Date**: ……

| S.N | Facility and Fault Symptoms | Date | Time Cleared | Tech. Ref. No. | Clearing Operations Name |
|---|---|---|---|---|---|
| | | | | | |

**Circulation**

Blue - GM, TIA
Pink - Flight Operation Chief
Yellow- Mechanical Chief / Radio / Electrical / Civil Maintenance
Red - Division Chief
White - O/C

.....
**Shift**

***Appendix-J***

**Civil Aviation Authority of Nepal**

# Rescue and Fire Fighting Service

## Watch Tower Emergency Report Form

Date …….

Information Received from:……..
From:……..
Time:……..

Type of Emergency : ……

ETA of Aircraft : ……..(GMT) …….(LT)

Runway to be used : …….

Aircraft Call Sign : ……

Type of Aircraft : ……

Accident site (In the case of ALERT 1): ……

Amount of Fuel On board : ……..

No. of Passenger and crew : …….

Any cargo of critical significance : …….
Location : ……
Quantity : ……

Turn-out Time :……..
No of used Vehicle :…….
Types of Vehicle:…….
Return back time to station. ……

Details of accident/incident
……
……

Signature : ……..

Name of watch Room Attendance

***Appendix-K***

**Civil Aviation Authority of Nepal**

# Rescue and Fire Fighting Service

## ARFF Personal Evaluation Sheet

***ARFF Personnel Evaluation Skill Test shall be conducted an accordance with the approved Rescue and Fire Fighting Personnel Certification Procedure, 2018.***

***Candidates shall have to be completed their test items as individually or group an accordance with the competency areas. All competency areas are specified to gaining additional knowledge and skilled development of all rescue and fire fighting personnel.***

***Appendix-K (1)***

# Physical Fitness Test Form (Appendix-3)

**Standard Area: Physical Fitness Test**

**Candidate: ……**

**Date: ……**

**Designation …….**

| Standard: ARFF | TASK: A person shall physical fit for rescue and firefighting service | | | | |
|---|---|---|---|---|---|
| Performance Outcome: A person shall demonstrate the ability to perform the jobs. | | | | | |
| S. N. | Task Descriptions | First Test | | Retest | |
| | | Pass | Fail | Pass | Fail |
| 1. | Candidate shall perform a race of 2 km within 12 minute | | | | |
| 2. | Candidate shall perform 15 bent-knees, sit up within 90 sec. | | | | |
| 3. | Candidate shall perform 8 times push-up continuously | | | | |
| 4. | Candidate shall carry load bearing of 50 kg nonstop across the 100 feet distance | | | | |
| 5. | Candidate shall perform the beam walk with hose carry across the 20 feet distance | | | | |
| 6. | Candidate shall perform the Different Physical Training (PT) as per examiner | | | | |

Signature:

Name:

Designation:

Date:

***Appendix-K (2)***

## Evaluation Sheet for Rescue Operation & Fire Fighting (Appendix-4)

**Standard Area: Personal Protective Equipment**

**Candidate's Name:**

**Date:**

**Designation:**

| Standard: ARFF | TASK: A person shall done by Protective Clothing and Respiratory Equipment within two minutes. |
|---|---|
| Performance Outcome: A person shall demonstrate the ability to use PPE within time frame. | |

| S.N | Task Descriptions | First Test | | Retest | |
|---|---|---|---|---|---|
| | | Pass | Fail | Pass | Fail |
| 1. | Sequences of donning methods | | | | |
| 2. | Donning of Protective Clothing | | | | |
| 3. | Donning of face piece | | | | |
| 4. | Donning of backpack assemble | | | | |
| 5. | Storage of PPE | | | | |
| 6. | Recognize of BA cylinder | | | | |
| 7 | Recognize of regulators | | | | |
| 8 | Recognize warning whistle | | | | |
| 9 | Recognize pressure gauge | | | | |
| 10 | Refilling of BA | | | | |

a)

Signature:

Name:

Designation:

Date:

***Appendix-K (3)***

# Evaluation Sheet for Rescue Operation (Appendix-4)

**Standard Area: Rescue Techniques**

**Candidate's Name:**

**Date:**

**Designation:**

| Standard: ARFF | TASK: Rescue operations from the aircraft and building facilities. |
|---|---|

Performance Outcome: A person shall perform the job regarding the rescue operations from the aircraft accident and building fires.

| S.N | Task Descriptions | First Test | | Retest | |
|---|---|---|---|---|---|
| | | Pass | Fail | Pass | Fail |
| 1. | Fireman lift and carry | | | | |
| 2. | Dragging method 20 mtrs. with B.A. | | | | |
| 3. | Fore and aft method | | | | |
| 4. | Assist to walk | | | | |
| 5. | Two hand seat | | | | |
| 6. | Four hand seat | | | | |
| 7. | Stretcher carry | | | | |
| 8. | Rescue from the ladder | | | | |
| 9 | Extremities carry | | | | |
| 10 | Cradle in arms | | | | |

Signature:

Name:

Designation:

Date:

*Appendix-K (4)*

# Evaluation Sheet for Rescue Operation (Appendix-4)

**Standard Area: Aircraft entry Techniques**

**Candidate's Name:**

**Date:**

**Designation:**

| Standard: ARFF | TASK: Gaining access into aircraft fires |
|---|---|

Performance Outcome: A person shall accomplished rescue operations through various entry point through the appropriate technique.

| S.N | Task Descriptions | First Test | | Retest | |
|---|---|---|---|---|---|
| | | Pass | Fail | Pass | Fail |
| 1. | Open the normal door | | | | |
| 2. | Open an emergency exit technique | | | | |
| 3. | Forcible entry techniques | | | | |
| 4. | Use power saw | | | | |
| 5 | Use of other cutting tools | | | | |

Signature:

Name:

Designation:

Date:

*Appendix-K (5)*

# Evaluation Sheet for Rescue Operation (Appendix-4)

**Standard Area: Fire Fighting Technique (Knots and Lines)**

**Candidate's Name:**

**Date:**

**Designation:**

| Standard: ARFF | TASK: Make a various type of knots to be used on RFF service. | | | | |
|---|---|---|---|---|---|
| Performance Outcome: A person shall make a knots as per specified instructions. | | | | | |
| S.N | Task Descriptions | First Test | | Retest | |
| | | Pass | Fail | Pass | Fail |
| 1. | Over hand knot | | | | |
| 2. | Bowline on the bite | | | | |
| 3. | Timber hitch | | | | |
| 4. | Clove hitch | | | | |
| 5. | Cats paw | | | | |
| 6. | Barrel hitch | | | | |
| 7 | Fireman chair knot | | | | |
| 8 | Slippery hitch | | | | |
| 9 | Sheep shank | | | | |
| 10 | Half hitch | | | | |
| 11 | Figure of eight | | | | |
| 12 | Reef knot | | | | |
| 13 | Bowline | | | | |
| 14 | Round turn two half hitch | | | | |
| 15 | Timber hitches | | | | |
| 16 | Fisherman's bends | | | | |
| 17 | Single sheet bend | | | | |
| 18 | Double sheet bands | | | | |
| 19 | Black wall hitches | | | | |
| 20 | Midshipman's hitches | | | | |
| 21 | Running bowlines | | | | |
| 22 | Combination knots | | | | |

Signature:

Name:

Designation:

Date:

***Appendix-K (6)***

# Evaluation Sheet for Fire Fighting (Appendix-4)

**Standard Area: Fire Fighting Technique (Engine fire)**

**Candidate's Name:**

**Date:**

**Designation:**

| Standard: ARFF | TASK: Fighting to the engine fire as standard procedure | | | | |
|---|---|---|---|---|---|
| Performance Outcome: The candidate shall perform the following jobs under the engine fire. | | | | | |
| S.N | Task Descriptions | First Test | | Retest | |
| | | Pass | Fail | Pass | Fail |
| 1. | Hose laying | | | | |
| 2. | Branches fitting | | | | |
| 3. | Holding Branch pipe | | | | |
| 4. | Approaching procedure | | | | |
| 5. | Extinguishing method | | | | |
| 6. | Team coordination | | | | |

Signature:

Name:

Designation:

Date:

***Appendix-K (7)***

# Evaluation Sheet for Fire Fighting (Appendix-4)

**Standard Area: Fire Fighting Technique (under carriage problem)**

**Candidate's Name:**

**Date:**

**Designation:**

| Standard: ARFF | TASK: Cope with undercarriage problem as standard procedure |
|---|---|

Performance Outcome: The candidate shall perform the following job under the under-carriage problem

| S.N | Task Descriptions | First Test | | Retest | |
|---|---|---|---|---|---|
| | | Pass | Fail | Pass | Fail |
| 1. | Hose laying technique | | | | |
| 2. | Branch or nozzle fitting technique | | | | |
| 3. | Holding Branch pipe | | | | |
| 4. | Approaching procedure | | | | |
| 5. | Application of extinguishing agents | | | | |
| 6. | Ability to coordination with team | | | | |

Signature:

Name:

Designation:

Date:

***Appendix-K (8)***

# Evaluation Sheet for Fire Fighting (Appendix-4)

**Standard Area: Fire Fighting Technique (Coverage of Fuselage)**

**Candidate's Name:**

**Date:**

**Designation:**

| Standard: ARFF | TASK: Coverage of the aircraft fuselage as standard procedure. | | | | |
|---|---|---|---|---|---|
| Performance Outcome: The candidate shall perform the job effectively and timely manner. | | | | | |
| S.N | Task Descriptions | First Test | | Retest | |
| | | Pass | Fail | Pass | Fail |
| 1. | Hose laying technique | | | | |
| 2. | Branches fitting technique | | | | |
| 3. | Branch pipe holding technique | | | | |
| 4. | Approaching procedure | | | | |
| 5. | Extinguishing method | | | | |
| 6. | Team coordination | | | | |

Signature:

Name:

Designation:

Date:

# Evaluation Sheet for Rescue Operation and Fire Fighting **(Appendix-4)**

**Standard Area: Fire Fighting Technique (Ladder Drills)**

**Candidate's Name:**

**Date:**

**Designation:**

| Standard: ARFF | TASK: Operations of various type of ladders effectively and timely manner. |
|---|---|

Performance Outcome: Candidate shall able to demonstrate proficiency with various type of ladder.

| S.N | Task Descriptions | First Test | | Retest | |
|---|---|---|---|---|---|
| | | Pass | Fail | Pass | Fail |
| 1. | Slip the ladder | | | | |
| 2. | Pitch the ladder on appropriate place | | | | |
| 3. | Persons shall mounts through the ladder at the appropriate time and technique | | | | |
| 4. | Lowering the ladder | | | | |
| 5. | Extend the ladder | | | | |
| 6. | Persons dismount through the ladder at the appropriate time and technique | | | | |

Signature:

Name:

Designation:

Date:

*Appendix-K (10)*

# Evaluation Sheet for Fire Vehicle Driving/Operation (Appendix-4)

**Standard Area: Fire Vehicle Driving/Operation**

**Candidate's Name:**

**Date:**

**Designation:**

| Standard: ARFF | TASK: Vehicle Driving/operations | | | | |
|---|---|---|---|---|---|
| Performance Outcome: A person shall perform the job regarding with vehicles driving/operations | | | | | |
| S.N | Task Descriptions | First Test | | Retest | |
| | | Pass | Fail | Pass | Fail |
| **1.** | **Vehicle Driving/Operation during the emergencies:** | | | | |
| | Turnouts | | | | |
| | Acceleration-0-80 km/hr within 35 sec | | | | |
| | Braking-stop vehicle from 64 to 0 km/hr less than 40 mtr. | | | | |
| | Braking-stop vehicle from 32 to 0 km/hr less than 12 mtr. | | | | |
| | Parking Brake 64 to 0 km/hr less than 52 mtr. | | | | |
| | Positioning/Response Time | | | | |
| | Attack | | | | |
| | Target to the point from Roof/Bumper Turret | | | | |
| | Check visually in internal and external | | | | |
| **2.** | **Visual Check Internal and external** | | | | |
| **3** | **Visual Check around the Vehicles:** | | | | |
| | Check tyre pressure | | | | |
| | Check Radiator | | | | |
| | Check engine oil | | | | |
| | Check transmission oil | | | | |
| | Check fuel tank | | | | |
| | Check battery | | | | |
| | Check heating system | | | | |
| | Check external air supply system | | | | |
| | Check foam/water tank | | | | |
| **4** | **Sequences of starting vehicle driving/operation system** | | | | |
| | Battery "On" | | | | |
| | Ignition switch "On" | | | | |
| | Select Gear | | | | |
| | Start vehicle | | | | |
| | Fill air up to working pressure | | | | |
| | Release hand brake | | | | |
| | Apply foot brake stop to be vehicle | | | | |
| | Release brake paddle and run vehicle | | | | |

| | | | | | |
|---|---|---|---|---|---|
| | | | | | |
| **5.** | **Positioning vehicle** | | | | |
| | Positioning/Attack | | | | |
| | Target meet from the turret | | | | |
| | Extinguishment and overall | | | | |
| **6.** | **Sequences of Pump Operation System "On"** | | | | |
| | Master switch and Control switch "On" | | | | |
| | Main water valve "On" | | | | |
| | PTO "On" | | | | |
| | Select Water/Foam | | | | |
| | Select outlet Valve | | | | |
| | Increase pressure | | | | |
| **7.** | **Sequences of Pump Operation System "Off"** | | | | |
| | Decrease throttle | | | | |
| | Foam valve "off" | | | | |
| | Close outlet valve | | | | |
| | Close PTO | | | | |
| | Close main water valve | | | | |
| | Stop pump | | | | |
| | Master switch "Off" | | | | |

Signature:

Name:

Designation:

Date:

# Evaluation Sheet for Watch tower Operation (Appendix-4)

**Standard Area: Watch Tower Operation**

**Candidate's Name:**

**Date:**

**Designation:**

| Standard: ARFF | TASK: A person shall handle the Watch tower |
|---|---|

Performance Outcome: A person shall perform the watch tower communication system such as equipment and facilities

| S.N | Task Descriptions | First Test | | Retest | |
|---|---|---|---|---|---|
| | | Pass | Fail | Pass | Fail |
| 1. | Communication skill | | | | |
| 2. | Handling of equipment | | | | |
| 3. | Ability to two way communication | | | | |
| 4. | Use of terminology | | | | |
| 5. | Maintaining log book | | | | |
| 6. | Receive message and relay | | | | |
| 7 | Ability to understand phraseology | | | | |
| 8 | Ability to understand language | | | | |
| 9 | Map reading (Grid map) capability | | | | |
| 10 | General know how about the control room | | | | |

Signature:

Name:

Designation:

Date: