

**ADVANCED EXTERIOR FIRE BRIGADE MEMBER
MANIPULATIVE SKILL OBJECTIVES**

GENERAL

- 1- Utilize a pre-incident plan so that the industrial fire brigade member implements the responses detailed by the plan.**

REFERENCE: NFPA 1081, 2012 Edition, 6.1.2.1, 6.1.2.1(a)(b), 6.1.2.2, 6.1.2.2(a)(b)

CONDITION: Given pre-incident safety plan(s) and an assignment.

COMPETENCE:

- Identify the following on a pre-incident plan
 - Water supply
 - Extinguishing agents (systems)
 - Site specific hazards
 - Automatic fire suppression systems
 - Radio communications, dispatch channel
 - Radio communications, tactical channel
 - Rapid Intervention Crew (RIC)
 - Incident management System structure
- Identify the following Mutual Aid recourse as part of the pre-incident safety plan.
 - Responding team off-site
 - Response time from off-site
 - Public or private organizations responding
 - Interface Personnel Accountability System Plan

TIME: 2:00 Minutes

MANUAL FIRE SUPPRESSION

2- Identify components of thermal protective clothing and demonstrate the donning, doffing and maintenance of equipment.

REFERENCE: NFPA 1081, 2012 Edition, 6.1.2.1, 6.1.2.1(a)(b), 6.1.2.2, 6.1.2.2(a)(b)

CONDITION: Given thermal protective clothing; hood, boots, gloves, coat, and pants.

COMPETENCE:

- Don hood (hood maybe rolled down around collar of coat)
- Don and fasten all closures on pants/boots and coat
- Collar turned up on coat/hood rolled down on collar
- Don helmet and tighten chin strap (helmet ear flaps down)
- Don gloves
- Doff protective clothing and place back in-service

TIME: 1:00 Minute to Don (No time limit for doffing)

3- Identify and describe each component of the Self-Contained Breathing Apparatus (SCBA).

REFERENCE: NFPA 1081, 2012 Edition, 6.2.2, 6.2.2(a)(b)

CONDITION: Given a Self-Contained Breathing Apparatus (SCBA).

COMPETENCE:

- Backpack/harness
- Air cylinder - cylinder, valve, and pressure gauge
- Regulator assembly - high-pressure hose, low-pressure alarm, main line valve, emergency by-pass valve, secondary gauges
- Facepiece assembly - low pressure hose, exhalation valve, and head harness
- PASS device

TIME: 5:00 Minutes

4- Demonstrate the donning of a Self-Contained Breathing Apparatus (SCBA).

REFERENCE: NFPA 1081, 2012 Edition, 6.2.2, 6.2.2(a)(b)

CONDITION: Given thermal protective clothing (Donned) and SCBA.

COMPETENCE:

- Crouch or kneel at SCBA (if donned from ground)
- Check SCBA cylinder pressure gauge (verbalize pressure)
- Open cylinder valve fully
- Don Backpack and fasten/tighten all straps (over-the-head or coat method)
- Don facepiece, adjust head harness, check seal and exhalation valve
- Don protective hood
- Connect regulator to facepiece or low-pressure hose to regulator
- Turn on or ensure PASS is active
- Don helmet, gloves

TIME: 2:00 Minute

5- Demonstrate emergency procedures in the event of SCBA failure by conserving air by skip-breathing technique and controlled breathing technique.

REFERENCE: NFPA 1081, 2012 Edition, 6.2.2, 6.2.2(a)(b)

CONDITION: Wearing full protective clothing and SCBA.

COMPETENCE:

- Inhale normally (as during regular breathing)
- Holds breath (as long as it would take to exhale)
- Inhale again
- Exhale slowly

TIME: 1:00 Minute

6- Demonstrate routine maintenance procedures for an in-service SCBA: Inspect, clean, and sanitize an SCBA system.

REFERENCE: NFPA 1081, 2012 Edition, 6.2.2, 6.2.2(a)(b)

CONDITION: Given an SCBA and cleaning solution specified by manufacturer

COMPETENCE: **Inspection and cleaning of SCBA and Facepiece:**

- Inspect SCBA and facepiece
- Wash facepiece and sanitize (verbalize sanitation procedure)
- Rinse in fresh water, hang to dry
- Wash/rinse backpack (keep water from entering regulator)

Replacement of SCBA Cylinder on SCBA Frame:

- Place SCBA on ground, close cylinder valve
- Obtain full cylinder
- Disconnect regulator from facepiece or low-pressure hose from regulator
- Relieve excess pressure from regulator
- Release clamp on bottle and remove cylinder from frame
- Check pressure on new bottle (verbalize pressure reading)
- Place new cylinder in frame and secure clamp or closure
- Check high-pressure hose O-ring
- Connect high-pressure hose to cylinder
- Open cylinder valve and check for leaks
- Check cylinder and regulator gauges-should read within 100 psi of each other
- Close cylinder valve and relieve excess pressure from regulator, listen for low-pressure alarm
- Fully extend all straps on SCBA backpack
- Fully extend all straps on facepiece

TIME: 5:00 Minutes

7- Attack an exterior fire operating as a member of a team so that team integrity is maintained and the fire is brought under control and all hidden fires are exposed and extinguished.

REFERENCE: NFPA 1081, 2012 Edition, 6.2.3, 6.2.3(a)(b), 6.2.6, 6.2.6(a)(b), 6.2.7, 6.2.7(a)(b), 6.3.2, 6.3.2(a)(b), 6.3.10, 6.3.10(a)(b)

CONDITION: Given a water source, 1½- handline, PPE, SCBA, forcible entry tools or access keys/cards, and an assignment.

COMPETENCE:

- Operate as a member of a team
- Establish a water supply from hydrant, or other source
- Deploy attack line for advancement
- Access is gained to the fire area
- Nozzle is operated in safe manner
- Appropriate fire stream is applied to situation
- Appropriate fire attack is used: direct, indirect, combination
- Fire is extinguished
- Search for hidden fires using; sight, touch, sound, or electronic sensors.
- Feel for heat with the back of ungloved hand.
- With appropriate tool open walls, ceilings, and floors to expose hidden fire.
- Expose void spaces without compromising structural integrity.
- Use water as needed to extinguish hidden fires as found.
- Fire cause evidence is preserved
- Team integrity is maintained during evolution

TIME: 5:00 Minutes

8- Conduct a search and rescue operation as a member of a team so that all victims are located and removed and team integrity is maintained.

REFERENCE: NFPA 1081, 2012 Edition, 6.2.4, 6.2.4(a)(b), 6.2.8, 6.2.8(a)(b), 6.3.10, 6.3.10(a)(b)

CONDITION: Given PPE/SCBA, forcible entry tools, flashlight, 1½- handline and an assignment.

COMPETENCE:

- Operate as a member of a team
- Select correct forcible entry tool(s), force entry as needed
- Enter hazardous area
- Begin primary search pattern (left or right hand)
- Maintains contact with team by sight, hearing or physically
- Maintain contact with IC, notify command of progress
- Locate and remove victims
- Exit hazardous area as a team

TIME: 5:00 Minutes

9- Conserve property while operating as a member of a team so that exposed property and the environment are protected from further damage.

REFERENCE: NFPA 1081, 2012 Edition, 6.2.5, 6.2.5(a)(b), 6.2.6, 6.2.6(a)(b), 6.3.10, 6.3.10(a)(b)

CONDITION: Given special tools, salvage covers, and an assignment.

COMPETENCE:

- Conserve property by using salvage covers deployed over items, building openings covered, automatic sprinkler systems or special protection systems disabled after fire is extinguished

TIME: 5:00 Minutes

10- Operate as a member of a rapid intervention crew (RIC) during firefighting operations in an IDLH or possible IDLH environment exist.

REFERENCE: NFPA 1081, 2012 Edition, 6.2.9, 6.2.9(a)(b)

CONDITION: Given PPE/SCBA, radio, forcible entry tools, flashlight, and an assignment.

COMPETENCE:

- Operate as a member of a RIC
- Conduct size-up of incident and determine equipment needs
- Select correct tools
- Determine staging area
- Monitor operations of IC and interior crews
- Maintains contact with IC
- Initiate rescue operations of down/lost firefighter if needed
- Enter hazardous area
- Conduct rescue operations as needed
- Rescue firefighter and exit hazardous environment to safe area
- Exit hazardous area as a team

TIME: 5:00 Minutes

SITE-SPECIFIC

- 11- Perform a fire safety survey of a facility so that fire and life safety hazards are identified, recommendations for their correction are made and unresolved issues are referred to the proper authority.**

REFERENCE: NFPA 1081, 2012 Edition, 6.3.1, 6.3.1(a)(b) 6.3.2, 6.3.2(a)(b)

CONDITION: Given an assignment, survey forms and procedures.

COMPETENCE:

- Obtain correct form(s) to conduct fire survey and identify the following information on form:
 - Building area, exterior and interior
 - Fire protection systems
 - Life safety issues
 - Flammable liquids storage area
 - Electrical sources and shut offs
 - Built in fire protection barriers
 - Method of access to all areas of facility

TIME: 5:00 Minutes

- 12- Utilize master stream appliance so that the agent is applied to the fire as assigned.**

REFERENCE: NFPA 1081, 2012 Edition, 6.3.3, 6.3.3(a)(b), 6.3.10, 6.3.10(a)(b)

CONDITION: Given an assignment, a master stream device and an extinguishing agent.

COMPETENCE:

- Correctly identify type of master stream device (wagon pipe, deluge set, monitor pipe, ladder pipe)
- Operate master stream device by adjusting water flow, nozzle pattern, angle of stream and location as needed based on assignment
- Open and close appropriate valves and not cause water hammer

TIME: 2:00 Minutes

13- Extinguish an ignitable liquid fire operating as a member of a team so that the correct proportioned foam is selected for the given fuel, applied and the fire is extinguished.

REFERENCE: NFPA 1081, 2012 Edition, 6.3.4, 6.3.4(a)(b), 6.3.10, 6.3.10(a)(b)

CONDITION: Given an assignment, PPE, handline, foam proportioning device, nozzle, foam concentrate, water source and a 4-member team.

COMPETENCE:

- Select nozzle, hose, foam, and water source (Includes proper foam selection for hydrocarbon or polar solvent)
- Positions attack and backup line for suppression activities
- Establish water source
- Assemble foam stream components
- Prepare foam concentrate, verifying type and percentage
- Checks flow of water and removes air in line (Includes flowing until foam appears and matching nozzle gpm setting with eductor gpm requirements)
- Approach fire from upwind position in a safe manner
- Apply agent in method that extinguishes fire, creating foam blanket
- Retreat from the fire/spill in a safe manner maintaining team integrity
- Maintain team communication and integrity

TIME: 2:00 Minutes

14- Control a flammable gas fire operating as a member of a team so that crew integrity is maintained, contents are identified, flammable gas source is controlled or isolated.

REFERENCE: NFPA 1081, 2012 Edition, 6.3.5, 6.3.5(a)(b), 6.3.10, 6.3.10(a)(b)

CONDITION: Given an assignment, PPE, handline, nozzle, water source and a 4-member team.

COMPETENCE:

- Identify emergency exit routes
- Selects nozzle, hose and adequate water source capable of supplying two 250-gpm lines
- Positions attack and backup lines for suppression activities
- Checks flow of water and removes the air in the line
- Approach fire from upwind position if possible
- Uses fire streams to control fire spread and cool tank
- Operates tank control valves to shut off fuel
- Extinguishes fire (only if gas flow is shut off)
- Continues cooling tank while exiting area as a team

TIME: 2:00 Minutes

15- Extinguish an exterior fire using special extinguishing agents (other than foam) while operating as a member of a team so that fire is extinguished.

REFERENCE: NFPA 1081, 2012 Edition, 6.3.6, 6.3.6(a)(b), 6.3.10, 6.3.10(a)(b)

CONDITION: Given an assignment, PPE, SCBA, handline, nozzle, special agent (dry chemical, dry powder or carbon dioxide) and a 2-member team.

COMPETENCE:

- Conduct size-up of scene
- Choose correct extinguisher
- Activate the extinguishing system
- Tests extinguisher prior to approaching fire
- Back-up team in place before proceeding to extinguish fire
- Approach fire in a safe manner (up wind if possible)
- Apply agent in manner that extinguishes fire
- Fire is extinguished and re-ignition prevented
- Exits area as a team, observing conditions

TIME: 2:00 Minutes

16- Interpret alarm conditions so that the alarm condition is correctly interpreted and a response is initiated.

REFERENCE: NFPA 1081, 2012 Edition, 6.3.7, 6.3.7(a)(b)

CONDITION: Given an alarm signaling system, a procedure and an assignment.

COMPETENCE:

- Identify detection system
- Interpret type of alarm; Emergency or Trouble or Supervisory Alarm or Fixed Gas Detection
- Initiate response following procedures of facility

TIME: 2:00 Minutes

17- Activate a fixed fire suppression system so that the correct steps are followed and the system operates.

REFERENCE: NFPA 1081, 2012 Edition, 6.3.8, 6.3.8(a)(b)

CONDITION: Given PPE, a fixed fire protection system, a procedure and an assignment.

COMPETENCE:

- Identify fixed fire suppression system
- Operate controls to monitor, activate, or shutdown system as assigned

TIME: 2:00 Minutes

18- Extinguish a Class C (electrical) fire as a member of a team so that the correct agent is used and the fire is extinguished.

REFERENCE: NFPA 1081, 2012 Edition, 6.3.9, 6.3.9(a)(b)

CONDITION: Given an assignment, PPE, SCBA, a Class C fire-extinguishing appliance/extinguisher, and a 2-person team.

COMPETENCE:

- Conduct size-up of scene
- Verify correct extinguisher
- De-energize electrical equipment involved (lock-out/tag-out)
- Tests extinguisher prior to approaching fire
- Approach fire in a safe manner (up wind if possible)
- Apply agent in manner that extinguishes fire
- Fire is extinguished and re-ignition prevented
- Exits area as a team, observing conditions

TIME: 2:00 Minutes

19- Demonstrate the proper carry, position, raise and lower of straight (roof) or 24 ft. or 35 ft. extension ladder.

REFERENCE: NFPA 1081, 2012 Edition, 6.3.11, 6.3.11(a)(b)

CONDITION: Given an assignment, PPE, Roof Ladder or 24 ft. extension ladder (2-Firefighter team) or 35 ft. extension ladder (4-Firefighter team).

COMPETENCE:

- Start 50 ft. from structure
- Leader gives preparatory commands
- Team lifts with legs
- Proper carry to structure
- Check for overhead obstructions (must verbalize)
- Determine structure stability (must verbalize)
- Raise fly section to proper height
- Determine locks are engaged (must verbalize)
- Tie off halyard
- Check climbing angle
- Lower ladder to ground

TIME: 3:00 Minutes (Lowering ladder not included in time)

20- Demonstrate procedure for climbing, working from, and descending a ladder.

REFERENCE: NFPA 1081, 2012 Edition, 6.3.11, 6.3.11(a)(b)

CONDITION: Given an assignment, PPE, Roof Ladder or 24 ft. extension ladder (2-Firefighter team) or 35 ft. extension ladder (4-Firefighter team).

SAFETY ALERT: LADDER HEELED BY SECOND FIREFIGHTER OR TIED OFF

COMPETENCE:

- Check climbing angle of ladder
- Climb with arms straight, body perpendicular to the ground
- Climb smoothly and rhythmically
- Maintain three points of contact with ladder while climbing
- Carry tool properly
- Lock-in around rung or use safety harness
- Lock-in on opposite side from the working side

TIME: 2:00 Minute

21- Demonstrate the proper method for extending a charged hose line.

REFERENCE: NFPA 1081, 2002 Edition, 6.2.3, 6.2.3(a)(b)

CONDITION: Wearing full protective clothing, 150 ft. of 1 1/2" or larger hose, hose clamp, nozzle, 2-Firefighter team.

COMPETENCE:

- Clamp hose approx. 3 feet behind nozzle, remove nozzle
- Add 50' section of hose
- Replace nozzle and charge hoseline slowly

TIME: 1:00 Minute

22- Demonstrate the proper method for replacing a burst section of hose.

REFERENCE: NFPA 1081, 2012 Edition, 6.2.3, 6.2.3(a)(b)

CONDITION: Wearing full protective clothing, 150 ft. of 1 1/2" or larger hose, hose clamp, nozzle, 2-Firefighter team.

COMPETENCE:

- Clamp hose approx. 3 feet behind coupling
- Drain hose at nozzle
- Replace 2 sections for one burst section
- Remove hose clamp and charge hoseline slowly

TIME: 2:00 Minutes