

NFPA 1081 Standard for Industrial Fire Brigade Member Professional Qualifications Advanced Exterior Industrial Fire Brigade Member - Chapter 6		
Module 1 - Firefighter Safety and Survival		
<i>Terminal Objective - Upon the successful completion of this module, participants will be able to explain risk factors in fire fighting and general safety techniques.</i>		
Enabling Objectives	JPR	Verification
1. Describe the most common causes of firefighter injuries and deaths.		
2. Explain methods for preventing accidents.	JPR 6.3.1	
3. Identify potential long-term consequences of exposure to products of combustion.	JPR 6.2.3	
4. Explain the safety role of the Rapid Intervention Team/Rapid Intervention Crew (RIT/RIC) in an emergency situation.	JPR 6.2.9	
5. Explain Rescue, Exposure, Containment, Extinguishment, and Overhaul (RECEO) and its role in safety.	JPR 6.2.3	
6. Discuss the educational and human behavioral components that impact safety and survival in the fire fighting profession.		
7. Explain the difference between intervention and mitigation.		
8. Discuss basic atmospheric monitoring equipment and when it should be used.	JPR 6.2.9	
9. Explain the importance of personnel accountability systems and their use.	JPR 6.2.8	
10. Identify facility emergency evacuation signals.	JPR 5.1.2.2 and 6.3.7	
11. Describe emergency evacuation methods.	JPR 6.2.2	
12. Define safe haven.	JPR 5.2.3	
Module 2 - Fire Behavior		
<i>Terminal Objective - Upon the successful completion of this module, participants will be able to explain the types of fire, how they behave, and how firefighter's actions affect fire behavior.</i>		
Enabling Objectives	JPR	Verification
1. Describe the fire tetrahedron.	JPR 5.1.2	
2. Define fire Classes A, B, C, D, and K.	JPR 5.1.2	
3. Identify the risks associated with each class of fire.	JPR 5.1.2	
4. Describe the effect of oxygen on fire's behavior.	JPR 5.1.2	
5. Define key terms and concepts related to fire and fire behavior.	JPR 5.1.2	
6. Identify dangerous conditions caused by a fire.	JPR 5.1.2	
7. Identify and discuss the stages of fire.	JPR 5.1.2	
8. List the physical states of matter in which fuels are found.	JPR 5.1.2	
Module 3 - Communications and Incident Reports		
<i>Terminal Objective - Upon the successful completion of this module, participants will be able to describe procedures for efficient and effective communication during emergency and non-emergency situations.</i>		
Enabling Objectives	JPR	Verification
1. Identify the procedures for reporting an emergency.	JPR 5.1.2.1 and 6.3.7	
2. Explain the importance of knowing a facility layout, special hazards, and emergency response procedures.	JPR 5.1.2.3 and 6.3.1	
3. Identify the content requirements for basic incident reports.	JPR 5.1.2.5	
4. Explain the purpose and value of accurate incident reports.	JPR 5.1.2.5	
5. Describe how to obtain necessary information for completing the incident report.	JPR 5.1.2.5	
6. Identify facility communication procedures and etiquette for routine and emergency traffic.	JPR 5.1.2.2 and 6.3.7	

Module 4 - Personal Protective Equipment (PPE)		
<i>Terminal Objective - Upon the successful completion of this module, participants will be able to use Personal Protective Equipment (PPE) safely and effectively.</i>		
Enabling Objectives	JPR	Verification
1. List the items that constitute protective clothing worn by all fire brigade personnel.	JPR 6.2.1	
2. Identify advantages and disadvantages of personal protective clothing.	JPR 6.2.1	
3. Name the hazards that protective clothing is designed to protect against.	JPR 6.2.1	
4. State the proper care and maintenance guidelines for each item of protective clothing.	JPR 6.2.9	
Module 5 - Portable Fire Extinguishers		
<i>Terminal Objective - Upon the successful completion of this module, participants will be able to use a portable fire extinguisher to extinguish a fire safely and effectively</i>		
Enabling Objectives	JPR	Verification
1. Identify the symbols used for the five classifications of fire.	JPR 5.2.1	
2. Identify types of portable fire extinguishers.	JPR 5.2.1, 6.3.9, and 6.3.10	
3. Describe the ratings system for portable fire extinguishers.	JPR 5.2.1, 6.3.9, and 6.3.10	
4. Identify limitations of portable fire extinguishers.	JPR 5.2.1, 6.3.9, and 6.3.10	
5. Explain the operating procedures for portable fire extinguishers.	JPR 5.2.1, 6.3.9, and 6.3.10	
6. Discuss inspections, maintenance, and testing of portable fire extinguishers.	JPR 5.2.1, 6.3.9, and 6.3.10	
7. Demonstrate the ability to select, carry, and operate portable fire extinguishers using the appropriate extinguisher based on the fire size and type.	JPR 5.2.1, 6.3.9, and 6.3.10	
Module 6 - Self-Contained Breathing Apparatus (SCBA)		
<i>Terminal Objective - Upon the successful completion of this module, participants will be able to use a Self-Contained Breathing Apparatus (SCBA) safely and effectively.</i>		
Enabling Objectives	JPR	Verification
1. Name the conditions that require respiratory protection.	JPR 6.2.2	
2. Identify the limitations of SCBA units and users.	JPR 6.2.2	
3. List the components of SCBA.	JPR 6.2.2	
4. Explain breathing techniques for use with SCBA.	JPR 6.2.2	
5. Identify emergency procedures used with SCBA.	JPR 6.2.2	
6. Describe the donning and doffing procedures used with SCBA.	JPR 6.2.2	
7. Recognize the physical requirements of the SCBA user.	JPR 6.2.2	
8. Describe the purpose of Personal Alert Safety System (PASS) devices.	JPR 6.2.2	
9. Demonstrate the proper use of PASS devices.	JPR 6.2.2	
10. Demonstrate the ability to control breathing.	JPR 6.2.2	
11. Use SCBA in limited visibility conditions.	JPR 6.2.2	
12. Demonstrate the ability to replace SCBA air cylinders within specified time limits.	JPR 6.2.2	
13. Use SCBA to exit through restricted passages.	JPR 6.2.2 and 6.2.4	
14. Complete donning and doffing procedures within specified time limits.	JPR 6.2.2	
15. Inspect SCBA and Personal Protective Equipment (PPE).		
Module 7 - Fire Hose and Water Supply		
<i>Terminal Objective - Upon the successful completion of this module, participants will be able to use fire hoses of various sizes to extinguish an exterior fire safely and effectively.</i>		

Enabling Objectives	JPR	Verification
1. Identify the types, sizes, and applications of hand lines used for attacking incipient and advanced exterior fires.	JPR 6.2.3	
2. Discuss precautions to be followed when advancing hand lines to a fire.	JPR 6.2.3	
3. Describe the types, design, operation, nozzle pressure effects, and flow capabilities of nozzles.	JPR 6.2.3	
4. Describe the principles of fire streams.	JPR 6.2.3	
5. Identify the observable results that a fire stream has been properly applied.	JPR 6.2.3	
6. Identify fire and hose tools and appliances, and explain their function.	JPR 6.2.3	
7. Describe attack and control techniques.	JPR 6.2.3	
8. Explain water sources available for facility use.	JPR 6.2.7	
9. Describe the correct operation of site water supply components.	JPR 6.2.7	
10. Explain basic hydraulic principles.	JPR 6.2.7	
11. Explain the effect of mechanical damage and temperatures on the operability of the water supply source.	JPR 6.2.7	
Module 8 - Master Streams, Salvage, and Overhaul		
<i>Terminal Objective - Upon the successful completion of this module, participants will be able to use master streams and demonstrate proper salvage and overhaul techniques safely and effectively.</i>		
Enabling Objectives	JPR	Verification
1. Discuss the uses, tactics, and safe operations of master streams.	JPR 6.3.3	
2. Explain the selection of master stream appliances for different fire situations.	JPR 6.3.3	
3. Discuss the effect that master stream appliances have on search and rescue.	JPR 6.3.3	
4. Explain the principles of exposure protection.	JPR 6.2.3	
5. Explain the effects of master streams on property conservation.	JPR 6.3.3	
6. Explain the purpose of property conservation and its value to the organization.	JPR 6.2.5	
7. Describe methods used to protect property.	JPR 6.2.5	
8. Describe the potential effect of master streams on the environment.	JPR 6.2.5	
9. Discuss types of salvage covers.	JPR 6.2.5	
10. Identify types of fire attack lines and water application devices that are most effective for overhaul.	JPR 6.2.6	
11. Identify types of tools and methods used to expose hidden fire.	JPR 6.2.6	
12. Describe dangers associated with overhaul.	JPR 6.2.6	
13. Describe the signs of areas of origin or arson.	JPR 6.2.6	
14. Discuss the importance of preserving fire cause evidence.	JPR 6.2.6	
15. Demonstrate how to put a master stream appliance into service.	JPR 6.3.3	
16. Demonstrate how to correctly deploy covering materials.	JPR 6.2.5	
Module 9 - Foam		
<i>Terminal Objective - Upon the successful completion of this module, participants will be able to use foam to extinguish an exterior fire safely and effectively.</i>		
Enabling Objectives	JPR	Verification
1. Explain the methods where foam prevents or controls a hazard.	JPR 6.3.4	
2. Discuss the principles that generate foam.	JPR 6.3.4	
3. Identify the causes for poor foam generation and corrective measures.	JPR 6.3.4	
4. Explain the difference between hydrocarbon and polar solvent fuels and the concentrates that work on each.	JPR 6.3.4	
5. Describe the characteristics, uses, and limitations of fire fighting foams.	JPR 6.3.4	
6. List the advantages and disadvantages of using fog versus air aspirating nozzles for foam application.	JPR 6.3.4	
7. Discuss foam stream application techniques.	JPR 6.3.4	

8. Identify hazards associated with foam usage and methods for reducing or eliminating hazards.	JPR 6.3.4	
9. Prepare a foam concentrate supply for use.	JPR 6.3.4	
10. Demonstrate the ability to assemble foam stream components.	JPR 6.3.4	
11. Employ various foam application techniques.	JPR 6.3.4	
12. Demonstrate the ability to approach and retreat from fires/spills as a part of a coordinated team.	JPR 6.3.4	
Module 10 - Fixed Fire Protection Systems		
<i>Terminal Objective - Upon the successful completion of this module, participants will be able to operate a fixed fire protection system safely and effectively.</i>		
Enabling Objectives	JPR	Verification
1. Define fixed fire protection systems.	JPR 6.3.8	
2. Name the types of extinguishing agents.	JPR 6.3.8	
3. Describe system overrides and manual intervention procedures.	JPR 6.3.8	
4. Describe the hazards associated with fixed system operation.	JPR 6.3.8	
5. Discuss fixed system operation.	JPR 6.3.8	
6. Describe the effect of automatic sprinkler systems on property conservation.	JPR 6.2.5	
7. Describe shutdown procedures.	JPR 6.3.8	
8. Identify different alarm detection systems within a facility.	JPR 6.3.7	
9. Explain the difference between alarm, trouble, and supervisory alarms.	JPR 6.3.7	
10. Identify the hazards protected by the detection systems.	JPR 6.3.7	
11. Identify the hazards associated with each type of alarm condition.	JPR 6.3.7	
12. Operate a fixed fire protection system via mechanical means and properly shut down and reset fixed fire suppression systems.	JPR 6.3.8	
Module 11 - Ladders		
<i>Terminal Objective - Upon the successful completion of this module, participants will be able to use ladders safely and effectively.</i>		
Enabling Objectives	JPR	Verification
1. Identify the parts of a ladder.	JPR 6.3.11	
2. Explain what constitutes a stable foundation for ladder placement.	JPR 6.3.11	
3. Explain what constitutes a reliable structural component for top placement.	JPR 6.3.11	
4. Determine different angles required for various tasks.	JPR 6.3.11	
5. Discuss the safety limits related to the degree of angulation of a ladder.	JPR 6.3.11	
6. Describe the hazards associated with setting up ladders.	JPR 6.3.11	
7. Carry, raise, and extend ladders.	JPR 6.3.10 and 6.3.11	
8. Lock flies.	JPR 6.3.11	
9. Determine that a wall and roof will support the ladder.	JPR 6.3.11	
10. Assess extension ladder height requirements.	JPR 6.3.11	
11. Place the ladder to avoid obvious hazards.	JPR 6.3.10 and 6.3.11	
Module 12 - Incident Command System (ICS)		
<i>Terminal Objective - Upon the successful completion of this module, participants will be able to explain how to function effectively within the Incident Command System (ICS).</i>		
Enabling Objectives	JPR	Verification
1. Describe the concepts and principles of the National Incident Management System (NIMS).	JPR 4.3.11 and 6.1.1	
2. Identify the components of NIMS.	JPR 4.3.11 and 6.1.1	
3. Identify five major management functions of ICS.	JPR 4.3.11 and 6.1.1	

4. Describe the purpose of unique position titles in ICS.	JPR 4.3.11 and 6.1.1	
5. Discuss the importance of operating within the site emergency response plan (ERP), site Standard Operating Procedures (SOP) and safety procedures, and the Incident Action Plan (IAP).	JPR 5.1.2	
6. Describe the basic organization of ICS, and explain the functional roles and responsibilities of the command and general staffs.	JPR 4.3.11 and 6.1.1	
7. Determine when it is appropriate to institute a unified or area command.	JPR 4.3.11 and 6.1.1	
Module 13 - Considerations for Effective Response (Team Testing)		
<i>Terminal Objective - Upon the successful completion of this module, participants will be able to demonstrate (3) the ability to safely and effectively extinguish an exterior fire.</i>		
Enabling Objectives	JPR	Verification
1. Name the five components of the response process.		
2. Explain the purpose of the fire preplan.	JPR 6.1.2.1	
3. Identify the components of a fire preplan.	JPR 6.1.2.1	
4. Discuss reading site drawings.	JPR 6.3.2	
5. Identify forcible entry tools.	JPR 6.3.2	
6. Identify common symbols used in diagramming construction features, utilities, hazards, and fire protection systems.	JPR 6.3.2	
7. Explain the purpose of the site safety survey.	JPR 6.3.1	
8. Identify special considerations for responding to incidents involving civil unrest, Weapons of Mass Destruction (WMD), or acts of terrorism.	JPR 4.3.10 and 6.1.1	
9. Describe access procedures.	JPR 6.3.2	
10. Identify site-specific hazards such as access to areas restricted by rail car movement, fences, and walls, and areas of low overhead clearance.	JPR 6.3.2	
11. Explain procedures associated with special hazard areas such as electrical substation, radiation hazard areas, and others specific to the site.	JPR 6.3.2	
12. Recognize areas on roadways having load restrictions and access hazards presented by gates.	JPR 6.3.2	
13. Identify access routes to water supplies, hazardous materials locations, and electrical equipment locations.	JPR 6.3.2	
14. Recognize inherent hazards related to the material's configuration.	JPR 5.3.1	
15. Identify response hazards.	JPR 5.1.2.3	
16. Demonstrate the ability to complete forms, recognize hazards, match findings to pre-approved recommendations, and effectively communicate findings to the proper authority.		
17. Safely use each piece of provided response equipment.	JPR 5.1.2.3	
18. Implement the response.	JPR 5.1.2.3	
19. Operate facility communication equipment.	JPR 5.1.2.5	
20. Relay and record information.	JPR 5.1.2.2	
21. Use Self-Contained Breathing Apparatus (SCBA) in a live fire situation.		
22. Determine a fire's growth and development.	JPR 6.3.3	
23. Attack fires.	JPR 6.2.3	
24. Operate the site water supply components and identify damage or impairment.	JPR 5.3.1 and 6.2.7	
25. Evaluate and modify water application for maximum penetration.	JPR 5.3.1	