

NFPA 1081 Standard for Industrial Fire Brigade Member Professional Qualifications Interior Structural Industrial Fire Brigade Member - Chapter 7		
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 7.1.2.1	
2. Identify advantages and disadvantages of personal protective clothing.	JPR 7.1.2.1	
3. Name the hazards that protective clothing is designed to protect against.	JPR 7.1.2.1	
4. State the proper care and maintenance guidelines for each item of protective clothing.	JPR 7.2.10	
Module 5 - 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 7.1.2.2	
2. Identify the limitations of SCBA units and users.	JPR 7.1.2.2	
3. List the components of SCBA.	JPR 7.1.2.2	
4. Explain breathing techniques for use with SCBA.	JPR 7.1.2.2	
5. Identify emergency procedures used with SCBA.	JPR 7.1.2.2	
6. Describe the donning and doffing procedures used with SCBA.	JPR 7.1.2.2	
7. Recognize the physical requirements of the SCBA user.	JPR 7.1.2.2	
8. Describe the purpose of Personal Alert Safety System (PASS) devices.	JPR 7.1.2.2	
9. Demonstrate the proper use of PASS devices.	JPR 7.1.2.2	
10. Demonstrate the ability to control breathing.	JPR 7.1.2.2	
11. Use SCBA in limited visibility conditions.	JPR 7.1.2.2	
12. Demonstrate the ability to replace SCBA air cylinders within specified time limits.	JPR 7.1.2.2	
13. Use SCBA to exit through restricted passages.	JPR 7.2.8	
14. Complete SCBA and Personal Protective Equipment (PPE) donning and doffing procedures within specified time limits	JPR 7.1.2.1 and 7.1.2.2	
15. Inspect SCBA and Personal Protective Equipment (PPE).	JPR 7.1.2.1 and 7.2.10	
Module 6 - 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, 7.3.7, 7.3.11	
3. Describe the ratings system for portable fire extinguishers.	JPR 5.2.1, 7.3.11	
4. Identify limitations of portable fire extinguishers.	JPR 5.2.1, 7.3.11	
5. Explain the operating procedures for portable fire extinguishers.	JPR 5.2.1, 7.3.11	
6. Discuss inspections, maintenance, and testing of portable fire extinguishers.	JPR 5.2.1, 7.3.7, 7.3.11	
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, 7.3.7, 7.3.11	
Module 7 - 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 7.3.8	
2. Explain what constitutes a stable foundation for ladder placement.	JPR 7.3.8	

3. Explain what constitutes a reliable structural component for top placement.	JPR 7.3.8	
4. Determine different angles required for various tasks.	JPR 7.3.8	
5. Discuss the safety limits related to the degree of angulation of a ladder.	JPR 7.3.8	
6. Describe the hazards associated with setting up ladders.	JPR 7.3.8	
7. Demonstrate the ability to lock flies and to carry, raise, and extend ladders.	JPR 7.3.7, 7.3.8	
8. Determine that a wall and roof will support the ladder.	JPR 7.3.8	
9. Assess extension ladder height requirements.	JPR 7.3.8	
10. Demonstrate the ability to place the ladder to avoid obvious hazards.	JPR 7.3.7, 7.3.8	
Module 8 - Preplanning and Site Safety Surveys		
<i>Terminal Objective - Upon the successful completion of this module, participants will be able to explain the purpose of site preplans and fire safety surveys.</i>		
Enabling Objectives		JPR Verification
1. Name the five components of the response process.	JPR 5.1.2.1, 7.1.2.3	
2. Explain the purpose of the fire preplan.	JPR 7.1.2.3	
3. Identify the components of a fire preplan.	JPR 7.1.2.3	
4. Explain the purpose of the site safety survey.	JPR 7.3.10	
5. Identify common areas to survey when performing a fire safety survey.	JPR 7.3.10	
Module 9 - 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, 7.1.1	
2. Identify the components of NIMS.	JPR 4.3.11, 7.1.1	
3. Identify five major management functions of ICS.	JPR 4.3.11, 7.1.1	
4. Describe the purpose of unique position titles in ICS.	JPR 4.3.11, 7.1.1	
5. Discuss the importance of operating within the site Emergency Response Plan (ERP), site Standard Operating Procedures (SOP) and safety procedures, and 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, 7.1.1	
7. Determine when it is appropriate to institute a unified or area command.	JPR 4.3.11, 7.1.1	
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 <i>fixed fire protection systems</i> .	JPR 7.3.2	
2. Name the types of extinguishing agents.	JPR 7.3.2	
3. Describe system overrides and manual intervention procedures.	JPR 7.3.2	
4. Describe the hazards associated with fixed system operation.	JPR 7.3.2	
5. Discuss fixed system operation.	JPR 7.3.2	
6. Describe the effect of automatic sprinkler systems on property conservation.	JPR 7.2.9	
7. Describe shutdown procedures.	JPR 7.3.2	
8. Identify different alarm detection systems within a facility.	JPR 7.3.1	
9. Explain the difference between alarm, trouble, and supervisory alarms.	JPR 7.3.1	
10. Identify the hazards protected by the detection systems.	JPR 7.3.1	
11. Identify the hazards associated with each type of alarm condition.	JPR 7.3.1	

Module 11 - Fire Hose, Water Supply, and Master Streams		
<i>Terminal Objective - Upon the successful completion of this module, participants will be able to use fire hoses and/or master streams to extinguish an interior fire safely and effectively.</i>		
Enabling Objectives	JPR	Verification
1. Identify types, sizes, and applications of hand lines used for attacking incipient and advanced interior fires.	JPR 7.2.1	
2. Describe the types, design, operation, nozzle pressure effects, and flow capabilities of nozzles.	JPR 7.2.1	
3. Describe the principles of fire streams.	JPR 7.2.1	
4. Identify the observable results that a fire stream has been properly applied.	JPR 7.2.1	
5. Identify fire and hose tools and appliances and explain their function.	JPR 7.2.1	
6. Describe attack and control techniques.	JPR 7.2.1	
7. Explain water sources available for facility use.	JPR 7.2.6	
8. Describe the correct operation of site water-supply components.	JPR 7.2.6	
9. Explain basic hydraulic principles.	JPR 7.2.6	
10. Explain the effect of mechanical damage and temperatures on the operability of the water-supply source.	JPR 7.2.6	
11. Discuss the uses, tactics, and safe operations of master streams.	JPR 7.3.3	
Module 12 - Ventilation		
<i>Terminal Objective - Upon the successful completion of this module, participants will be able to explain the principles of proper ventilation and perform (3) ventilation procedures on structures.</i>		
Enabling Objectives	JPR	Verification
1. Explain the principles of ventilation.	JPR 7.2.3	
2. Identify advantages and limitations of horizontal and vertical ventilation.	JPR 7.2.3	
3. Distinguish between negative and positive pressure ventilation.	JPR 7.2.3	
4. Explain the process behind vertical and horizontal ventilation.	JPR 7.2.3	
5. Identify the types of ventilation and methods for performing ventilation in structures.	JPR 7.2.3	
6. Name factors that may affect ventilation.	JPR 7.2.3	
7. Describe the effects that master streams have on ventilation.	JPR 7.2.3	
8. Identify safety considerations when venting a structure.	JPR 7.2.3	
Module 13 - Salvage and Overhaul Operations		
<i>Terminal Objective - Upon the successful completion of this module, participants will be able to apply safe and effective overhaul and salvage procedures following the mitigation of a fire incident.</i>		
Enabling Objectives	JPR	Verification
1. Describe several methods used to protect property in an industrial setting.	JPR 7.2.4	
2. Describe methods used to clean, inspect, and repair salvage covers.	JPR 7.2.4	
3. Describe the potential effect of master streams on property conservation and the environment.	JPR 7.2.4	
4. Identify the tools utilized in overhaul operations.	JPR 7.2.4	
5. List methods for detecting hidden fires.	JPR 7.2.4	
6. Identify dangers associated with overhaul process.	JPR 7.2.4	
7. Identify fire attack lines and application devices most effective for overhaul.	JPR 7.2.4	
8. Describe application methods for extinguishing agents that will limit damage.	JPR 7.2.4	
9. Recognize obvious signs of area of origin or arson and explain (2) the reasons for protecting the fire scene.	JPR 7.2.4	
10. Perform overhaul of fire area.	JPR 7.2.4	

11. Demonstrate the use of salvage covers.	JPR 7.2.4	
Module 14 - Forcible Entry		
<i>Terminal Objective - Upon the successful completion of this module, participants will be able to describe how to use tools to force entry, remove barriers, and ensure that the opening is in a safe condition and ready for entry.</i>		
Enabling Objectives	JPR	Verification
1. Identify common forcible entry tools.	JPR 7.2.2	
2. Identify basic construction of windows, doors, and walls within a structure.	JPR 7.2.2	
3. Explain operation of doors, windows, and locking mechanisms.	JPR 7.2.2	
4. Identify the dangers associated with forcible entry.	JPR 7.2.2	
5. Describe three basic methods for forcing entry.	JPR 7.2.2	
Module 15 - Flammable Gases, Liquids, and Foam		
<i>Terminal Objective - Upon the successful completion of this module, participants will be able to explain the characteristics of flammable gases and liquids, and use foam to extinguish a fire safely and effectively.</i>		
Enabling Objectives	JPR	Verification
1. Identify the characteristics and terms associated with flammable gases.	JPR 7.3.5	
2. State the effects that heat and pressure have on flammable gases and the indicators of a possible Boiling Liquid Expanding Vapor Explosion (BLEVE).	JPR 7.3.5	
3. Explain methods where foam prevents or controls a hazard.	JPR 7.3.4	
4. Discuss the principles that generate foam.	JPR 7.3.4	
5. Identify the causes for poor foam generation and corrective measures.	JPR 7.3.4	
6. Explain the difference between hydrocarbon and polar solvent fuels and the concentrates that work on each.	JPR 7.3.4	
7. Describe the characteristics, uses, and limitations of fire fighting foams.	JPR 7.3.4	
8. List the advantages and disadvantages of using fog versus air aspirating nozzles for foam application.	JPR 7.3.4	
9. Discuss foam stream application techniques.	JPR 7.3.4	
10. Identify hazards associated with foam usage and methods for reducing or eliminating hazards.	JPR 7.3.4	
11. Prepare a foam concentrate supply for use.	JPR 7.3.4	
12. Demonstrate foam stream component assembly techniques.	JPR 7.3.4	
13. Employ various foam application techniques.	JPR 7.3.4, 7.3.11	
Module 16 - Interior Fire Operations		
<i>Terminal Objective - Upon the successful completion of this module, participants will be able to demonstrate the ability to safely and effectively attack and control interior fires.</i>		
Enabling Objectives	JPR	Verification
1. Identify the purpose and elements of scene size up.	JPR 7.2.1	
2. Explain the difference between offensive and defensive strategy modes.		
3. Discuss the distinction between the strategy and the tactical attack plan.		
4. Explain basic building construction.		
5. Recognize signs of impending building collapse.		
6. Identify safe zones in the event of a building collapse.	JPR 7.2.10	
7. Explain primary and secondary search techniques used in search and rescue operations.	JPR 7.2.8	
8. Identify three methods of fire attack.	JPR 7.2.1	
9. Discuss precautions to be followed when advancing hand lines to a fire.	JPR 7.1.2.2, 7.2.1	

10. Identify special response considerations for responding to incidents such as those involving Hazardous Materials (HazMat) or Weapons of Mass Destruction (WMD).	JPR 4.3.10	
11. Demonstrate approach and retreat from fires as part of a coordinated team.	JPR 7.3.4	