

**COMPETENCY MODEL FOR  
APPARATUS OPERATOR  
CLASS CODE 2121**

The following competencies have been identified as those that best separate superior from satisfactory job performance in the class of **APPARATUS OPERATOR**. (Numbers refer to the order of competencies in the Competency Bank.)

- 8. Safety Focus
- 10. Physical Capability
- 13. Stress Tolerance
- 20. Job Knowledge
- 23. Equipment Operation
- 35. Teamwork
- 45. Oral Communication
- 53. Leadership

On the following pages are descriptions of each competency, including a definition, the level of the competency required for the class (*italicized*, **bolded**, and underlined), examples of behavioral indicators, and satisfactory and superior performance levels.

**8. SAFETY FOCUS** – Performs work in a way that minimizes risk of injury to self or others.

Level of Competency Required by Job:

Level 1: Maintain awareness of unsafe conditions and actions to avoid injury.

Level 2: Follow safety rules/procedures; avoid known hazards in the work environment.

**Level 3: Carefully follow safety rules and procedures and consistently use all necessary safety equipment.**

Examples of Behavioral Indicators:

- Wears seat belt.
- Ensures safe physical work environment by taking actions such as eliminating unstable stacks of materials, closing drawers so filing cabinets will not tip over, and keeping pathways clear of tripping hazards.
- Reviews safety procedures before beginning each job with known hazards.
- Follows safety procedures while performing work even when it takes more time.
- Uses safety equipment such as goggles, gloves, and earplugs as required or warranted.
- Frequently checks safety equipment for proper condition and operation.

Performance Levels:

Satisfactory

Maintains awareness of personal safety to avoid injury or property damage during all work activities.

Superior

“Safety first.” Places avoidance of injury or property damage above all other job requirements. Mentions the need to follow safe work practices to co-workers. Actively seeks ways to avoid injury.

## **Safety Focus Areas**

1. Knowledge of the specific components of each apparatus necessary to inspect for excessive wear or breakage in order to be aware of any repairs that are needed to maintain the apparatus, aerial ladder and their components in proper working condition.
2. Knowledge of the proper cleaning process for applying various de-greaser to the apparatus, its tools, and equipment as necessary to maintain the apparatus in readiness to respond to any emergency.
3. Knowledge of the California Motor Vehicle Code as it pertains to the safe and legal operation of heavy fire apparatus on public streets.
4. Knowledge of how to clean and sterilize medical equipment using disinfectants such as bleach and water and alcohol-based compounds, in compliance with Volume 3 of the LAFD Manual of Operations and Safety Bulletin #10, in order to always have equipment available for rescue situations.
5. Knowledge of the Los Angeles City Fire Code as required to participate in company fire prevention and/or pre-incident planning activities such as making inspections or walk-throughs, advising property owners or responsible persons regarding the nature of violations and how to correct them, and issuing notices.
6. Knowledge of forcible entry techniques and tools such as use of various saws, bolt cutters, sledgehammers, and battering rams, as contained in Volume 3 of the LAFD Manual of Operations and LAFD Training Bulletins, as required to provide access and egress for firefighters and civilians.
7. Knowledge of physical rescue techniques such as extrication, cribbing, and the use of tools such as Holmatro tool, air bags, cutting torches, two-line rope system, and litter baskets, as contained in LAFD Training Bulletins sufficient to safely perform rescues such as physical extrications of trapped persons, hillside and cliff rescues, and rescues from burning buildings.
8. Knowledge of the construction of automobiles, trucks, and light rail and Metrorail vehicles, as contained in the LAFD Training Bulletins, including how to de-energize rapid transit electrical systems, sufficient to safely perform extrications (removal of the vehicle from around the victim) following accidents.
9. Knowledge of emergency medical procedures such as CPR, control of bleeding, oxygen administration, and splinting broken bones, as contained in the LAFD EMS Field Manual sufficient to administer emergency medical treatment independently or as part of a team.

10. Knowledge of urban search and rescue, Rapid Intervention Company (RIC), and Mayday procedures such as use of the one inch hose line, drop bag, rope systems, and self-rescue techniques sufficient to perform search and rescue or function as a RIC team leader in order to safely and quickly locate persons trapped or missing.

**10. PHYSICAL CAPABILITY** – Strength, endurance, flexibility, and/or coordination.

Level of Competency Required by Job:

Level 1: Sitting and/or standing for extended periods of time.

**Level 2: Awkward body position and/or precise motions required; and/or repeated lifting, carrying, and/or manipulation of objects; and/or walking for extended periods of time.**

Level 3: Continuous or extreme exertion of physical effort.

Examples of Behavioral Indicators:

- Sits and may occasionally stand or walk for entire workday (except breaks).
- Walks for the duration of the workday.
- Repetitive motion required to perform task.
- Repeatedly lifts and carries heavy objects.
- Exerts maximal effort for extended periods of time.

Performance Levels:

Satisfactory

Performs tasks requiring physical capability satisfactorily and without undue physical stress or harm.

Superior

Performs tasks requiring physical capability correctly with relative ease. May be asked to perform the most physically demanding tasks or be sought by co-workers for assistance.

**13. STRESS TOLERANCE** – Maintains effective performance when under pressure, confronted with opposition or criticism, and/or when the situation is dangerous.

Level of Competency Required by Job:

Level 1: Assignment may include varied or heavy workload; new tasks may need to be learned; members of the public and, at times, co-workers may be rude.

Level 2: Insufficient staff or resources may be available to accomplish work. Priorities/objectives may be unclear and/or direction uncertain. Role ambiguity regarding responsibilities may exist. May encounter disagreement or criticism when performing job activities.

**Level 3: Presentation and defense of position in a public forum, which at times entails facing opposition, may be required. Work environment may be fast-paced and one in which urgent decisions must be made. Making life-or-death decisions may be necessary.**

Examples of Behavioral Indicators:

- Remains composed and focused on the task at hand in the presence of obvious stressors.
- Understands that rudeness or opposition is not typically personal attacks.
- Continues to make good decisions under urgent circumstances or when in danger.
- Soothes others who are more adversely affected by stress.

Performance Levels:

Satisfactory

Continues to perform effectively under stressful circumstances.

Superior

Acknowledges stress, but appears to be unaffected by it. Concentrates extra effort on accomplishing the task at hand. Assists others with effective coping

**20. JOB KNOWLEDGE** – Knows information required to perform a specific job. Includes both widely available courses of study (for example, chemistry, human resources management, graphic arts) and City-specific information (parking regulation and ticketing practices; purchasing procedures; provisions of the City Charter).

Level of Competency Required by Job:

Level 1: Knowledge is concrete, factual, and/or procedural and may be defined by the organization. Situations in which it is applied are quite consistent.

Level 2: Knowledge is substantive and may be defined by an external trade, field, or profession. Situations in which it is applied vary and, as such, require breadth and depth of understanding.

**Level 3: Knowledge is abstract, conceptual, and/or complex and may be supported by a well-defined academic discipline or authoritative sources (e.g., laws, ordinances, government guidelines/regulations/ codes). Situations in which it is applied may vary greatly or be novel.**

Examples of Behavioral Indicators:

- Performs work correctly/avoids technical (job content related) errors.
- Answers technical questions about work accurately.
- Asks few technical questions about the performance of routine work activities.
- Offers advice (“coaching”) to new employees regarding their work.
- Develops training programs for other employees.
- Sought out as a source of information by others.

Performance Levels:

Satisfactory

Sufficient job knowledge to perform work correctly independently. Answers technical questions about work correctly.

Superior

Expertise in technical job information sufficient to serve as a resource to others. May develop training manuals/ programs and/or give internal and/or external presentations related to work.

## **Job Knowledge Areas**

### **I. MAINTENANCE OF APPARATUS AND EQUIPMENT**

1. Knowledge of the readiness standards for the apparatus and the equipment carried on the apparatus, as contained in Volumes 1 and 3 of the LAFD Manual of Operations, the Truck Manual (Book 29), the Driver's Training Manual (Book 8), and other material in the Department Library, such as checking to be sure that all switches are in the proper position, and that fuel and oil reservoirs are full, sufficient to ensure that the apparatus and its equipment are ready to respond, without delay, to any emergency.
2. Knowledge of preventive maintenance procedures such as lubrication, operational tests, visual inspection, and scheduled replacement of various components, as contained in the Apparatus Preventive Maintenance Schedules (daily, weekly, monthly, bimonthly), Log Books, LAFD Driver's Training Manual, and Volume 5 of the Manual of Operations, as well as other Department Library sources, sufficient to perform these activities or direct other personnel who might assist the Apparatus Operator with these activities.
3. Knowledge of automotive theory as contained in the LAFD Driver's Training Manual, Logbooks, and the Apparatus Operator Training Manual (AOTM) sufficient to diagnose mechanical problems such as malfunctioning starter, brakes, or electrical system and to accurately report the needed repairs.

### **II. USE AND CARE OF TOOLS AND EQUIPMENT**

4. Knowledge of the use and care of all of the various types of tools and equipment carried on the apparatus, the purpose of each, and the location of each type on the truck, as contained in Volume 3 of the LAFD Manual of Operations and manuals provided by the tool/equipment manufacturers, so that the tools and equipment can be accessed quickly when needed and used properly during an emergency.

### **III. BUILDING CONSTRUCTION AND OPERATIONS**

5. Knowledge of building materials (e.g., masonry, wood, concrete) and construction types (e.g., modern, pre-1933, tilt-up, etc.), and various types of roof construction sufficient to determine from the exterior of a building the apparatus and ladder placement and what ventilation tools and techniques to use.
6. Knowledge of standpipe and sprinkler operations and connections sufficient to locate and shut down the systems in the proper sequence and at the proper time or to replace sprinkler heads, in order to minimize incidental dollar loss caused by water damage at a fire scene or to restore the systems to operation following sprinkler activation.



#### **IV. VENTILATION, SALVAGE, AND OVERHAUL**

7. Knowledge of ventilation techniques and practices such as center raftering, dicing, strip ventilation, and louvering sufficient to decide on and/or perform ventilation appropriate to the situation.
8. Knowledge of positive pressure ventilation practices such as determining the number and placement (series or parallel) of blowers sufficient to perform ventilation appropriate to the situation.
9. Knowledge of salvage techniques such as creating chutes, bagging floors and stairwells, and using salvage covers and plastic rolls as required to minimize the incidental dollar loss caused by smoke and/or water damage at an incident.
10. Knowledge of overhaul techniques such as de-watering and cleanup using squeegees, brooms, pike poles, sawdust, water vacuums, and scoop shovels as required to ensure complete extinguishment of the fire, eliminate hazardous conditions, protect the property from additional damage, determine the cause and location of ignition, separate salvageable material from debris, estimate dollar loss, leave the area clear for insurance adjustors, and secure the premises.

#### **V. OTHER FIREFIGHTING TECHNIQUES**

11. Knowledge of techniques used to develop water supplies at fire scenes, such as hydrant connections, ladder pipe supplies, and the operation of large stream appliances sufficient to function as an effective part of a fire fighting team.
12. Knowledge of proper ventilation techniques, proper use of safety equipment, and cutting of power lines to enhance the safety of members and the public from various hazards encountered in firefighting and rescue such as collapse of roofs or walls, smoke inhalation, and electrical shock.

#### **VI. PROCEDURES FOR HANDLING SPECIALIZED TYPES OF EMERGENCIES**

13. Knowledge of the responsibilities of the Apparatus Operator during high rise fires, such as the following lobby control operations: shutting off heating/ventilating/air conditioning systems, recalling elevators, monitoring alarm panels, relaying information on fire locations to other personnel, and consulting with the building operating engineer, as contained in the LAFD High Rise Incident Command System Manual (Book 100) sufficient to effectively function as part of the firefighting team.

Knowledge of the LAFD Hazardous Materials Program to properly mitigate hazardous materials incidents for the safety of the crew, public, and immediate property, as contained in:

14. Knowledge of LAFD Book 37 (Haz Mat) as it relates to: rapid extraction, decontamination, Personal Protective Equipment (PPE), monitoring equipment, apparatus placement.
15. Knowledge of the Department of Transportation Hazardous Materials Emergency Response Guide (ERG) as it pertains to the activities of a fire company in an incident where hazardous materials may be present.
16. Knowledge of Departmental Bulletin 14-04 NFPA with regards to the 704 placarding system; as necessary to enhance the safety of LAFD members, the community, and the environment at the scene of a fire or other incident at a location where hazardous materials may be present.
17. Knowledge of the City of Los Angeles Earthquake Prediction Response Plan (Book 98) as it pertains to the activities of a fire company in the event of a major earthquake.
18. Knowledge of the Apparatus Packets as they pertain to high-rise, earthquake, brush fire, and multi-casualty disaster operations, etc.

## **VII. LAFD MANUAL OF OPERATIONS**

19. Knowledge of the LAFD Manual of Operations sufficient to comply with applicable provisions while performing the routine and/or emergency duties of an Apparatus Operator.

## **VIII. LAFD PUBLICATIONS – TECHNICAL CONTENT**

20. Knowledge of LAFD Training Bulletins as they pertain to such topics as aerial operations, building materials and construction, physical rescue techniques, maintenance and use of tools, and emergency incidents.
21. Knowledge of the LAFD Driver's Training Manual (Book 8) as it pertains to such topics as apparatus maintenance, automotive theory, accidents and accident prevention, and the safe and efficient driving, spotting, and placement of heavy fire apparatus.
22. Knowledge of the LAFD Apparatus Operator's Training Manual as it relates to such topics as spotting and positioning the apparatus, automotive theory, and tillering techniques.

23. Knowledge of the LAFD Accident Prevention and Safety Program (Book 75) sufficient to safely perform both the emergency and routine activities of an Apparatus Operator.
24. Knowledge of the LAFD Rules and Regulations and General Orders as they pertain to the duties and obligations of LAFD members.
25. Knowledge of the LAFD Discrimination Prevention Policy Handbook (Book 90) sufficient to comply with its provisions in the course of all activities.
26. Knowledge of LAFD Weekly, Administrative, Safety, Supplemental Reference Materials, and Departmental Bulletins (Book 24) as they pertain to the daily activities of an Apparatus Operator and the daily operations of a fire station.
27. Knowledge of LAFD Book 29 (Truck Manual) as it relates to such topics as: building construction, elevator rescues, use of the air rescue cushion, ventilation techniques, smoke removal, water utilities, gas utilities, and two-line rope systems.
28. Knowledge of LAFD Book 30 (Command Procedures) sufficient to adequately and effectively oversee and manage the operations of Fire Department staff during routine and emergency situations.
29. Knowledge of LAFD Book 99 (Brush) as it relates to: topography, wind, and weather conditions as they relate to brush fire behavior and firefighting strategy.
30. Knowledge of LAFD Book 101 (Rapid Intervention) as it relates to: search techniques, radio communication, tools and equipment (e.g., RIC kit, one-inch hoseline),

## **IX. FIRE SCIENCE**

31. Knowledge of fire spread (direction and rate) in structures sufficient to select appropriate locations for raising ladders and performing ventilation.
32. Knowledge of fire behavior such as backdraft and flashover as it relates to firefighter safety and determining firefighting strategy.

## **VIII. MISCELLANEOUS**

33. Knowledge of the various types of equipment carried on an apparatus, specifics unique to each model of apparatus, and the station's first-in and greater alarm districts in order to be able to immediately recall the necessary information when needed to respond to an emergency.

34. Knowledge of the geography and topography of the first-in district to which assigned, as well as the company's first alarm and greater alarm districts, sufficient to respond safely, predictably, and quickly.
35. Knowledge of the use of hand signals, flare patterns, and traffic cones as required to safely direct traffic away from or around the scene of an emergency.
36. Knowledge of LAFD radio operation and communication procedures such as proper radio language, uses of different channels, and radio maintenance and care. (Note: Formerly Comp #63. Moved to this Section.)
37. Knowledge of the LAFD Informational Portal sufficient to determine scheduled apparatus repair.

**23. EQUIPMENT OPERATION** – Operates specialized equipment in performance of job duties.

Level of Competency Required by Job:

Level 1: Operate equipment based on on-the-job training.

Level 2: Operate equipment based on attendance at a training program and practice.

**Level 3: Operate equipment for which in-depth, complex training was required and which may require certification.**

Examples of Behavioral Indicators:

- Operates equipment proficiently.
- Operates equipment with strict adherence to safety procedures.
- Understands the operation of equipment used on the job and correctly answers questions about it.
- Willingly participates in any training necessary to maintain up-to-date knowledge of equipment operation.

Performance Levels:

Satisfactory

Operates equipment safely and with a high degree of proficiency.

Superior

Operates equipment with extreme proficiency and correctly answers questions about its operation. Trains and/or coaches others in the operation of equipment.

## Equipment Operation Areas

1. Operation of aerial hydraulic systems and schematics sufficient to safely operate aerial ladders, identify malfunctions, and make small repairs.
2. Operation of aerial ladder trucks under various weather conditions, traffic conditions, road surfaces, and grades sufficient to travel safely and quickly, using defensive driving techniques, to the scene of an emergency.
3. Knowledge of tillering techniques used to drive the rear portion of the Aerial Ladder Truck as contained in the AOTM and Driver's Training Manual, sufficient to coordinate driving with the tillerperson.
4. Ability to simultaneously consider numerous factors in positioning the apparatus, selecting spots, and raising and lowering aerial ladders, in order to avoid hazards, avoid blocking access of other firefighting vehicles at the scene of an incident, enable correct placement of ladders, and/or provide a barricade to protect members from vehicle traffic at the scene of an incident.
5. Operate ground and roof ladders including safely position, raise, and climb the ladders, determination of the proper length ladder, ladder loading, placement angles, desirable and undesirable locations on the side of the building (spotting), and avoidance of overhead obstructions, in order to provide access for firefighting personnel.
6. Operate hand tools such as screwdrivers and wrenches in order to make minor or temporary repairs to apparatus or equipment by tightening loosened bolts and screws, reattaching loose wires, and replacing blown fuses and light bulbs, while in the fire station, or enroute to an emergency.
7. Operate elevators (e.g. mechanical and hydraulic) sufficient to locate and operate the controls and reposition and open the elevator in order to free trapped victims.

**35. TEAMWORK** – Interacts effectively with others to achieve mutual objectives; readily offers assistance to others to facilitate their goal accomplishment.

Level of Competency Required by Job:

Level 1: Work effectively as a member of a work unit or project team. Readily offer assistance to others when they have too much work or have too little.

**Level 2: Work effectively as a team member in which different people have different roles/responsibilities and perspectives. Identify points for collaboration with co-workers; readily offer and request assistance.**

Level 3: Work effectively as a part of an interdependent team (your work gets done only if the work of the whole team is done; evaluation of team performance is more relevant than individual performance).

Examples of Behavioral Indicators:

- Discusses work-related matters with co-workers.
- Offers and requests assistance readily.
- Offers and is receptive to suggestions.
- Identifies problems with workflow that will prevent team from accomplishing its goals.
- Provides constructive criticism and feedback to team members to improve overall functioning of team.
- Assigns credit to team for accomplishments.

Performance Levels:

Satisfactory

Cooperates with co-workers and fulfills responsibilities as a member of a project team. Maintains a focus on common objectives and offers and requests assistance readily.

Superior

Sees the team as a whole; acknowledges that performance of the team is what in reality is evaluated by others. If anyone fails, everyone on the team fails.

**45. ORAL COMMUNICATION** – Communicates orally in a clear, concise, and effective manner.

Level of Competency Required by Job:

Level 1: Exchange specific, job-related information orally with others in the immediate work environment or via telephone and/or radio.

**Level 2: Obtain/provide/present general and/or job-specific information orally to a variety of others in various situations.**

Level 3: Obtain/provide/present a diverse array of information orally at varying levels of complexity to a wide range of others across many different situations and circumstances.

Examples of Behavioral Indicators:

- Audience clearly understands the intended message.
- Rarely must repeat information in response to questions.
- Refrains from use of unnecessary words, phrases, or jargon.
- Provides a level of detail appropriate to the situation (avoids too much or too little detail).
- Speaks at a level appropriate to the audience in terms of terminology, sentence structure, and simplicity/complexity of ideas expressed.
- Uses words with precision (vocabulary) to convey exact information.

Performance Levels:

Satisfactory

Speaks clearly and audibly, providing the appropriate information and level of detail. Typically conveys the message on the first attempt. Answers questions accurately and directly.

Superior

Speech is direct and to the point. Speaks convincingly and with authority when appropriate. Maintains sensitivity to the audience while providing thorough information with the appropriate level of detail through the use of precise language.



### 53. LEADERSHIP – Influences others toward goal accomplishment.

#### Level of Competency Required by Job:

Level 1: Assume responsibility for operations or a situation when necessary. Direct the actions of others or otherwise ensure required actions are taken. Remain responsible until relieved or situation is resolved.

**Level 2: Motivate others to continual activity focused on goal accomplishment. Provide clear objectives and articulate individual activities necessary to achieve them; ensure resources necessary to do so are available. Monitor work progress and provide feedback; assess results.**

Level 3: Articulate a vision, convey it to others, and assign responsibilities (or assure they are assigned) for achieving it. Monitor progress, make adjustments as necessary, and evaluate results.

#### Examples of Behavioral Indicators:

- Evaluates circumstances, determining what needs to be done, and ensuring individual responsibility for performing specific actions is assigned.
- Follows-up to ensure that specific actions have been taken and overall objective has been accomplished.
- Clearly communicates objectives and responsibility/individual actions necessary to achieve them.
- Monitors work in progress, provides feedback to those involved, and makes adjustments to work plans/processes to ensure goal attainment.
- Evaluates completed work for quality, thoroughness, and effectiveness to determine whether re-work or additional work is required to meet intended objectives and to provide learning for future assignments

#### Performance Levels:

##### Satisfactory

Assumes responsibility for work of others when required or necessary. Ensures actions taken to achieve objectives, and evaluates results to determine any follow-up needed.

##### Superior

Articulates vision/states clear objectives and assigns responsibility/motivates others toward achievement. Monitors progress; gives feedback; evaluates results; ensures follow-up.

