

Suggested Reference Material:

The Career Equipment Fleet Manager, Association of Equipment Management Professionals. Reference that you are taking an EVT exam to be eligible for member price of \$225.00 from 970-384-0510 www.AEMP.org

NFPA reference listed below - National Fire Protection Association (800) 344-3555 or www.nfpa.org

NFPA 1900: Standard for Aircraft Rescue and Firefighting Vehicles, Automotive Fire Apparatus, Wildland Fire Apparatus, and Automotive Ambulances (**NFPA 1901 and 1917 CHAPTERS**) 2024 edition

NFPA 1910: Standard for the Inspection, Maintenance, Refurbishment, Testing and Retirement of In-Service Emergency Vehicles and Marine Firefighting Vessels (**NFPA 1911 and 1071 CHAPTERS**) 2024 edition

LEARNING OBJECTIVES

Section A - The Supervisor shall understand the principles stated in **The Career Equipment Fleet Manager**

1. Information
 - a. Benchmarking
 - (1) Definition
 - (2) Business Practice
 - (3) Implementation
 - b. Specifications/Life Cycle Cost
 - (1) Specification Writing
 - (a) performance & functional
 - (2) Tires/Fuel
 - (3) Automatic Transmissions
 - (4) Diesel Engine/Gasoline Engines
 - (5) Road calls
 - c. Technology
 - (6) Air brake dryers
 - (7) Considerations for specifications
 - (8) Fundamental requirement
 - (9) Technical specifications
 - (10) Functional specifications
 - (11) Sole source
2. Policies
 - a. Environmental
 - (1) Hazardous Materials
 - (2) Hazardous Waste
 - (3) EPA
 - (4) Fuel Storage Tank Regulations
 - (5) Containers
 - (6) Toxic Wastes
 - (7) Reactive Waste
 - (8) Employee Environmental Training
 - (9) Hazardous Communication Program
 - (10) Shop Ventilation
 - (11) Material Safety Data Sheets
 - (12) Used Oil
 - (13) Diesel Emission Fluid (DEF)
 - (a) NOx (nitrogen oxide) reduction
 - (b) NOx formation
 - (c) EGR (exhaust gas recirculation)
 - (d) SCR (selective catalyst reduction)
 - b. Human Resource Chapter
 - (1) ADA
 - (a) Pre-employment Testing & Inquiries
 - (2) Discipline
 - (3) Sexual Harassment
 - (4) EEOC
 - (5) Employment Law
 - (6) Motivation
 - (7) Performance Evaluation
 - (8) Personnel Management
 - (9) Fair Labor Standards Act (FLSA)
 - (10) Discrimination
 - (11) Quid Pro Quo
 - (12) Training
 - c. Safety
 - (1) Emergency Evacuation Plan
 - (2) Personnel Protective Equipment
 - (3) Fire Extinguishers
 - (4) Lock out/Tag out
 - (5) Forklift Operator Training
 - (6) Safety awareness
3. Controls
 - a. Outsourcing
 - (1) Reasons outsourcing fails
 - (2) Feasibility/Effectiveness
 - (3) Outsourcing and increased control
 - (4) Definition of control
 - b. Parts Management
 - (1) Vendor managed inventory (VMI)
 - (2) Inventory volume/costs
 - (3) Purpose of inventory
 - (4) Just-in-Time
 - (5) Order quantity cost
 - c. Preventive Maintenance
 - (1) Preventative/Scheduled Maintenance
 - (2) Unscheduled Maintenance
 - (3) Failure Analysis
 - (4) Oil Filters
 - (5) Labor Productivity
 - (6) Oil Analysis
 - d. Shop/Facilities Management
 - (1) Diagnosing Problems
 - (2) Empowering
 - (3) Ethics
 - (4) Failure & Breakdown Analysis

Section B

The Supervisor shall understand the requirements for Fire Apparatus and Automotive Ambulances as stated by **NFPA**.

1. NFPA 1901

a. Definitions

- (1) Authority Having Jurisdiction (AHJ)
- (2) Load Management System
- (3) In-Service Weight

b. Requirements

- (1) Acceptance tests
- (2) Acceleration test
- (3) Certification test

(4) Braking System GVWR

- (5) Reflective stripping
- (6) DPF regeneration
- (7) Stability tests

c. Safety Components

- (1) Vehicle data recorder
- (2) Stability Control
- (3) DPF Regeneration

2. NFPA 1911

a. Pump Test requirements

b. Service/Performance test

- (1) Pressure measuring equipment

c. Gauges

- (1) Calibration

d. Flow equipment

e. Pump Vacuum Test

f. Preventive Maintenance

g. Documentation

h. Operational Tests

i. Intake Reliefs

j. Test Results

k. Tire requirements

l. Out of Service Criteria

- (1) Definition
- (2) Engine systems
- (3) Engine cooling system
- (4) Stop engine light
- (5) Transmission temperature
- (6) Wheels/Axle
- (7) Welding
- (8) Warning lights
- (9) Cab area
- (10) Aerial device

m. Qualification of Personnel

n. Safety

o. Vehicle Stability/Instability

- (1) Weight

p. Braking System

q. Aerial Instability

r. Types of leaks/leakage

3. NFPA 1071

a. Definitions

- (1) JPR
- (2) Technician Levels
- (3) Emergency Response Vehicle
- (4) Aerial Device Safety
- (5) Deficiency
- (6) Defect
- (7) Test
- (8) Structural Integrity

b. Duties & Responsibilities

- (1) EVT I, II, III Responsibilities
- (2) Level II Body & Cab Repairs
- (3) Water tank repair Level II Technician

c. Chassis Testing

- (1) Parking Brake
- (2) Cab Tilt
- (3) Pump & Tank Systems

d. Requisite Knowledge

- (1) Level III
 - (a) Repair Times
 - (b) Failure Analysis

e. Training

- (1) Continuing Education
- (2) Technician Education

f. Requisite Skills

4. NFPA 1917.

a. Payload

b. FDA & ambulance components

c. Legal requirements

d. Administration

e. Statement of exemptions

f. Low idle alternator output

- (1) Accessory electrical loads

g. High idle alternator output

h. Patient compartment sound level test

i. Multiplex circuit protection

j. Ambulance Performance

- (1) Altitude requirement
- (2) Refueling distance
- (3) temperature requirements

k. Water leak test

l. Oxygen system

- (1) Leak test
- (2) Storage

m. Personal protection

n. Road Performance

- (1) Speed requirement

o. Wiring

- (1) Wiring protection
- (2) Wire harness construction

p. Scene lighting

q. Patient compartments and level testing

r. Patient compartment interior noise

s. Longitudinal weight distribution

t. Ambulance components

- (1) Reliability
- (2) Serviceability

u. Line Voltage Receptacles