Lesson 4-1: Apparatus Inspection and Maintenance
Student Performance Objective

• After completing this lesson, the student shall be able to explain actions taken to appropriately conduct apparatus inspection and maintenance. In addition, students will be able to perform basic apparatus inspection and maintenance skills.
Overview

• Systematic Maintenance Program
• Documentation, Reporting, and Follow-Up
• Vehicle Cleanliness
Systematic Maintenance Program

• Every department should develop SOPs for systematic apparatus maintenance.

Compliance with NFPA® standards

Who? What? When?

Method for reporting, correcting, and documenting activities
Systematic Maintenance Program

- Apparatus maintenance responsibilities will vary by jurisdiction.

Driver/operators often fix minor deficiencies

Certified mechanics fix more complex problems
Systematic Maintenance Program

- Maintenance schedules vary by jurisdiction and differ based on staffing.

Weekly or monthly detailed inspection

Maintenance check at the beginning of each tour of duty
Documentation, Reporting, and Follow up

• Each jurisdiction should establish inspection and maintenance policies.

  Procedure for documentation and communication

  Standardized written forms or computer programs

  Filing system for storage, retrieval, and review of records

  Inspection checklist for specific apparatus
Driver/operators should follow established policy for documenting, reporting, and following up on repairs.

- Discover needed repair
- Notify supervisor
- Take immediate action for serious issues
- Document per policy
- Follow up in reasonable amount of time
Documentation, Reporting, and Follow up

- Apparatus maintenance and inspection records serve several different functions.
  
  - Documentation for warranty claims
  - Evidence for accident investigators
  - Support for decisions to purchase or repair apparatus
Vehicle Cleanliness

- Cleanliness of apparatus and onboard equipment is an important part of any inspection and maintenance program.

- Clean apparatus is easier to inspect.
- Promotes longer vehicle life.
Vehicle Cleanliness

- Apparatus and equipment are easier to inspect if they are free of dirt and grime.
  
  A clean engine permits proper inspection for leaks.

  Diesel fuel leaves a gummy residue.

  Linkages, fuel injectors, and other controls in the engine become inoperable due to the collection of dirt.

  Mechanical defects are more obvious if the undercarriage is clean.

  Components can be visualized more easily.
Vehicle Cleanliness

• NOTE:
  – While fuel injectors do not have external moving parts, they are still a source of collected dirt and oil. This area should be checked and cleaned.
Vehicle Cleanliness

- Over-cleaning the fire apparatus can have adverse effects.

**Steam cleaning or high pressure washing**

- Steam cleaning/high pressure washing may remove lubrication from chassis, engine, pump, and underbody

**Wiring and connections**

- Use caution when employing high pressure cleaning equipment near wiring and connections
- Perform routine lubrication on connections when necessary
Vehicle Cleanliness

- Driver/operators must ensure that the entire apparatus is clean and well maintained.

- Washing

- Interior cleaning

- Glass care

- Waxing
Student Performance Objective

• After completing this lesson, the student shall be able to explain actions taken to appropriately conduct apparatus inspection and maintenance. In addition, students will be able to perform basic apparatus inspection and maintenance skills.
Review

- Systematic Maintenance Program
- Documentation, Reporting, and Follow-Up
- Vehicle Cleanliness