



**BUSINESS OF THE CITY COUNCIL  
CITY OF MERCER ISLAND**

**AB 5587  
October 7, 2019  
Consent Calendar**

**AGENDA BILL INFORMATION**

<b>TITLE:</b>	AB 5587: Fire Apparatus and Equipment Service Interlocal Agreement with Eastside Fire & Rescue	<input type="checkbox"/> Discussion Only
<b>RECOMMENDED ACTION:</b>	Authorize City Manager to sign Interlocal Agreement.	<input checked="" type="checkbox"/> Action Needed:
		<input checked="" type="checkbox"/> Motion
		<input type="checkbox"/> Ordinance
		<input type="checkbox"/> Resolution

<b>DEPARTMENT OF</b>	Fire	Steve Heitman, Fire Chief
<b>COUNCIL LIAISON</b>	n/a	
<b>EXHIBITS</b>	Interlocal Agreement	
<b>CITY COUNCIL PRIORITY</b>	n/a	

<b>AMOUNT OF EXPENDITURE</b>	\$ \$106,400
<b>AMOUNT BUDGETED</b>	\$ \$106,400
<b>APPROPRIATION REQUIRED</b>	\$ n/a

**SUMMARY**

In an effort to contain costs without sacrificing a high level of service, the Mercer Island Fire Department recommends that the City enter into an Interlocal Agreement (“ILA”) for the its apparatus servicing and maintenance with Eastside Fire & Rescue (“Eastside Fire”).

**BACKGROUND**

The City of Mercer Island has had an ILA for the maintenance of the City’s fire apparatus with the City of Redmond Fire Department (“Redmond Fire”) for over 25 years. This arrangement is due to the limited number of agencies that employ mechanics with the certification level required to perform maintenance on these highly technical pieces of equipment.

Redmond Fire was the provider of choice for years due to its professional service, similar agency equipment, and its low cost when compared to other providers. In 2015, Redmond Fire completed a rate analysis and has since steadily increased its rates to achieve cost recovery for the services they provide. In 2018, during budget development for the 2019-2020 biennium, Redmond Fire quoted \$106/hour. In 2019, when the Mercer Island and Redmond Fire Departments sat down to discuss the updated ILA, Redmond announced that the actual hourly rate for full cost recovery would be \$146/hour plus an additional \$17,000 for a staff person to help track work performed and maintenance records. Because the City budgeted for \$106/hour, it was agreed that Redmond Fire would honor its original quote for 2019 and postpone hiring additional administrative staff.

At this point, Mercer Island Fire researched other agencies that provide fire apparatus maintenance, which included the Bellevue Fire Department (“Bellevue Fire”) and Eastside Fire & Rescue (“Eastside Fire”). After meeting with both departments, it was concluded that Bellevue Fire would cost more than staying with the Redmond Fire. Eastside Fire quoted the City of Redmond’s 2019 rate (\$106/hour) and agreed to keep its future rates in line with cost of living increases. In addition, Eastside Fire utilizes light duty personnel to shuttle apparatus back and forth for servicing whenever possible, whereas the City currently pays the City of Redmond’s mechanics or off-duty firefighters to shuttle apparatus. Eastside Fire is also expanding their number of maintenance personnel and should have shorter turn-around times for apparatus service. The service levels received from Eastside Fire will be the same or higher than those provided by Redmond Fire.

Signing a new ILA for the maintenance of the City’s fire apparatus with Eastside Fire & Rescue will result in long-term savings for the City of Mercer Island without decreasing the current level of service.

## **RECOMMENDATION**

Authorize the City Manager to sign an Interlocal Agreement with Eastside Fire & Rescue for Fire Apparatus and Equipment Service.

INTERLOCAL AGREEMENT  
BETWEEN  
THE CITY OF MERCER ISLAND  
AND  
EASTSIDE FIRE & RESCUE  
FOR FIRE APPARATUS AND EQUIPMENT SERVICE

THIS AGREEMENT is entered between the City of Mercer Island (“the City”) and Eastside Fire & Rescue (“EF&R”) and is dated January 1, 2020 for reference purposes.

RECITALS

- A. The City is a municipal corporation of the State of Washington and operates a municipal fire department.
- B. EF&R is a fire and emergency medical services joint operation of King County Fire Protection District No. 10, King County Fire District No. 38, King County, Washington, the City of North Bend, Washington, City of Issaquah, Washington, and the City of Sammamish, Washington.
- C. The City desires to contract with EF&R to provide maintenance, inspection, testing and repair services for City-owned fire and EMS apparatus and equipment. EF&R has the facilities and personnel to provide such services on the terms and conditions set forth herein.
- D. This Agreement is entered under the authority of the Interlocal Cooperation Act, Chapter 39.34 RCW. No separate legal entity will be formed, and no property will be jointly acquired.

AGREEMENT

The City and EF&R agree as follows:

- 1. For the purposes of this Agreement, the following words shall have the meanings set forth:
  - 1.1. “Apparatus” means City-owned vehicles used to provide firefighting, rescue, hazardous materials and emergency medical services (“EMS”). EF&R shall perform maintenance, inspection and testing for the apparatus identified in Appendix A, attached hereto and incorporated herein. Apparatus include, but are not limited to, fire engines, ladder trucks, brush vehicles, aid units, command vehicles, staff vehicles and marine or water based motorized vehicles.

- 1.2. "Annual preventative maintenance" means inspection, maintenance and testing of Apparatus and pumps for the Apparatus once a calendar year. This annual preventative maintenance for Apparatus shall include all the inspections, maintenance and testing of the "Quarterly/Annual Mobile Fire Emergency Vehicle Inspection Report" published by the National Fire Protection Association ("NFPA"), attached as Appendix B and incorporated herein, or of an amended version of such Report. This annual preventative maintenance for pumps shall include all the testing protocols and requirements of the "Pump Performance Test" published by the NFPA, attached as Appendix C and incorporated herein, or of an amended version of such report.
  - 1.3. "Emergency repairs" means immediate repairs of Apparatus or equipment done on the road or pursuant to emergency call out.
  - 1.4. "Equipment" means an item that is used to support firefighting, rescue, hazardous materials or EMS activities, including but not limited to smoke ejectors, generators, ladders, hoses and ambulance stretchers.
  - 1.5. "Non-scheduled service and repairs" mean service and repairs not included in Appendix B, or an amended version of Appendix B, for Apparatus, or included in Appendix C, or an amended version of Appendix C, for pumps. Examples of non-scheduled service and repairs are valve repair, pump rebuild, body damage repair, engine repair or replacement, and equipment modification.
  - 1.6. "Periodic Preventative maintenance" means inspection, maintenance and testing for less than all the inspection, maintenance and testing items included in Appendix B. EF&R shall perform periodic preventative maintenance outside of the annual preventative maintenance and no more than twice a calendar year.
2. EF&R shall perform the following services under the following terms and conditions:
    - 2.1. EF&R shall perform annual preventative maintenance on a schedule and at times agreed to by the parties. EF&R shall perform periodic preventative maintenance for items of inspection, maintenance and testing agreed to by the parties once or twice a calendar year during other than annual preventative maintenance. EF&R shall provide fluids that are necessary for annual preventative maintenance and periodic preventative maintenance, including but not limited to motor oils, brake fluids, transmission fluids, antifreeze, gear oils, hydraulic oils, grease and windshield fluids.

- 2.2. EF&R shall perform non-scheduled repairs and emergency repairs at times agreed to by the parties, but only if EF&R personnel and equipment are available to perform such repairs.
- 2.3. Unless agreed otherwise by the parties, EF&R shall perform annual preventative maintenance, periodic preventative maintenance, non-scheduled repairs and emergency repairs during EF&R's regular business hours of 8:00 a.m. to 5 p.m. Monday through Thursday and 8:00 a.m. to 12:00 p.m. Friday, except holidays observed by EF&R ("EF&R Regular Hours"). Unless agreed otherwise by the parties, EF&R shall perform the maintenance and repairs at the EF&R shop at 175 Newport Way NW, Issaquah, Washington.
- 2.4. The City may add apparatus to Appendix A or delete apparatus from Appendix A by submitting written notice of the change with EF&R. EF&R shall acknowledge the change by preparing a revised Appendix A, which shall contain the date of the change. The revised Appendix A shall be considered an amendment of this Agreement without physical attachment to this Agreement. The charges for added apparatus shall be the same as the charges for other Apparatus, unless agreed otherwise by the parties.
3. EF&R shall perform all service, inspection maintenance, testing and repairs in a competent and workmanlike manner, in compliance with applicable laws and regulations.
4. The City shall pay EF&R for maintenance, service and repairs as follows:
  - 4.1. The City shall pay for annual preventative maintenance and periodic preventative maintenance: at \$115 per hour in 2020 and \$125 per hour in 2021.
  - 4.2. The City shall pay for non-scheduled service and repairs at \$115 per hour in 2020 and \$125 per hour in 2021. This rate shall include maintenance of gas-powered equipment.
  - 4.3. The City shall pay for emergency repairs at one hundred and fifty percent (150%) of the non-scheduled service and repairs rate, with a minimum charge for two (2) hours.
  - 4.4. The City shall pay the rates in sections 4.1 and 4.2 above where the maintenance, service or repairs are performed during EF&R Regular Hours. If the City requests EF&R to perform maintenance, service or repair outside of EF&R Regular Hours, or EF&R must perform maintenance, service or repair outside of EF&R Regular Hours to meet a deadline or schedule of the City, the City shall pay one hundred

and fifty percent (150%) of the rates in sections 4.1 and 4.2 above, with a minimum charge for two (2) hours.

- 4.5. The parties, by their administrators identified in Section 8 of this Agreement, may agree in writing on or before July 1 of any year to adjust the rates of Section 4 to be effective on the subsequent January 1.
- 4.6. The City shall pay a \$25 shop fee per Apparatus for annual preventative maintenance, periodic preventative maintenance and non-scheduled service and repair. The shop fee shall cover consumable goods used at the EF&R Shop (e.g. rags, brake cleaner, spray-lubricant, etc.).
- 4.7. The City shall pay for all fluids associated with inspection, maintenance, testing, service and repair. This charge for the fluids shall be EF&R's direct costs for fluids, plus fifteen percent (15%) administration fee.
- 4.8. The City may elect to have an EF&R contractor perform ladder and hose testing and stretcher maintenance for City Apparatus. EF&R's charge for this service shall be the actual cost to EF&R for the service (e.g. the contractor's charges to EF&R in 2017 was \$0.23/ft. for fire hose and \$2.50/ft for ladders). The City must elect to have EF&R's contractor perform this service no later than October of the year preceding the year in which the service will be performed.
- 4.9. EF&R shall apply Washington State Sales Tax to all of the City charges under this Agreement.
5. EF&R shall bill the City for charges for routine schedule testing, maintenance and repair, together with all hourly labor charges and costs for any parts purchased or supplied by EF&R and incurred during the preceding quarter. The City shall pay the bill within thirty (30) days of receipt.
6. This Agreement is effective January 1, 2020, notwithstanding its later execution, and shall remain in effect until December 31, 2021. The City may renew this Agreement for additional one-year terms by written notice given to EF&R no later than November 1, 2020 for the initial term and November 1 annually thereafter for any renewal term. EF&R may terminate this Agreement by written notice given to the City no later than November 1 of the year before the commencement of any one-year renewal term.
7. This Agreement expresses the entire understanding between the parties and may be amended only in writing, except as provided otherwise in Section 2.4 and Section 4.5 of this Agreement.

8. The following persons shall administer this Agreement for each party, until such a time as either party gives written notice to the other of a change:

FOR EF&R:  
Jeff Clark  
Fire Chief  
Eastside Fire & Rescue

FOR THE CITY:  
Steve Heitman  
Fire Chief  
City of Mercer Island, WA

BY THEIR SIGNATURES BELOW, the signors certify that they have the authority to sign this Agreement on behalf of their respective agency and agree to the terms of this Agreement.

\_\_\_\_\_  
Jeff Clark, Fire Chief                      Date  
Eastside Fire & Rescue

\_\_\_\_\_  
Steve Heitman, Fire Chief              Date  
City of Mercer Island

APPENDIX A  
Fire Apparatus and Equipment List

Type	Designator	Manufacturer	Year	Miles	Pump hours
Engine	E91	Pierce	2013	21511	173.3
	E92	Pierce	2008	40610	3482
	E93	Pierce	2008	48439	2845.4
	E94*	Seagraves	1993	94554	432.2
Midi pumper	M91	Pierce / GMC	2008	6417	108.4
	M92	Pierce / International	2016	3456	148
Rescue	R91	Braun / Ford	2014	3167	
Aid car	A91	Braun / Ford	2017	4810	
	A92	Braun / GMC	2011	52513	
	A93	Braun / Ford	2007	45534	

\* E194 will be surplussed in July or so once the new Pierce Pumper is I/S



APPENDIX B  
QUARTERLY/ANNUAL INSPECTION REPORT

1911-83

**QUARTERLY/ANNUAL  
MOBILE FIRE EMERGENCY VEHICLE INSPECTION REPORT**

Inspection date \_\_\_\_\_

Fire department \_\_\_\_\_ Emergency vehicle no. \_\_\_\_\_

**Emergency Vehicle**

**Chassis**

Manufacturer \_\_\_\_\_

Make \_\_\_\_\_

Model \_\_\_\_\_

Model \_\_\_\_\_

Serial no. \_\_\_\_\_

VIN \_\_\_\_\_

Hourmeter \_\_\_\_\_

Odometer \_\_\_\_\_

**Legend:**

X = Acceptable visually, checked    R = Requires repair or adjustment  
U = Unsafe condition requires repair prior to use    C = Corrected    NA = Not applicable

**CHASSIS INSPECTION**

**Engine and Cooling Systems**

- |  |   |
|--|---|
| _____ Oil level and condition            | _____ Battery cables and clamps                   |
| _____ Oil leaks                          | _____ Battery fluid level                         |
| _____ Coolant level                      | _____ Battery terminal voltage _____ volts        |
| _____ Antifreeze protection              | _____ Chassis grounds and connections             |
| _____ Coolant additive level             | _____ Starter motor cable condition               |
| _____ Fuel system for leaks              | _____ Starter motor operation                     |
| _____ Fuel system plumbing condition     | _____ Fan mounting bolts and adjustment           |
| _____ Power steering fluid level         | _____ Fan shroud clearance and condition          |
| _____ Power steering pump and plumbing   | _____ Fan clutch or shutters operation            |
| _____ Coolant hose condition and leaks   | _____ Air filter element condition                |
| _____ Alternator mounting brackets       | _____ Air intake tubes and hoses                  |
| _____ Alternator connections             | _____ All belts condition and adjustment          |
| _____ Charging system output _____ volts | _____ After-cooler or intercooler tubes and hoses |
| _____ Auxiliary cooler connections       | _____ Motor mount condition                       |
| _____ Battery condition and hold downs   | _____ Radiator cap pressure                       |

Comments on engine and cooling systems inspection \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**FIGURE C.3(b) Quarterly/Annual Emergency Vehicle Inspection Report.**

**Chassis and Components**

*Fluid levels*

- \_\_\_\_\_ Lubricate chassis
- \_\_\_\_\_ All fluid levels

*Steering*

- \_\_\_\_\_ Steering linkage and tie rods
- \_\_\_\_\_ Steering box mounting
- \_\_\_\_\_ Steering system plumbing for leaks
- \_\_\_\_\_ Manual steering box fluid level

*Transmission*

- \_\_\_\_\_ Auto trans fluid level
- \_\_\_\_\_ Auto trans mounting and condition
- \_\_\_\_\_ Auto trans and plumbing for leaks
- \_\_\_\_\_ Auto trans lockup system
- \_\_\_\_\_ Manual trans oil level
- \_\_\_\_\_ Manual trans mounting
- \_\_\_\_\_ Manual trans for leaks

*Fuel*

- \_\_\_\_\_ Fuel tank and plumbing for leaks
- \_\_\_\_\_ Fuel tank mounting

*Tires / Wheels*

- \_\_\_\_\_ Tire and wheel conditions
- \_\_\_\_\_ Lug nuts for torque
- \_\_\_\_\_ Tire tread depth    Front \_\_\_\_\_ Rear \_\_\_\_\_
- \_\_\_\_\_ Tire air pressure    Front \_\_\_\_\_ Rear \_\_\_\_\_

*Driveline*

- \_\_\_\_\_ Driveline U-joints and yokes
- \_\_\_\_\_ Driveline carrier bearings
- \_\_\_\_\_ Differential oil level and leaks

Comments on chassis and components inspection \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

*Front axle*

- \_\_\_\_\_ Front spring and shock condition
- \_\_\_\_\_ Front wheel bearings and king pins

*Rear axle*

- \_\_\_\_\_ Rear spring condition
- \_\_\_\_\_ Rear spring torque tubes and shocks
- \_\_\_\_\_ Axle flanges for leaks and tightness
- \_\_\_\_\_ Frame rails and cross members

*Brakes*

- \_\_\_\_\_ Brake condition (amount of material)
- \_\_\_\_\_ Brake adjustment and operation
- \_\_\_\_\_ Air brake valves and tanks
- \_\_\_\_\_ Lubricate brake pedal pivot pin
- \_\_\_\_\_ Drain air tanks and check air dryer
- \_\_\_\_\_ Air brake lines and chambers
- \_\_\_\_\_ Air brake leaks and buildup
- \_\_\_\_\_ Hydraulic brakes for leaks
- \_\_\_\_\_ Hydraulic brake components
- \_\_\_\_\_ Hydro-vac operation and mounting
- \_\_\_\_\_ Parking brake operation

*Exhaust system*

- \_\_\_\_\_ Exhaust system and muffler

FIGURE C.3(b) *Continued*

**Cab and Body**

*Cab*

- \_\_\_ Cab mounting and tilt mechanism
- \_\_\_ Cab frame and sheet metal
- \_\_\_ Cab hoist motor solenoid volt drop \_\_\_ volts
- \_\_\_ Door mounting and latches
- \_\_\_ Cab glass condition
- \_\_\_ Cab seat condition and mounting
- \_\_\_ Seat belt condition and mounting
- \_\_\_ Steering wheel mounting and alignment
- \_\_\_ Horn operation
- \_\_\_ Heater and defroster operation
- \_\_\_ Throttle controls and linkage
- \_\_\_ Window operation

- \_\_\_ Auto transmission shift controls
- \_\_\_ Manual transmission shift controls
- \_\_\_ Clutch pedal linkage
- \_\_\_ Clutch pedal free play
- \_\_\_ Windshield wipers and washers
- \_\_\_ Mirror condition and mounting

*Body*

- \_\_\_ Compartment door latches
- \_\_\_ Compartment door and hinge condition
- \_\_\_ Body compartment condition
- \_\_\_ Step and auxiliary equipment condition

Comments on cab and body inspection \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Cab and Body Electrical**

- \_\_\_ Headlights and high beams
- \_\_\_ Parking and clearance lights
- \_\_\_ Tail and stop lights
- \_\_\_ Backup lights and alarm
- \_\_\_ Turn signal and hazard operation
- \_\_\_ Cab spot lights operation
- \_\_\_ Auxiliary light operation
- \_\_\_ Front warning lights
- \_\_\_ Rear warning lights
- \_\_\_ Front beacon lights
- \_\_\_ Intersection warning lights
- \_\_\_ Body deck lights

- \_\_\_ Compartment lights
- \_\_\_ Siren operation and mounting
- \_\_\_ Siren solenoid voltage drop \_\_\_ volts
- \_\_\_ Voltage drops of all solenoids

List solenoids and voltage drop below

Solenoid	Voltage Drop

Comments on cab and body electrical inspection \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

FIGURE C.3(b) *Continued*

**Line Voltage Inspection**

- |   |   |
|---|---|
| <input type="checkbox"/> Power source                               | <input type="checkbox"/> Electrical controls        |
| <input type="checkbox"/> Generator drive engine or power drivetrain | <input type="checkbox"/> Output voltage _____ volts |
| <input type="checkbox"/> Cord reels and receptacles                 | <input type="checkbox"/> Output frequency _____ Hz  |
| <input type="checkbox"/> Electrically driven equipment              |   |

Comments on line voltage electrical inspection \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Road and Operational Test**

- |   |  |
|---|--|
| <input type="checkbox"/> Engine oil pressure          | <input type="checkbox"/> Drive line vibration            |
| <input type="checkbox"/> Engine coolant temperature   | <input type="checkbox"/> Air compressor operation        |
| <input type="checkbox"/> Tachometer operation         | <input type="checkbox"/> Air compressor governor setting |
| <input type="checkbox"/> Auto transmission shifting   | <input type="checkbox"/> Speedometer operation           |
| <input type="checkbox"/> Clutch release and operation | <input type="checkbox"/> Shimmy or front end noises      |
| <input type="checkbox"/> Manual transmission shifting | <input type="checkbox"/> Clutch fan or shutter operation |
| <input type="checkbox"/> Brake operation              |  |

Comments on road and operational test \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**PUMP AND WATER TANK INSPECTION**

Pump manufacturer \_\_\_\_\_ Model \_\_\_\_\_ S/N \_\_\_\_\_  
 Pump location \_\_\_\_\_ Pump hours \_\_\_\_\_ Capacity \_\_\_\_\_

- |   |   |
|---|---|
| <input type="checkbox"/> Pump shift and indicator lights              | <input type="checkbox"/> Engine speed counter                           |
| <input type="checkbox"/> Automatic transmission lockup system         | <input type="checkbox"/> Pump panel electrical switches and panel light |
| <input type="checkbox"/> Clutch disengagement and manual transmission | <input type="checkbox"/> Master gauges for accuracy and operation       |
| <input type="checkbox"/> Pump transmission shift cylinders or motor   | <input type="checkbox"/> Discharge gauges for accuracy and operation    |
| <input type="checkbox"/> Pump transmission oil level and condition    | <input type="checkbox"/> Water tank indicator system                    |
| <input type="checkbox"/> Pump panel tachometer and engine gauges      | <input type="checkbox"/> Pump   |

FIGURE C.3(b) *Continued*

APPENDIX B  
QUARTERLY/ANNUAL INSPECTION REPORT

1911-87

- |  |  |
|--|--|
| <input type="checkbox"/> Pump plumbing   | <input type="checkbox"/> Drain valves  |
| <input type="checkbox"/> High-pressure pump system   | <input type="checkbox"/> Tank-to-pump and tank fill valves                               |
| <input type="checkbox"/> Pressure control device operation and response time               | <input type="checkbox"/> Auxiliary cooler  |
| <input type="checkbox"/> Transfer valve operation  | <input type="checkbox"/> Suction strainer  |
| <input type="checkbox"/> Intake relief operation   | <input type="checkbox"/> Preconnect valves and plumbing                                  |
| <input type="checkbox"/> Primer operation  | <input type="checkbox"/> Deck gun valve and plumbing                                     |
| <input type="checkbox"/> Dry vacuum test   | <input type="checkbox"/> Front or rear suction valves and plumbing and valves            |
| Initial reading <input type="checkbox"/> in. vacuum  | <input type="checkbox"/> Auto-lube level and fluid condition                             |
| Leakage in 5 minutes <input type="checkbox"/> in. vacuum                                   | <input type="checkbox"/> Water tank mounting and integrity                               |
| <input type="checkbox"/> Primer motor solenoid voltage drop <input type="checkbox"/> volts | <input type="checkbox"/> Booster reel mounting and operation                             |
| <input type="checkbox"/> Pump packing—adjust if necessary                                  | <input type="checkbox"/> Anodes in tank and pump   |
| <input type="checkbox"/> Mechanical seals for leaks  | <input type="checkbox"/> Reel motor solenoid voltage drop <input type="checkbox"/> volts |
| <input type="checkbox"/> Discharge and intake valves                                       | <input type="checkbox"/> Pump mounting integrity   |
| <input type="checkbox"/> Valves, linkage, remote rods, and pivot points                    | <input type="checkbox"/> Pump driveline U-joints, yokes and flanges                      |

Comments on pump and tank inspection \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**FOAM PROPORTIONING SYSTEM INSPECTION**

Foam system manufacturer \_\_\_\_\_ Model \_\_\_\_\_ S/N \_\_\_\_\_

- |  |   |
|--|---|
| <input type="checkbox"/> Instrumentation, gauges, and controls | <input type="checkbox"/> Hydraulic system                               |
| <input type="checkbox"/> Strainer or filter                    | <input type="checkbox"/> Hydraulic fluid tank mounting and integrity    |
| <input type="checkbox"/> Foam concentrate pump                 | <input type="checkbox"/> Foam concentrate tank mounting and integrity   |
| <input type="checkbox"/> Lubricant level and condition         | <input type="checkbox"/> Foam eductor system, metering, and check valve |
| <input type="checkbox"/> Hydraulic pump                        |   |

Comments on foam proportioning system inspection \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

FIGURE C.3(b) *Continued*

**PUMP PERFORMANCE TEST**

Emergency vehicle number or designation \_\_\_\_\_ Year manufactured \_\_\_\_\_  
 Manufacturer \_\_\_\_\_ Model \_\_\_\_\_  
 Serial no. \_\_\_\_\_ Vehicle identification no. \_\_\_\_\_  
 Engine make \_\_\_\_\_ Model \_\_\_\_\_  
 Pump make \_\_\_\_\_ Model \_\_\_\_\_  
 Pump rated capacity \_\_\_\_\_ (gpm) (L/min) at \_\_\_\_\_ (psi) (kPa)  
 Speed check taken from \_\_\_\_\_ Ratio to engine \_\_\_\_\_  
 Test site location \_\_\_\_\_  
 Tests performed from  Draft  Hydrant  
 Suction hose size \_\_\_\_\_ (in.) (mm) Length \_\_\_\_\_ (ft) (m)

	At start of tests	At end of tests
Atmospheric pressure		
Air temperature		
Water temperature		
Elevation of test site		
Lift		

Governed engine speed \_\_\_\_\_ Actual maximum engine speed \_\_\_\_\_  
 Verify operation of pump shift indicator \_\_\_\_\_  
 Verify operation of pump engine control interlock at pump operator's panel \_\_\_\_\_  
 Maximum vacuum attained \_\_\_\_\_ Vacuum drop in 5 minutes \_\_\_\_\_  
 Time to prime pump \_\_\_\_\_  
 Pressure control device test:  
     Rise while pumping capacity at 150 psi \_\_\_\_\_  
     Rise while pumping capacity at 90 psi \_\_\_\_\_  
     Rise while pumping 50 percent capacity at 250 psi \_\_\_\_\_  
 Intake relief valve test results \_\_\_\_\_  
 Tank to pump water flow test \_\_\_\_\_ (gpm) (L/min)  
 Gauge accuracy \_\_\_\_\_ Flowmeter accuracy \_\_\_\_\_

**Pump Test Results**

	Capacity test	Overload test	200 psi test	250psi test
Duration				
Average nozzle pressure				
Corrected pressure				
Gallons per minute				
Average pump pressure				
rpm--engine				
rpm-pump				

Comments \_\_\_\_\_

**FIGURE C.3(c) Pump Performance Test Form.**

**20-Minute Capacity Test**

Layout \_\_\_\_\_ Nozzle size \_\_\_\_\_ Position of transfer valve \_\_\_\_\_

Time	Counter (if used)	rpm	Tach	Engine Temperature	Oil Pressure	Voltage	Automatic Transmission Temp (if equipped)	Pump Intake		Pump Discharge		Pitot/ Flow
								Apparatus gauge	Test gauge	Apparatus gauge	Test gauge	

**5-Minute Overload Test**

Layout \_\_\_\_\_ Nozzle size \_\_\_\_\_ Position of transfer valve \_\_\_\_\_


**10-Minute 200 psi Test**

Layout \_\_\_\_\_ Nozzle size \_\_\_\_\_ Position of transfer valve \_\_\_\_\_


**10-Minute 250 psi Test**

Layout \_\_\_\_\_ Nozzle size \_\_\_\_\_ Position of transfer valve \_\_\_\_\_


Person conducting the test \_\_\_\_\_

Representing \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_

AHJ representative \_\_\_\_\_ Date \_\_\_\_\_

**FIGURE C.3(c)** *Continued*