| Electric Ca Fire Pump | lifornia Code of Regulation Inspection, Testing, and Maint | s - Title 19 enance | Annual Report | 1 of 7 |
|--------------------------|---|------------------------|-----------------------|----------|
| Property Information | TE OF CALLEON | Contractor o | r Licensed Owner Info | ormation |
| Building Name | | Name | | |
| Address | THE STATE | Address | | |
| | FIRE MARIE | City | St. | Zip |
| City | License # | Phone | | |
| Contact Person | SFM | Job # | | |
| Phone | CSLB | Misc. | | |

| Pump and Driver Information | | | | | |
|---------------------------------|--|---|--|--|--|
| Max Suction Pressure | psi | Driver Mfr. | | | |
| Max psi (shutoff) | psi | Driver Model | | | |
| Rated Capacity | gpm | Driver Rated RPM | | | |
| Rated Pressure | psi | Full Load Amp (FLA) | Amp | | |
| 150% Rated Capacity | gpm | Rated Voltage | Volts | | |
| Rated Pressure @ Rated Capacity | psi | Service Factor (SF) | | | |
| | | | | | |
| | Max Suction Pressure Max psi (shutoff) Rated Capacity Rated Pressure 150% Rated Capacity | Max Suction PressurepsiMax psi (shutoff)psiRated CapacitygpmRated Pressurepsi150% Rated Capacitygpm | Max Suction PressurepsiDriver Mfr.Max psi (shutoff)psiDriver ModelRated CapacitygpmDriver Rated RPMRated PressurepsiFull Load Amp (FLA)150% Rated CapacitygpmRated Voltage | | |

Where the pump and driver manufacturer's recommendations are not available, use the items in this form, which reference NFPA 25, Table 8.5.3. If the manufacturer's recommendations are available, then those recommendations are to be used.

| | Annual Flow Test | | | | | | | | | | |
|------------|------------------|---------------|---|------------|--------------------|---------|----------|-----------------------|------------------|----------------|-----------------------|
| | | Flow (gpm) | Suction (psi) | | Discharge (psi) | | Net | Net Pressure (psi) | | peed pm) | |
| | | | | | | | | | | | |
| Churn (0%) | | Phase | Volts | | | Amps | | | VxA | Rated V | x FLA x SF |
| 8.3.5.1 | | A-B | | | | | | | | | |
| | | B-C | | | | | | | | | |
| | | C-A | | | | | | | | | |
| | 8.3.5.5 | V x A accepta | able? 🗌 Yes | | 0 | | 8.3.5.6 | 5 Voltage a | cceptable? | Yes | No |
| | Nozzle # | Size | Pitot Pressure | Flo (gp | | Phas | e | Volts | Amps | V x A | Rated V x FLA x SF |
| | 1 | | | | | | | | | | |
| 100% | 2 | | | | | | | | | | |
| Rated Flow | 3 | | | | | | | | | | |
| | 4 | | | | | 8.3.5.5 | V x A a | cceptable? | Yes | No No | |
| | 5 | | | | | 8.3.5.6 | Voltage | acceptable | ? Yes | No No | |
| | 6 | | | | | | | | | | |
| | Nozzle # | Size | Pitot Pressure | Flo (gp | | Phas | e | Volts | Amps | V x A | Rated V x FLA x SF |
| | 1 | | | | | | | | | | |
| | 2 | | | | | | | | | | |
| 150% | 3 | | | | | | | | | | |
| Rated Flow | 4 | | | | | 8.3.5.5 | V x A a | cceptable? | | Yes 🗌 No | |
| | 5 | | | | | 8.3.5.6 | Voltage | acceptable | ? Yes | No No | |
| | 6 | | | | | Suction | pressure | e at 150% of | rated flow at le | east 0 psi? | Yes 🗌 No |
| | | | d per NFPA 20, us at least 3 psi? (8 | | on tanks | | | permitted th | e suction pres | sure to be not | less than 3 |

| Electric Fire Pump | California Code of Regulations Inspection, Testing, and Mainte | a - Title 19 enance | Annual Report | 2 of 7 |
|-----------------------|---|------------------------|-----------------------------|--------|
| Property Information | E OF CALIFORN | Contracto | or or Licensed Owner Inform | ation |
| Building Name | | Name | | |
| Address | | Job # | | |
| City | FIRE MARCE | | | |

| Fire Pump Test Curves | |
|--|---------------|
| Manufacturer's shop test curve | 1. 8.3.5.3(1) |
| Original adjusted fire pump curve using net pump pressures | 2. 8.3.5.3(1) |
| Current adjusted fire pump curve using net pump pressures | 3. 8.3.5.3(1) |
| Original unadjusted fire pump curve using net pump pressures | 4. 8.3.5.3(1) |
| Current unadjusted fire pump curve using net pump pressures | 5. 8.3.5.3(1) |
| Current unadjusted fire pump curve using total pump pressure + supply pressure | 6. 8.3.5.7 |
| *Note: The fire nume nameplate data is permitted to be used if the manufacturer's shop test curve is unavailable | (8 3 5 3(2)) |

*Note: The fire pump nameplate data is permitted to be used if the manufacturer's shop test curve is unavailable. (8.3.5.3(2))

| | Test Results and Evaluation (8.3.5.7) | | | | | | |
|--|---|---|------------|-----------------------------|-------------------------------|--------------------|--|
| Fire Protect | ction System Demand Informati | on | | Fire | Pump | | |
| Type of System | Required Pressure at the Pump Discharge Flange (psi) | Is the fire pump capable of supply the system demand using the unadjusted pump curve? | | | and using the | | |
| | | | 🗌 Yes 📃 No | | | | |
| | | | 🗌 Yes 📃 No | | | | |
| | | | Yes No | | | | |
| | | | 🗌 Yes 📃 No | | | | |
| | | | 🗌 Yes 📃 No | | | | |
| Are fire pump test results satisfactory? | | | Yes 🗌 No | 8.1.6 8.3.5 8.3.5.2.1 | 8.3.5.3 8.3.5.4 8.3.5.5 | 8.3.5.6 8.3.5.7 | |

| | Annual Fire Pump Inspection, Testing and Maintenance Include ALL Monthly and Annual Inspection, Testing, and Maintenance Items | | | | | |
|------|--|--|---------------------------------------|-------|------------------------------------|---------|
| | | I = Inspection T = Test M = Maintenance | | P = F | Pass F = Fail N/A = Not Applicable | 9 |
| ltem | | Description | NFPA 25 CA ed. Reference | Date | Comments Only | P,F,N/A |
| | | Fire pump Start/Stop Pressures | | | | |
| 1.01 | I | Fire Pump Start Pressure | 8.3.2.8(1)(f) | | psi | |
| 1.02 | I | Fire Pump Stop Pressure | 8.3.2.8(1)(f) | | psi | |
| 1.03 | I | Pressure Maintenance Pump Start Pressure | 8.3.2.8(1)(g) | | psi | |
| 1.04 | I | Pressure Maintenance Pump Stop Pressure | 8.3.2.8(1)(g) | | psi | |
| | | Pump House | | | | |
| 1.05 | I | Pump House Heating and Ventilating Louvers. Illumination | 8.2.2(1)(a) 8.2.2(1)(b) 8.3.4.3 | | | |
| | | Fire Pump System | | | | |
| 1.06 | Ι | Control Valves - Identification Sign | 13.3.1 | | | |
| 1.07 | I | Control Valves - Inspection | 13.3.2 | | | |
| 1.08 | Ι | Pump Suction, Discharge & Bypass Valves Open | 8.2.2(2)(a) | | | |
| 1.09 | I | Normally Closed Valves are Closed (Test Header/Venturi Meter) | 8.2.2(2)(g) 13.3.2.2 | | | |

| Electric Fire Pump | California Code of Regulation Inspection, Testing, and Maint | s - Title 19 tenance | Annual Report | 3 of 7 |
|-----------------------|---|-------------------------|-----------------------------|--------|
| Property Information | THE OF CALLEON | Contract | or or Licensed Owner Inforn | nation |
| Building Name | | Name | | |
| Address | | Job # | | |
| City | FIRE MARIE | | | |

. . .

| | Annual Fire Pump Inspection, Testing and Maintenance Include ALL Monthly and Annual Inspection, Testing, and Maintenance Items | | | | | |
|------|--|---|-----------------------------|------|--|---------|
| | | Include ALL Monthly and Annual Inspection T = Test M = Maintenance | ection, Testing, a | | nance Items Pass F = Fail N/A = Not Applicable | e |
| Item | | · · · · · · · · · · · · · · · · · · · | NFPA 25 CA ed. Reference | Date | Comments Only | P,F,N/A |
| 1.10 | 1 | Piping is Free of Leaks | 8.2.2(2)(b) | | | |
| 1.11 | I | Suction Line Pressure Gauge Reading within Acceptable Range (same as water level in tank or static pressure in water main) | 8.2.2(2)(c) | | | |
| | | Suction Pressure Reading | 8.2.2(2))c) | | psi | |
| 1.12 | ı | Discharge Line Pressure Gauge Reading within Acceptable Range (same as suction gauge reading) | 8.2.2(2)(d) | | | |
| | | Discharge Pressure Reading | 8.2.2(2)(d) | | psi | |
| 1.13 | I | Suction Reservoir Full | 8.2.2(2)(e) | | | |
| 1.14 | I | Wet Pit Suction Screens are Unobstructed and in Place | 8.2.2(2)(f) | | | |
| 1.15 | I | Check Pump Packing Glands for Slight Discharge (pump not running) | 8.2.2(2)(h) | | | |
| 1.16 | 1 | Check Pump Packing Glands for Slight Discharge (pump running) | 8.3.2.8(1)(b) | | | |
| 1.17 | I | Suction Line Pressure Gauge Reading (pump running) | 8.3.2.8(1)(a) | | psi | |
| 1.18 | I | Discharge Pressure Gauge Reading (pump running) | 8.3.2.8(1)(a) | | psi | |
| 1.19 | 1 | Check for Unusual Noise or Vibration | 8.3.2.8(1)(d) | | | |
| 1.20 | I | Check Packing Boxes, Bearings, or Pump Casing for Overheating | 8.3.2.8(1)(e) | | | |
| 1.21 | I | Circulation Relief Valve Operating Properly | 13.5.7.1.2 | | | |
| 1.22 | I | Observe Time for Motor to Accelerate to Full Speed | 8.3.2.8(2)(a) | | | |
| 1.23 | 1 | Record Time the Controller is on 1st Step (for reduced voltage or reduced current starting) | 8.3.2.8(2)(b) | | | sec |
| 1.24 | т | Record Time Pump Runs after Starting (for automatic stop controllers) | 8.3.2.8(2)(c) | | | min |
| 1.25 | т | Control Valve Test | 13.3.3 | | | |
| 1.26 | М | Control Valve Maintenance | 13.3.4 | | | |
| 1.27 | м | Adjust Gland Nuts, if Necessary | 8.3.2.8(1)(c) | | | |
| | - | Electrical System Conditions | | | | |
| 1.28 | I | Controller "Power On" Pilot Light is Illuminated | 8.2.2(3)(a) | | | |
| 1.29 | I | Transfer Switch Normal Pilot Light is Illuminated | 8.2.2(3)(b) | | | |
| 1.30 | Ι | Isolating Switch is Closed - standby (emergency) source | 8.2.2(3)(c) | | | |
| 1.31 | I | Reverse Phase Alarm Pilot Light is Off, or, Normal phase Rotation Pilot Light is On | 8.2.2(3)(d) | | | |

| Electric Fire Pump | California Code of Regulations Inspection, Testing, and Mainte | s - Title 19 Annual enance Report | 4 of 7 |
|-----------------------|---|--|--------|
| Property Information | LE OF CALIFORN | Contractor or Licensed Owner Informati | ion |
| Building Name | | Name | |
| Address | | Job # | |
| City | FIRE MARIE | | |

| | Annual Fire Pump | | | | | |
|------|--|---|--|-------|---|---------|
| | Inspection, Testing and Maintenance Include ALL Monthly and Annual Inspection, Testing, and Maintenance Items | | | | | |
| | | I = Inspection T = Test M = Maintenance | NFPA 25 CA ed. | P = I | Pass F = Fail N/A = Not Applic | able |
| Item | | Description | Reference | Date | Comments Only | P,F,N/A |
| 1.32 | Т | Oil Level in Vertical Motor Sight Glass is within Acceptable Range | 8.2.2(3)(e) | | | |
| 1.33 | I | Power to Pressure Maintenance (Jockey) Pump is Provided | 8.2.2(3)(f) | | | |
| | | Tests | | - | | |
| 2.01 | Т | Engine Generator Sets (Monthly) | NFPA 110 | | | |
| 2.02 | т | Exercise Isolating Switch and Circuit Breaker | Table 8.1.2 | | | |
| 2.03 | т | Annual Test - Indicate Method of Discharge If the current test does NOT use the method described in 8.3.3.1.2.1 - then indicate the DATE the last time this method was used: | 8.3.3.1.2.1 8.3.3.1.2.2 8.3.3.1.2.3 8.3.3.1.3 | | 8.3.3.1.2.1 8.3.3.1.2.2 8.3.3.1.2.3 | |
| 2.04 | Т | Automatic Transfer Switch Test | 8.3.3.4 | | | |
| 2.05 | Т | Alarm Tests | 8.3.3.5 | | | |
| 2.06 | Т | Electronic Fuel Management Control System Test | 8.3.3.8 | | | |
| 2.07 | Т | Trip Circuit Breaker | Table 8.1.2 | | | |
| 2.08 | Т | Operate Manual Starting Means | Table 8.1.2 | | | |
| 2.09 | М | Inspect and Operate Emergency Manual Starting Means (without power) | Table 8.1.2 | | | |
| 2.10 | Т | Parallel and Angular Alignment Test | 8.3.3.4 | | | |
| | | Maintenance | | | Í | |
| 3.01 | М | Lubricate Pump Bearings | Table 8.1.2 | | | |
| 3.02 | М | Check Pump Shaft End Play | Table 8.1.2 | | | |
| 3.03 | М | Check Accuracy of Pressure Gauges | Table 8.1.2 | | | |
| 3.04 | М | Check Pit Suction Screens | Table 8.1.2 | | | |
| 3.05 | М | Lubricate Coupling | Table 8.1.2 | | | |
| 3.06 | М | Lubricate Right-angle Gear Drive | Table 8.1.2 | | | |
| 3.07 | М | Tighten Electrical Connections | Table 8.1.2 | | | |
| 3.08 | М | Lubricate Mechanical Moving Parts (excluding starters and relays) | Table 8.1.2 | | | |
| 3.09 | М | Calibrate Pressure Switch Settings | Table 8.1.2 | | | |
| 3.10 | М | Grease Motor Bearings | Table 8.1.2 | | | |
| 3.11 | М | Check Voltmeter and Ammeter for Accuracy | Table 8.1.2 | | | |
| 3.12 | М | Corrosion on Printed Circuit Boards | Table 8.1.2 | | | |
| 3.13 | М | Any Cracked Cable/Wire Insulation | Table 8.1.2 | | | |

| Electric Fire Pump | California Code of Regulation Inspection, Testing, and Maint | s - Title 19 Annual enance Report 5 of 7 |
|-----------------------|---|---|
| Property Information | THE OF CALLEOR | Contractor or Licensed Owner Information |
| Building Name | | Name |
| Address | | Job # |
| City | FIRE MARIE | |

| Annual Fire Pump Inspection, Testing and Maintenance include ALL Monthly and Annual Inspection, Testing, and Maintenance Items | | | | | | | | | | | |
|--|---|---|--|------|---------------|---------|--|--|--|--|--|
| | | I = Inspection T = Test M = Maintenance | P = Pass F = Fail N/A = Not Applicable | | | | | | | | |
| Item | | Description | NFPA 25 CA ed. Reference | Date | Comments Only | P,F,N/A | | | | | |
| 3.14 | М | Any Leaks in Plumbing Parts | Table 8.1.2 | | | | | | | | |
| 3.15 | М | Any Signs of Water on Electrical Parts | Table 8.1.2 | | | | | | | | |
| 3.16 | М | Suction Screens | 8.3.3.7 | | | | | | | | |
| 3.17 | М | Is Obstruction Investigation Required? If "Yes", see Deficiencies and Comments Section for Results. | 14.3 | | ☐ Yes ☐ No | | | | | | |
| 3.18 | М | System Returned to Service | 4.5.3 15.7 | | ☐ Yes ☐ No | | | | | | |

D = Deficiency C = Comment (Indicate type)

| Item | Date | Riser | D | С | Deficiencies and Comments Indicate all equipment, devices and parts that were repaired or replaced | | | |
|--|------|-------|---|---|--|--|--|--|
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Check here if additional Deficiencies and Comments are listed on Form AES9 See Correction Form AES 10 for corrected deficiencies. Number attached: | | | | | | | | |
| I hereby certify that the fire protection equipment listed above has been fully inspected, tested, and maintained on this date by the company indicated above, in accordance with CCR, Title 19, Sections 901 to 906 and that the equipment is fully operable except as noted in the "Deficiencies and Comments" section of this form. | | | | | | | | |
| Print Na | | | | | | | | |
| Signatu | | Date | | | | | | |





- Curve Identification: 1. Manufacturer's shop test curve
- Original adjusted fire pump curve
 Current adjusted fire pump curve





Curve Identification:

6. Original unadjusted fire pump curve
5. Current unadjusted fire pump curve
6. Current unadjusted fire pump curve using total pump pressure + supply pressure