

Report of Inspection/Test

Annual AFPS Fire Sprinkler Inspection

June 06, 2007

Property

Customer Example
1234 Practice Lane
Atlanta, GA 30305

Owner/Agent

6100 GA Highway 20
Loganville, GA 30052
Phone: 770-554-3004
Fax: 770-554-5095
www.alliancefire.com



Conducted by: Patrick Davis
Inspection Ref: 28096

System Off	5:00	Monitoring Company	Operator	Alarm Panel/Code
System On	9:00		John Gammons	Fire lite MS 9200 NA

System Function Summary & Test

Function	Description	Test Result
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Fire Pump Supervisory Functions

Fire Pump Power	Fire Pump Power not connected or off is supervised by the alarm system	Pass
Fire Pump Running	Fire Pump Running is detected by the alarm system	Pass
Fire Pump Phase Reversal	Fire Pump Phase Reversal is detected by the alarm system	Not Tested
Fire Pump Auto Position	Fire Pump Controller in the Automatic Position is supervised by the alarm system	Pass
Fire Pump or Pump Controller Trouble	Fire Pump or Pump Controller Trouble is supervised by the alarm system	Pass

Disclaimer

This inspection was conducted based on NFPA 25 standards and is not intended to be an engineering review. This facility may contain areas where coverage does not meet current NFPA standards. Separate recommendations will be provided to correct any of these areas that may exist in the facility as determined by the sole discretion of the inspector.

General Building Information

1979 Year in which the building was built?
Yes Is the building occupied?
No Is a calculation and data plate installed on each sprinkler system riser?
Calculation and data plates need to be installed on existing sprinkler system.
Yes Are all systems in service?

Alarms

NA Did the water motor gong operate during testing?
No Did the electric alarm test satisfactorily and meet the 90 second requirement?
2 1/2" Flow switch did not operate and needs to be investigated.
No Did the supervisory alarm test satisfactorily?
Tamper switch on control valve did not operate and needs to be investigated.

Cold Weather Check

Yes Adequate heat in areas with wet piping?
NA Low temperature alarms in dry pipe, preaction and deluge valve enclosures functioning?
Yes Interior of pipe in preaction and dry pipe systems which passes through freezers free of ice blockage?
NA Low points drained in dry pipe, preaction and deluge systems prior to the onset of freezing weather?

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Control Valve

- Yes Control valves in correct (open or closed) position?
- Yes Control valves sealed, locked or supervised and accessible?
- Yes All control valves operated through full range and returned to normal position?
- Yes Operating stem of all OS&Y valves lubricated, completely closed, and reopened?

Fire Department Connection

- Yes Visible and accessible?
- No** Couplings and swivels not damaged and rotate smoothly?
Fire department swivels have frozen up and need to be disassembled, cleaned and lubricated.
- Yes Plugs or caps in place and undamaged?
- Yes Gaskets in place and in good condition?
- Yes Identification sign(s) in place?
- Yes Check valve is not leaking?
- Yes Automatic drain valve in place and operating properly?
- NA Interior free of obstructions (if caps are not in place) ?
- NA Valve clapper operational over its full range (if caps are not in place) ?

Fire Pump Electric Flow Test

- Yes Pump test run by discharge of flow through hose streams. Flow readings were taken at each hose stream.
- NA Pump test run by discharge through by-pass flow meter to drain or suction reservoir. Flow readings taken by flow meter.
- NA Pump test run by discharge through by-pass flow meter directly returned to pump suction. Flow readings taken by flow meter.
- Yes Are the pressure readings acceptable?
- Yes No-flow (churn) test run for 30 min?
- Yes Circulation relief valve and pressure relief valve operated properly during all flow tests?
- Yes No alarm indicators or other visible abnormalities observed during no-flow test?
- NA Low suction throttling device test: Low suction pressure simulated?
- Yes Low suction throttling device test: Free from abnormalities in throttling action?
- Yes Low suction throttling device test: Free from abnormalities in return to full flow?
- NA Automatic transfer switch test: Power failure simulated during peak flow?
- NA Automatic transfer switch test: Connection made to alternate power source?
- NA Automatic transfer switch test: After termination of simulated power failure did motor reconnect to the normal power source?
- Yes Did pump operate without any unusual noises coming from the pump or controller during the inspection?
- Yes Does the building have a test header?
- Yes Are fire and jockey pump sensor lines run correctly?
- Yes Was the fire pump packing in satisfactory condition?
- 195 Jockey Pump Mercoid Switch "On" Setting:
- 210 Jockey Pump Mercoid Switch "Off" Setting:
- 185 Jockey Pump Pressure Drop "On" PSI:
- 205 Jockey Pump Pressure Drop "Off" Setting:
- 160 Fire Pump Mercoid Switch "On" Setting:
- 185 Fire Pump Mercoid Switch "Off" Setting:
- 160 Fire Pump Pressure Drop "On" PSI
- 195 Fire Pump Pressure Drop "Off" PSI:

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Fire Pump Electric Flow Test Data

61	No flow suction pressure
195	No flow discharge pressure
3573	No flow pump speed
481	No flow electrical current 1
64	No flow electrical amps 1
480	No flow electrical current 2
60	No flow electrical amps 2
484	No flow electrical current 3
66	No flow electrical amps 3
38	100% suction pressure
155	100% discharge pressure
752	100%, flow
3540	100% pump speed
479	100% electrical current 1
90	100% electrical amps 1
478	100% electrical current 2
88	100% electrical amps 2
482	100% electrical current 3
93	100% electrical amps 3
21	150% suction pressure
110	150% discharge pressure
1128	150%, flow
3566	150% pump speed
479	150% electrical current 1
99	150% electrical amps 1
479	150% electrical current 2
96	150% electrical amps 2
482	150% electrical current 3
102	150% electrical amps 3

Pipe

Yes	In good condition ?
Yes	Free of mechanical damage and not leaking ?
Yes	No external corrosion ?
Yes	Properly aligned ?
Yes	No external loads ?
Yes	Visible pipe hangers and seismic braces not damaged or loose ?
No	Was an obstruction investigation conducted and the system flushed ?

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Sprinklers

- Yes Sprinkler wrench with spare sprinklers?
- Yes Proper number and type of spare sprinklers?
- Yes Free of corrosion?
- No** Free of obstructions to spray patterns?
(2) sprinkler heads need to be recut at front entrance.
(15) sprinkler heads need to be recut in Auditorium.
(1) sprinkler head needs to be recut at rear entrance.
- Yes Free of foreign materials including paint?
- No** Free of physical damage?
(15) escutcheon plates are missing and need to be replaced in Auditorium.
(1) escutcheon plate is missing and needs to be replaced at rear entrance.
- Yes Are all sprinklers in service dated 1920 or later?
- NA Fast Response sprinklers in service for less than 20 years? If "no" test sample now and every 10 years.
- Yes Standard sprinklers less than 50 years old ? If no test sample now and every 10 years.
- Yes If sprinklers have been replaced, were they proper replacements?
- NA Sprinklers and spray nozzles protecting commercial cooking equipment and ventilating systems replaced except for bulb-type which show no signs of grease buildup?
- Yes Are all sprinkler heads of the correct type and orientation for their application?
- Yes Is location free of Omega or Central Replacement Program heads?

Water Based System

- Yes Gauges on wet pipe system in good condition and showing normal water supply pressure?
- No** Alarm devices free from physical damage?
2 1/2"Flow switch did not operate and needs to be investigated.
- No** Valve supervisory switches indicate movement?
Tamper switch on control valve did not operate and needs to be investigated.

Valve Inspection List

Description	# of Valves	Type	Size	Secured	Open	Easily Accessible	Signs	Exercised	Stem Lubricated
Control Valve Chart/Insp/Maint	4	OS&Y	6"	Pad Locked	Yes	Yes	NA	Yes	Yes
Fire pump control valves									

Valve Inspection List

Location	Valve Type	Size	Secured	Seal	Inspection				Maint.		Flow Test			
					Leakage	Open	Accessible	Signs	Exercised	# of Turns	Lubricated	Tamper	Alarm	Time to Alarm

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Valve Inspection List

Location	Valve Type	Size	Secured	Seal	Inspection				Maint.			Flow Test					
					Leakage	Open	Accessible	Signs	Exercised	# of Turns	Lubricated	Tamper	Alarm	Time to Alarm	Static Prior	Residual	Static After
Heat Detector	Butterfly	3"	Pad Locked	NA	Ok	Ok	Ok	X	Ok	10	NA	X	X	0	0	0	0

Valve tags need to be installed on control valve assemblies.; Tamper switch on control valve did not operate and needs to be investigated.; 2 1/2"Flow switch did not operate and needs to be investigated.

Ok - Passes Inspection S - Serviced on site X - Requires Service NA - Not Applicable

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Pump Equipment/Component Summary

ITEM	MAKE	MODEL	SERIAL #
	DESCRIPTION		
Fire Pump	Patterson	6x5 MA	79P13885-L5
	125 psi 750 gpm	Horizontal	
Motor			
	100 HP 3525 RPM	460 VAC 60 cycles	
Fire Pump Controller	Firetrol	FTA-1000A-A100B	106396
Jockey Pump	Burks	315CS5M	165741
Jockey Pump Controller	Firetrol	FTA-500B-D03B	106904
Transfer Switch	NA	NA	NA

Fire Pump Performance

Flow (measured)		Pressure (measured)			Speed (rpm)	Electric Motor			
% Rated	gpm	Net	Suction	Discharge			L1	L2	L3
Churn	0	134	61	195	3,525	Volts Amps	481 64	480 60	484 66
100%	751	117	38	155	3,525	Volts Amps	479 90	478 88	482 93
150%	1,127	89	21	110	3,525	Volts Amps	479 99	479 96	482 102

Pump Flow Test Measured Flow Detail

Flow	Stream 1		Stream 2		Stream 3		Stream 4		Stream 5		Stream 6	
	Pitot Orifice	Flow	Pitot Orifice	Flow	Pitot Orifice	Flow	Pitot Orifice	Flow	Pitot Orifice	Flow	Pitot Orifice	Flow
gpm	C		C		C		C		C		C	
Churn												
0												
100%	18	376	18	376								
751	1.75 0.97		1.75 0.97									
150%	18	376	18	376	18	376						
1,127	1.75 0.97		1.75 0.97		1.75 0.97							

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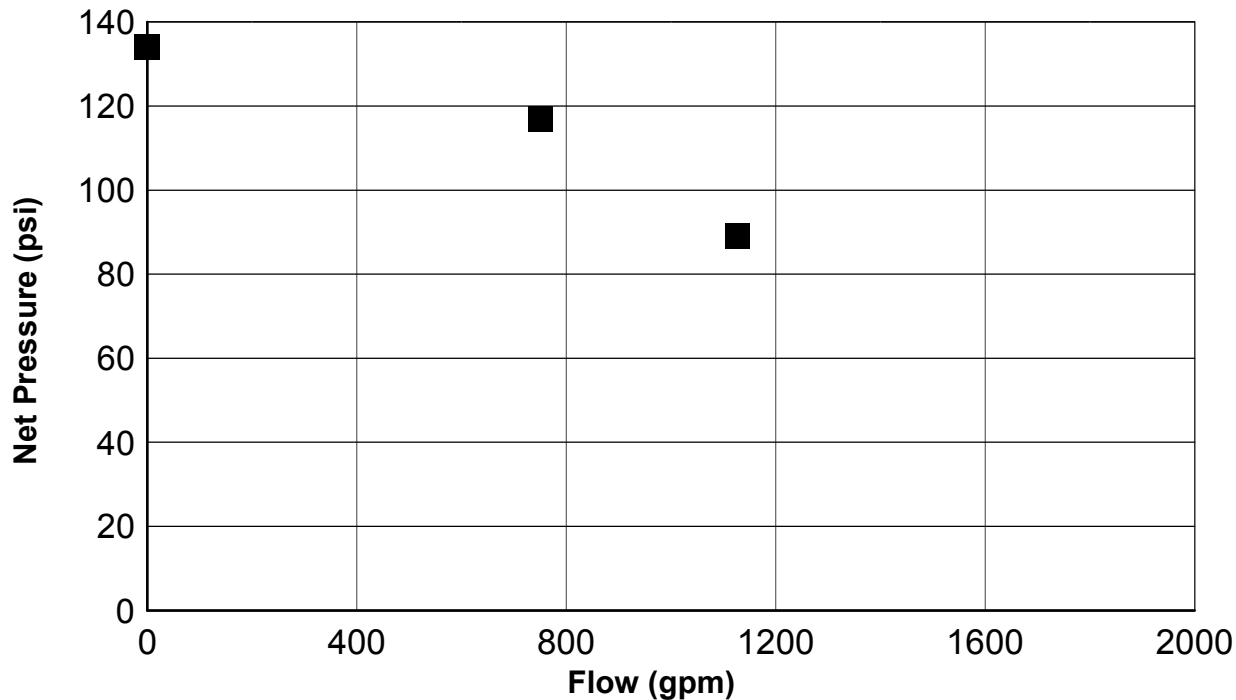
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Pressure versus Flow



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Deficiency Summary

These items were deficient and do not meet the requirements of the applicable code at the time of the inspection. Items marked *Recommendation* are not required by the applicable code but are opportunities to improve the Life Safety of the property.

General Building Information

No Is a calculation and data plate installed on each sprinkler system riser?
Calculation and data plates need to be installed on existing sprinkler system.

Alarms

No Did the electric alarm test satisfactorily and meet the 90 second requirement?
2 1/2"Flow switch did not operate and needs to be investigated.

No Did the supervisory alarm test satisfactorily?
Tamper switch on control valve did not operate and needs to be investigated.

Control Valve Chart/Seal/Insp/Maint/Test - Gauges

X Signs in Place
Valve tags need to be installed on control valve assemblies.
NFPA-25-2002 12.3.2.2(6) *The valve inspection shall verify that the valves are in the following condition (f) Provided with appropriate identification*

X Tamper Ok ?
Tamper switch on control valve did not operate and needs to be investigated.

X Alarm Ok ?
2 1/2"Flow switch did not operate and needs to be investigated.

Fire Department Connection

No Couplings and swivels not damaged and rotate smoothly?
Fire department swivels have frozen up and need to be disassembled, cleaned and lubricated.
NFPA-25-2002 12.7.1(2) *Fire department connections shall be inspected quarterly. The inspection shall verify the following: (b) Couplings or swivels are not damaged and rotate smoothly.*

Sprinklers

No Free of obstructions to spray patterns?
(2) sprinkler heads need to be recut at front entrance.
(15) sprinkler heads need to be recut in Auditorium.
(1) sprinkler head needs to be recut at rear entrance.
NFPA-25-2002 5-2.1.2 *Unacceptable obstructions to spray patterns shall be corrected. A-5-2.1.2 Obstructions to spray patterns include horizontal obstructions near the ceiling, vertical obstructions, suspended or floor-mounted obstructions, and clearances between sprinklers and storage below. The clearance requirement between sprinkler deflectors and the top of storage is typically 18 in. (457 mm). Specific guidance for clearance and obstructions is found in NFPA 13, Standard for the Installation of Sprinkler Systems; NFPA 231, Standard for General Storage; NFPA 231C, Standard for Rack Storage of Materials, and other standards and specific sprinkler listings.*

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Sprinklers

No Free of physical damage?

(15) escutcheon plates are missing and need to be replaced in Auditorium.

(1) escutcheon plate is missing and needs to be replaced at rear entrance.

NFPA-25-2002 5.2.1.1 *Sprinklers shall be inspected from the floor level annually. Sprinklers shall be free of corrosion, foreign materials, paint, and physical damage and shall be installed in the proper orientation (e.g., upright, pendant, or sidewall). Any sprinkler shall be replaced that is painted, corroded, damaged, loaded, or in the improper orientation.*

Water Based System

No Alarm devices free from physical damage?

2 1/2" Flow switch did not operate and needs to be investigated.

NFPA-25-2002 5.2.6 *Alarm devices shall be inspected quarterly to verify that they are free of physical damage.*

No Valve supervisory switches indicate movement?

Tamper switch on control valve did not operate and needs to be investigated.

NFPA-25-2002 12.3.3.5 *Valve supervisory switches shall be tested semiannually. A distinctive signal shall indicate movement from the valve's normal position during either the first two revolutions of a hand wheel or when the stem of the valve has moved one fifth of the distance from its normal position. The signal shall not be restored at any valve position except the normal position.*