

Liberty Fire Protection, Inc.

Fire Sprinkler Inspection Report

SITE NAME: RUTLEDGE BUILDING

DATE: JANUARY 11, 2016

ADDRESS: 1429 SENATE STREET, COLUMBIA, SC 29201

INSPECTOR: JIMMY McMULLAN

INSPECTION FREQUENCY : MONTHLY QUARTERLY SEMI-ANNUAL **ANNUAL**

	YES	N/A	NO
1. GENERAL (ALL RESPONSES REFERENCE CURRENT INSPECTION)			
a. Is the building occupied?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Are all systems in service?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. If required, hydraulic data plates in place, securely attached and permanently marked?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Is all stock or storage properly below sprinklers?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Is the visible exterior of the system piping in good condition and free from damage?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. All visible hangers in place securely attached and free of corrosion	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. All gauges in good condition, showing normal pressure and not in need of a 5 year test?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. CONTROL VALVES			
a. Are all sprinkler system control valves open, sealed or supervised?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Are all other valves in proper position?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. WATER SUPPLY			
a. Was a water flow test made and results satisfactory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. TANK, PUMPS, FIRE DEPARTMENT CONNECTIONS			
a. Are fire pumps, reservoirs, gravity tanks and pressure tanks in good condition?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Are fire department connections in good condition, couplings free and caps in place?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. WET SYSTEMS			
a. Anti-freeze solution been tested and results satisfactory? Specific gravity results: _____	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Are alarm valves, water flow indicators and retard chambers in good condition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Have all system check valves and piping been internally inspected within the last 5 years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. DRY SYSTEMS, PRE-ACTION & DELUGE			
a. Is the valve in service and in good condition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Air pressure and priming water level at normal levels?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Air compressor in good condition and operating properly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Were all low points drained during the inspection? How many were drained?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Are quick opening devices in service & in good condition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. Was the valve trip tested as required?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g. Is the valve adequately protected from freezing?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h. Valve house and heater in good condition?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7. SPECIAL SYSTEMS			
a. Were valves and detectors tested as required?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Were all heat responsive systems tested and results satisfactory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Were all manual actuators tested and results satisfactory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8. ALARMS			
a. Water motor gong and or electric bell test satisfactory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Were supervisory features tested and results satisfactory?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Was the fire alarm test satisfactory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9. SPRINKLERS			
a. Are all sprinklers in good condition, not obstructed, and free of corrosion?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Are all standard sprinklers less than 50 years old & fast response less than 20 years old?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Are all dry barrel sprinklers less than 10 years old?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Spare sprinkler cabinet with the proper size and type of sprinklers and wrenches on site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Are all sprinklers of proper temperature & orientation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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Site Name: Rutledge Building

Date: January 11, 2016

10. Wet system:

a. Quantity, size, make, model of valve: **Standpipe**

11. Dry system: N/A

Valve Information				Quick Opening Device Information		
Size	Make	Model	Serial #	Make	Model	Serial #

Valve Trip Test Information						
Water Pressure	Air Pressure	Air Pressure Trip Point	Valve Trip Time	Time Water Reached ITV	QOD Trip Pressure	QOD Trip Time

12. Pre-Action / Deluge System: N/A

Valve Information					
Size	Make	Model	Pneumatic	Electric	Hydraulic

Piping supervised: YES NO Air Psi: _____ Detecting media supervised: YES NO

Does valve operate from manual trip: YES NO and or remote control stations: YES NO

Number and type of detectors to trip solenoid valve or releasing device: _____

13. CONTROL VALVES:

* (RWV) ROAD WAY VALVE, (PIV) POST INDICATOR VALVE, (BFV) BUTTERFLY VALVE, (OS&Y) OUTSIDE SCREW & YOKE *

Valve Location/Function	Quantity	Size	Type	Sealed	Locked	Tamper
Pump room / Backflow	2	6"	OSY			X
Pump room / Fire pump suction	1	6"	OSY			X
Pump room / Fire pump discharge	1	6"	OSY			X
Pump room / Bypass	2	6"	BFV			X
Pump room / Jockey suction	1	2"	OSY	001597		
Pump room / Jockey discharge	1	1.5"	OSY	001615		

14. WATER FLOW TEST

a. Water Pressure: City 45 PSI Tank N/A PSI Fire Pump 220 PSI

System Number and or Test Pipe location	Size	Static	Residual
N/A			

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15. EXPLANATION OF ANY "NO" ANSWERS OR COMMENTS

1) FIVE GAUGES APPEAR TO BE OUTDATED AND THE TOP GAUGE ON THE ROOF MANIFOLD IS 2008.

(NFPA 25 SECTION 5.3.2.1) GAUGES SHALL BE REPLACED EVERY 5 YEARS OR TESTED EVERY 5 YEARS BY COMPARISON WITH A CALIBRATED GAUGE.

2) ALL THE CHECK VALVES AND PIPING NEED TO HAVE AN INTERNAL INSPECTION PERFORMED.

(NFPA 25 SECTION 13.4.2.1) VALVES SHALL BE INSPECTED INTERNALLY EVERY 5 YEARS TO VERIFY THAT ALL COMPONENTS OPERATE CORRECTLY, MOVE FREELY, AND ARE IN GOOD CONDITION.

(NFPA 25 SECTION 14.2.1) AN INTERNAL INSPECTION OF PIPING AND BRANCH LINE CONDITION SHALL BE CONDUCTED EVERY 5 YEARS.

3) A FLOW TEST SHOULD BE PERFORMED ON THE STANDPIPE.

(NFPA 25 SECTION 6.3.1.1) A FLOW TEST SHALL BE CONDUCTED EVERY 5 YEARS AT THE HYDRAULICALLY MOST REMOTE CONNECTION OF EACH ZONE OF AN AUTOMATIC STANDPIPE SYSTEM TO VERIFY THE WATER SUPPLY STILL PROVIDES THE DESIGNED PRESSURE AT THE REQUIRED FLOW.

Site Contact Name: David Martin / Jamie Dooley

Inspectors Name: Jimmy McMullan

Site Contact Email: dmartin@gs.sc.gov

Inspectors Signature: *Jimmy McMullan*

Liberty Fire Protection Inc. does not assume the responsibility for the condition, serviceability, or functioning of equipment following the date of inspection, but certifies only to the condition of equipment at date of inspection.

Liberty Fire Protection, Inc.

Date: January 11, 2016

Company: Rutledge Building

Attn: David Martin/ Jamie Dooley

Re: Inspection Observation Information

Comments and Observations:

Items listed below are not part of an NFPA 25 Inspection. The identification of these items does not constitute a design review or engineering analysis of your system. These items were noticed during an inspection of your fire protection system performed in accordance with NFPA 25 but are not part of the NFPA 25 inspection. Liberty Fire Protection, Inc. makes no guarantee or assurance that any or all design or engineering defects or deficiencies have been detected.

NOTE
1. THE PACKING ON THE OS&Y VALVES ON THE BACKFLOW WERE NOT LEAKING DURING THE INSPECTION, BUT THE MAINTENANCE TECHNICIAN STATED THAT THE PACKING LEAKS CONSTANTLY AND FLOODS THE ROOM AND HAS TO BE WORKED ON CONTINUOUSLY. IF THIS IS THE CASE THEN RECOMMEND REPACKING BOTH OS&Y VALVES. (KENNEDY, 1998, KS II)
3) DID NOT PERFORM THE 150% FLOW TEST ON THE FIRE PUMP DUE TO THE PACKING STARTED TO OVERHEAT AND SMOKE. DID NOT ADJUST DUE TO THE BOLTS BEING HEAVILY CORRODED AND MAY BREAK. THE PUMP NEEDS TO BE REPACKED.

Respectfully,

Jimmy McMullan

843.297.9824

Email: jimmy@libertyfireprotectioninc.com

South Carolina
7214 Peppermill Parkway
North Charleston, SC 29418
843.552.1301
843.552.8018 fax

Georgia
912.965.0828
912.965.9559 fax

North Carolina
130 Division Drive
Leland, NC 28451
910.383.1400
910.383.1444 fax

Fire Pump Test Report

Rutledge Building
1429 Senate Street
Columbia SC. 29201

1/11/2016

Conducted by:
Liberty Fire Protection, Inc.
7214 Peppermill Parkway
North Charleston, SC 29418

FIRE PUMP TEST REPORT

Company

Name: Rutledge Building
Address: 1429 Senate Street
City/State/Zip: Columbia SC, 29201
Contact Name: David Martin
Title: Maintenance Supervisor
Phone: 803-734-1886
Fax: 803-734-6750
E-mail: dmartin@citysc.gov
Notes:

Cell: 803-513-1347

Pump

Manufacturer: Aurora **Label:** UL/FM
Model Number: Type 4-485-15
Serial Number: 97-65848
Pump Type: Horizontal **RPM:** 1770
Rating - Churn: 0 gpm @ 172 psi
100%: 500 gpm @ 160 psi
150%: 750 gpm @ 146 psi
Diameters - Impeller: 13 in
Suction Pipe: 5 in **Discharge Pipe:** 4 in
Rotation: Clockwise
Driver Type: Electric **Max. Discharge Pressure:** 171 psi

Electric Driver

Manufacturer: US Electric Motors **Label:** None
Model Number: N/A
Serial Number: ID# H016-A04A034R109M
RPM: 1775 **AMP:** 119.9
Volts: 480 **Service Factor:** 1.15
Frame: 404TS
H.P.: 100

Jockey Pump

Manufacturer: Aurora **Label:** None
Model Number: F05 935BF
Serial Number: 97-05920
Horsepower: **RPM:**
Pressure: psi **Flow:** gpm
Suction Diam: 2.00 in **Discharge Diam:** 1.50 in

Pump Controller

Manufacturer: Metron **Label:** UL/FM
Model Number: M400-150-460C
Serial Number: NE-9766934-01
On Pressure: 140 psi **Run Timer:** mins
Off Pressure: 225 psi

Jockey Pump Controller

Manufacturer: Metron **Label:**
Model Number: M15B-3-460
Serial Number: EK-9766934-02
On Pressure: 150 psi **Off Pressure:** 180 psi

Brake Horsepower

Brake Horsepower: 72.30
Max BPH: 97 @ 98 psi

Relief Valves

Casing Relief: in. psi
Pump Pressure: in. psi
Transfer Switch:
Serial Number:
Model Number:
Manufacturer:
Emergency Power Source:

FIRE PUMP TEST REPORT

Location:

Test

Date: 1/11/2018 Start: 11:45 AM End: 12:00PM
 Method:
 Suction Gauge Location: Pump Suction Flange Discharge Device: Hose Monster 2-1/2"
 Discharge Gauge Location: Pump Discharge Flange

Flows

100% P/A:	9			
150% P/A:	20			

Number	Disc. Pressure	Suct. Pressure	Flow	RPM	Net Pressure	Corrected Flow	Corrected Pressure	% Flow
1	210.0	49.0	0	1796	165.0	0.0	160.3	0.0
2	198.0	39.0	506	1790	159.0	600.2	155.5	101.2
3	170.0	34.0	754	1769	136.0	746.1	133.1	150.8

	Volts A-B	Volts B-C	Volts A-C	Amp A	Amp B	Amp C
1	465	467	466	51	52	50
2	465	465	465	99	99	99
3	464	468	465	101	107	108

Testers

Name
 Jimmy McMullan
 Jacob Lawson

Test Notes

- 1) The pump passed the 100% flow test.
- 2) Jockey pump motor does not sound good. Motor going bad

RUTLEDGE BUILDING 2016

—◆— Tested —■— Rated

