

System Functional Testing Checklist (MEP Systems)

HVAC Systems - General

General functionality and integration testing of the Heating, Ventilation, and Air Conditioning systems.

Ambient Temperature (during testing)

Supply Air Temperature (measured)

Return Air Temperature (measured)

System Operating Mode (Heating/Cooling/Auto)

- Heating
- Cooling
- Auto

Fan Speed (Low/Med/High)

Low

Medium

High

Observations/Comments (during testing)

Write something...

Date of Testing

Enter date...

Time of Testing

HVAC Systems - Air Distribution

Specific testing of air handling units, diffusers, dampers, and associated control systems.

AHU Supply Air Temperature Setpoint (Verification)

Enter a number...

AHU Return Air Temperature Differential (Verification)

Enter a number...

Damper Operation - Verify opening/closing sequence

- Pass
- Fail
- Not Applicable

Verify Diffuser Airflow Direction Control

- Horizontal
- Vertical
- Adjustable

Describe any observed noise issues with air distribution equipment.

Write something...

Static Pressure Verification (Supply Air)

- Within Tolerance
- Outside Tolerance
- Not Measured

Date of Air Distribution System Functional Test

Enter date...

HVAC Systems - Heating & Cooling Equipment

Testing of chillers, boilers, furnaces, and other primary heating and cooling equipment.

Chiller Entering Water Temperature (EWT) - Measured Value (°F)

Enter a number...

Chiller Leaving Water Temperature (LWT) - Measured Value (°F)

Enter a number...

Boiler Steam Pressure (PSI)

Enter a number...

Furnace Hot Surface Temperature (°F)

Enter a number...

Chiller Operation Mode

- Cooling
- Heating
- Standby

Boiler Sequencing - Correct Sequence?

- Yes
- No
- N/A

Describe any anomalies observed during testing of heating/cooling equipment.

Write something...

Date of Equipment Performance Test

Enter date...

Time of Equipment Performance Test

Plumbing Systems - Domestic Water

Functional testing of domestic water supply, distribution, and associated equipment.

Static Water Pressure (PSI)

Enter a number...

Flow Rate at Fixture (GPM)

Enter a number...

Water Temperature (Hot - °F)

Enter a number...

Water Temperature (Cold - °F)

Enter a number...

Hot Water Temperature Setpoint Verified?

- Yes
- No
- N/A

Pressure Reducing Valve (PRV) Functioning Correctly?

- Yes
- No
- N/A

Observations/Comments (e.g., unusual noises, leaks)

Write something...

Date of Test

Enter date...

Time of Test

Plumbing Systems - Sanitary & Storm Drainage

Verification of proper drainage and venting systems.

Storm Drain Pipe Slope (minimum)

Enter a number...

Drainage Pipe Diameter (verify against design)

Enter a number...

Cleanout Accessibility

- Accessible
- Obstructed
- N/A

Venting Type (verify design)

- Wet Vent
- Dry Vent
- Individual Vent
- Grouped Vent

Observations Regarding Slope/Grade

Write something...

Leak Test Performed?

- Yes
- No
- N/A

Water Test Pressure (psi)

Enter a number...

Date of Leak Test

Enter date...

Plumbing Systems - Fire Suppression

Testing of sprinkler systems and fire pumps.

Sprinkler System Static Water Pressure (PSI)

Enter a number...

Sprinkler System Flow Test (GPM)

Enter a number...

Sprinkler Head Coverage (Adequate?)

- Yes
- No
- Not Applicable

Fire Pump Operation (Manual & Automatic)

- Pass
- Fail
- N/A

Last Fire Suppression System Inspection Date

Enter date...

Describe any observed deficiencies during fire suppression system testing

Write something...

Backflow Preventer Testing Passed?

- Yes
- No
- N/A

Upload Fire Suppression System Test Report

 Upload File

Fire Pump Discharge Pressure (PSI)

Enter a number...

Electrical Systems - Power Distribution

Verification of electrical panels, transformers, and distribution circuits.

Main Incoming Voltage (V)

Enter a number...

Main Incoming Current (A)

Enter a number...

Panel Voltage (V)

Enter a number...

Panel Current Capacity (A)

Enter a number...

Panel Grounding Method

- Solid Ground
- Resistance Ground
- Impedance Ground

Observations during visual inspection of panels (e.g., labeling, cleanliness)

Write something...

Phase Rotation Verification Result

- Correct
- Incorrect
- Not Applicable

Date of Last Panel Inspection

Enter date...

Which Overcurrent Protection Devices Tested?

- Circuit Breakers
- Fuses
- Electronic Fuses

Electrical Systems - Lighting

Testing of lighting fixtures, controls, and emergency lighting systems.

Luminaire Level Check: Average Footcandle Reading (Lux)

Enter a number...

Luminaire Level Check: Minimum Footcandle Reading (Lux)

Enter a number...

Emergency Lighting Activation Test: Successful?

- Yes
- No
- Not Applicable

Photocell Operation: Correct Function?

- Yes
- No
- Not Applicable

Dimming System Functions Checked

- Full On
- 50% Dim
- 25% Dim
- Off
- Scene 1
- Scene 10

Lighting Control System Notes (e.g., programming issues)

Write something...


Exterior Lighting Operation (Daylight)

- Operating as Designed
- Not Operating
- Needs Adjustment

Date of Lighting Survey Performed

Enter date...

Lighting Survey Photos/Reports

 Upload File

Electrical Systems - Low Voltage Systems

Functional testing of security, access control, fire alarm, and communication systems.

Fire Alarm System - Smoke Detector Functionality

- Operational
- Needs Adjustment
- Defective

Access Control System - Card Reader Functionality (Zone 1)

- Operational
- Needs Adjustment
- Defective

Security Camera - Frame Rate (FPS)

Enter a number...

Description of any observed anomalies in the CCTV system

Write something...

Communication System - Verified Functionality (Select all that apply)

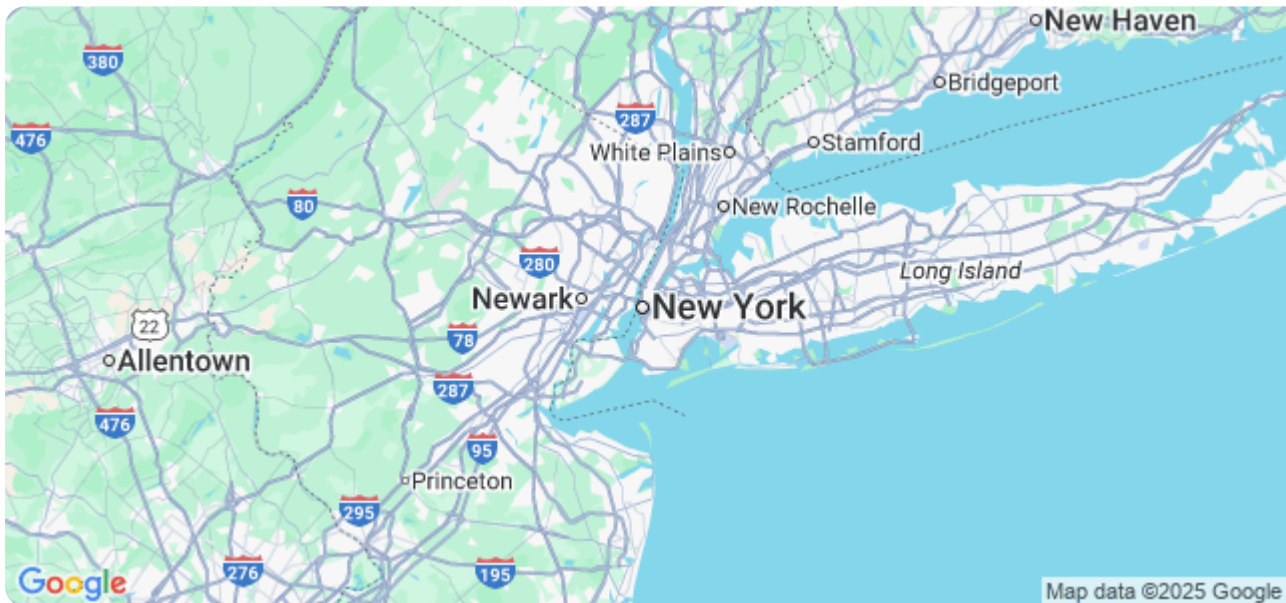
- Intercom
- PA System
- Data Network
- Telephone System

Last Scheduled Maintenance for Fire Alarm Panel

Enter date...

Location of Primary Access Control Panel

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Building Automation System (BAS) Integration

Testing of BAS integration with all MEP systems and verification of control sequences.

BAS Server Communication Latency (ms)

Enter a number...

BAS Integration with HVAC System - Status

- Successful
- Partial
- Failed

BAS Integration with Plumbing System - Status

- Successful
- Partial
- Failed

BAS Integration with Electrical System - Status

- Successful
- Partial
- Failed

BAS Points Verified (Select all that apply)

- Temperature Sensors
- Humidity Sensors
- Flow Meters
- Pump Status
- Valve Positions
- Equipment Status

Last BAS Software Version Update

Enter date...

Description of any BAS Integration Issues Encountered

Write something...

BAS Configuration File (Optional)

 Upload File

Commissioning & Performance Verification

Confirmation that systems meet design intent and performance specifications.

Chilled Water Supply Temperature (Actual)

Enter a number...

Chilled Water Return Temperature (Actual)

Enter a number...

Supply Air Volume (CFM) - AHU-1

Enter a number...

Return Air Static Pressure (inches WC)

Enter a number...

Lighting Control System Operation (Dimming, Scheduling)

- Nominal
- Above Nominal
- Below Nominal
- Non-Functional

Domestic Hot Water Temperature Setpoint Achieved?

- Yes
- No

Comments on Performance Verification

Write something...

Date of Performance Testing

Enter date...

Time of Performance Testing Start

Safety & Emergency Systems

Testing of emergency power systems, smoke detectors, and other safety devices.

Emergency Generator Fuel Level (Gallons)

Enter a number...

Emergency Lighting Status

- Operational
- Malfunctioning
- Not Tested

Last Fire Drill Date

Enter date...

Emergency Generator Start Time (Simulated)

Smoke Detector Testing Status

- Passed
- Failed
- Not Tested

Observations during Emergency Generator Test

Write something...

Fire Suppression System Valve Status

- Open
- Closed
- Not Tested

Location of Emergency Power Switchgear

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