

System Functional Testing Checklist (MEP Systems)

 Show only Checklist

Display Style
Default 

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)

Enter a number...

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

Enter time...

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)

Boiler Steam Pressure (PSI)

Furnace Hot Surface Temperature (°F)

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

Enter time...

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**Time of Test**

Plumbing Systems - Sanitary & Storm Drainage

Verification of proper drainage and venting systems.

Storm Drain Pipe Slope (minimum)**Drainage Pipe Diameter (verify against design)**

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)

Sprinkler System Flow Test (GPM)

Sprinkler Head Coverage (Adequate?)

- ☐ Yes
- ☐ No
- ☐ Not Applicable

Fire Pump Operation (Manual & Automatic)

- ☐ Pass
- ☐ Fail
- ☐ N/A

Last Fire Suppression System Inspection Date

Describe any observed deficiencies during fire suppression system testing

Backflow Preventer Testing Passed?

☐ Yes☐ No☐ N/A

Upload Fire Suppression System Test Report

Fire Pump Discharge Pressure (PSI)

Electrical Systems - Power Distribution

Verification of electrical panels, transformers, and distribution circuits.

Main Incoming Voltage (V)

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)

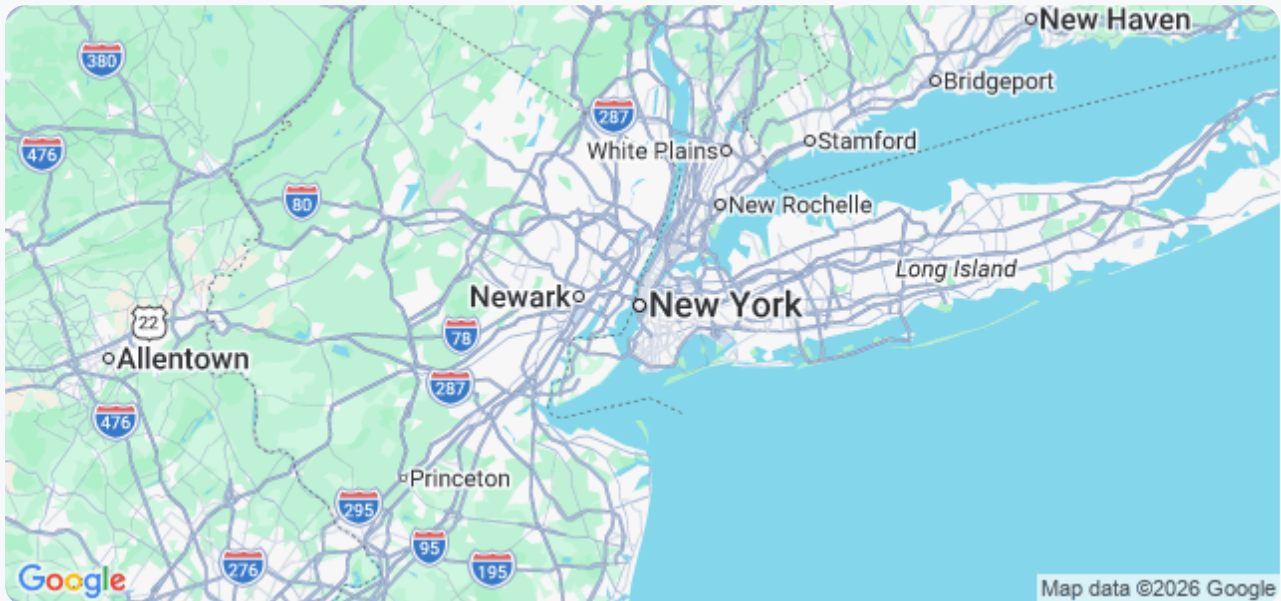
- ☐ Intercom
- ☐ PA System
- ☐ Data Network
- ☐ Telephone System

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

Description of any BAS Integration Issues Encountered

BAS Configuration File (Optional)

 Upload File

Commissioning & Performance Verification

Confirmation that systems meet design intent and performance specifications.

Chilled Water Supply Temperature (Actual)

Chilled Water Return Temperature (Actual)

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

Enter time...

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)

Enter time...

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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