| OpsAuditHub<br>opsaudithub.com | DOC ID: **SAF-0203** | REVISION: **Rev 2.4 (2026)** |
|---|---|---|
| | STANDARD: **ASHRAE TC 9.9 / NFPA 75 Standard for the Fire Protection of Information Technology Equipment** | AUDIT FREQUENCY: **Monthly Audit** |

# Server Room Environmental Checklist Inspection Checklist

**Operational Scope:** This inspection checklist mandates routine environmental assessments of critical IT and server room facilities to prevent equipment downtime from thermal anomalies and moisture. It mitigates fire, flood, and electrostatic hazards in strict compliance with NFPA 75 and ASHRAE guidelines.

| | |
|---|---|
| **MANDATORY PPE:** | ESD-Safe Wrist Strap, Anti-Static Lab Coat, Safety Glasses (ANSI Z87.1), Nitrile Gloves, Steel-Toe Boots (ASTM F2413) |
| **PREREQUISITES:** | Notify the IT Operations Center (ITOC) prior to conducting physical infrastructure walkthroughs. \| Ensure access badge and escort protocols are active for high-security data zones. \| Verify calibration status of portable environmental meters (thermo-hygrometer and anemometer). |

## HVAC, TEMPERATURE, AND HUMIDITY CONTROLS

| # | COMPONENT / ITEM | VERIFICATION CRITERIA & ACCEPTANCE STANDARD | SEVERITY | STATUS |
|---|---|---|---|---|
| 1 | **Ambient Room Temperature** | Temperature must remain strictly within ASHRAE recommended range of 64.4°F to 80.6°F (18°C to 27°C). No localized hot spots detected. | **Critical (Immediate Out of Service)** | [ ] PASS [ ] FAIL [ ] N/A |
| 2 | **Relative Humidity (RH) Levels** | Humidity must read between 40% and 60% RH to prevent both electrostatic discharge (ESD) and condensation risks. | **Warning** | [ ] PASS [ ] FAIL [ ] N/A |
| 3 | **CRAC / CRAH Unit Operation** | Computer Room Air Conditioner units operating efficiently with alternating duty cycles. No filter clogs or alarm lights present. | **Critical (Immediate Out of Service)** | [ ] PASS [ ] FAIL [ ] N/A |
| 4 | **Raised Floor Plenum Airflow** | Perforated floor tiles unobstructed by cabling or debris; static pressure differential maintained under raised floor. | **Warning** | [ ] PASS [ ] FAIL [ ] N/A |

## FIRE SUPPRESSION, POWER, AND LEAK DETECTION

| # | COMPONENT / ITEM | VERIFICATION CRITERIA & ACCEPTANCE STANDARD | SEVERITY | STATUS |
|---|---|---|---|---|
| 5 | **Clean Agent Fire Suppression System** | Control panels show normal system status (green indicator). Manual abort and release switches unobstructed and intact. | **Critical (Immediate Out of Service)** | [ ] PASS [ ] FAIL [ ] N/A |
| 6 | **Under-Floor Water Leak Detection** | Leak detection rope/sensors tested, dry, and active along perimeter walls and low points beneath raised flooring. | **Critical (Immediate Out of Service)** | [ ] PASS [ ] FAIL [ ] N/A |
| 7 | **Emergency Power Off (EPO) Guards** | EPO buttons equipped with clear protective physical covers and warning signage; no accidental trip hazards present. | **Critical (Immediate Out of Service)** | [ ] PASS [ ] FAIL [ ] N/A |
| 8 | **UPS Battery Enclosure Ventilation** | Dedicated battery room/cabinet exhaust fans operational. Hydrogen gas levels monitored with no acid leaks or swelling. | **Critical (Immediate Out of Service)** | [ ] PASS [ ] FAIL [ ] N/A |

## PHYSICAL SECURITY, HOUSEKEEPING, AND CABLE MANAGEMENT

| # | COMPONENT / ITEM | VERIFICATION CRITERIA & ACCEPTANCE STANDARD | SEVERITY | STATUS |
|---|---|---|---|---|
| 9 | **Server Room Access Control** | Keycard access logs functioning correctly; all entry doors self-closing and latched securely. No propped doors. | **Warning** | [ ] PASS [ ] FAIL [ ] N/A |
| 10 | **Overhead Cable Trays and Dust Control** | Cabling neatly managed with zero sag obstructing airflow. Ceiling tiles intact with no dust, debris, or water stains. | **Standard** | [ ] PASS [ ] FAIL [ ] N/A |
| 11 | **Combustible Material Storage** | Zero cardboard, paper, or packing materials stored inside the server room environment (NFPA 75 housekeeping rule). | **Warning** | [ ] PASS [ ] FAIL [ ] N/A |

| | | |
|---|---|---|
| **Certified Facility Compliance Inspector Signature:** _____ | **Date / Time:** _____ | **Badge / Cert #:** _____ |
| **Director of Facilities & Data Center Operations Sign-off:** _____ | **Review Date:** _____ | **Audit Status:** [ ] Approved [ ] Rectify |

**COMPLIANCE NOTICE:** This document must be archived for a minimum of 12 months in accordance with workplace safety recordkeeping guidelines.

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