



Data Center Cooling System Checklist


System Overview & Documentation

Verify documentation, system diagrams, and operational procedures are current and accessible.

Describe the overall cooling system architecture and design.

Write something...

Upload the current data center cooling system schematic/diagram.

 Upload File

Date of last cooling system design review.

Enter date...

Briefly summarize the latest significant changes or upgrades to the cooling system.

Write something...

Cooling System Type (e.g., Chilled Water, Direct Expansion, In-Row)

- ☐ Chilled Water
- ☐ Direct Expansion (DX)
- ☐ In-Row
- ☐ Other - Specify in Long Text

Cooling System Capacity (kW or Tons)

Enter a number...

Document Location (Physical and/or Network)

Write something...

Environmental Monitoring

Assess temperature, humidity, and airflow readings across the data center and cooling system components.

Ambient Temperature (Data Center)

Enter a number...

CRAC/CRAH Supply Air Temperature

Enter a number...

CRAC/CRAH Return Air Temperature

Enter a number...

Humidity (Data Center)

Enter a number...

Differential Pressure (Air Filters)

Enter a number...

Airflow Direction Verification (Visual Inspection)

- ☐ Correct
- ☐ Incorrect - Needs Adjustment
- ☐ Not Verified

Notes/Observations on Environmental Readings

Write something...

Date of Environmental Monitoring

Enter date...

Chillers (If Applicable)

Detailed inspection and verification of chiller operation, efficiency, and maintenance records.

Chiller 1 Water Inlet Temperature (°C)

Enter a number...

Chiller 1 Water Outlet Temperature (°C)

Enter a number...

Chiller 1 Chilled Water Flow Rate (GPM)

Enter a number...

Chiller 1 Energy Consumption (kWh)

Enter a number...

Chiller 1 Compressor Status

- ☐ Normal
- ☐ Warning
- ☐ Error


Last Oil Change Date

Enter date...

Any unusual noises or vibrations observed?

Write something...

Upload Vibration Analysis Report (if applicable)

 Upload File

Cooling Mode

- ☐ Cooling
- ☐ Heating
- ☐ Standby

Cooling Towers (If Applicable)

Focus on water quality, fan operation, and overall cooling tower efficiency.

Cooling Tower Water Inlet Temperature (°C)

Cooling Tower Water Outlet Temperature (°C)

Cooling Tower Fan Speed (RPM)

Cooling Tower Water Flow Rate (GPM)

Water Treatment Type

- ☐ Chemical Treatment
- ☐ Filtration
- ☐ Reverse Osmosis
- ☐ Other

Last Water Treatment Analysis Date

Enter date...


Observations regarding water quality (clarity, color, etc.)

Write something...

Fan Motor Condition

- ☐ Excellent
- ☐ Good
- ☐ Fair
- ☐ Poor

Attach recent cooling tower performance report (if available)

 Upload File

Computer Room Air Conditioners (CRAC/CRAH)

Inspect CRAC/CRAH unit operation, airflow, and filter status.

Supply Air Temperature (°C/°F)

Enter a number...

Return Air Temperature (°C/°F)

Enter a number...

Delta T (°C/°F)

Enter a number...

Chilled Water Pressure (PSI/Bar)

Enter a number...

Chilled Water Flow Rate (GPM/LPM)

Enter a number...

Air Filter Condition

- ☐ Excellent
- ☐ Good
- ☐ Fair
- ☐ Poor

Fan Motor Operation

- ☐ Normal
- ☐ Audible Noise
- ☐ Vibration
- ☐ Malfunctioning

Any unusual noises or observations?

Write something...

Last Filter Change Date

Enter date...

Pump Systems

Review pump performance, maintenance, and leak detection.

Pump 1 Flow Rate (GPM)

Enter a number...

Pump 2 Flow Rate (GPM)

Enter a number...

Pump 1 Discharge Pressure (PSI)

Enter a number...

Pump 1 Motor Current (Amps)

Enter a number...

Pump 1 Vibration Status

- ☐ Normal
- ☐ Slightly Elevated
- ☐ Elevated
- ☐ Abnormal

Pump 1 Bearing Noise

- ☐ None
- ☐ Minor
- ☐ Moderate
- ☐ Significant

Last Coupling Alignment Date

Enter date...

Notes/Observations regarding pump performance

Write something...

Air Distribution

Assess airflow pathways, obstructions, and containment effectiveness.

CRAC/CRAH Unit Airflow (CFM) - Verify against design specifications

Enter a number...

Underfloor Air Pressure (inches of water gauge) - Measure at critical locations

Enter a number...

Containment Integrity - Visual Inspection (Hot Aisle/Cold Aisle)

- ☐ Excellent
- ☐ Good
- ☐ Fair
- ☐ Poor

Identify any Airflow Obstructions

- ☐ Cables
- ☐ Equipment Placement
- ☐ Debris/Dust
- ☐ None

Detailed Observations/Notes on Air Distribution

Write something...

Floor Tile Condition (for raised floors)

- ☐ Intact & Properly Installed
- ☐ Damaged/Missing Tiles
- ☐ Improperly Installed

Specific Location of Airflow issues

 [Set My Current Location](#)



Power Supply to Cooling Systems

Check power integrity and redundancy to the cooling infrastructure.

UPS Voltage (V)

Enter a number...

UPS Load (kW)

Enter a number...

Generator Voltage (V)

Enter a number...

Generator Load (kW)

Enter a number...

UPS Bypass Status

- ☐ Normal Operation
- ☐ Bypass Active
- ☐ Bypass Failed

Last UPS Load Test Date

Enter date...

Last Generator Test Date

Enter date...

Notes on Power Supply Conditions

Write something...

Alarm Systems and Trending

Verify alarms are functioning correctly and trending data is analyzed for anomalies.

Current Temperature Threshold Alarm Setting (CRAC/CRAH)

Enter a number...

Current Humidity Threshold Alarm Setting

Enter a number...

Alarm Acknowledgement Procedure Followed?

☐ Yes

☐ No

Date of Last Alarm System Test/Calibration

Enter date...

Description of any recent alarm events and corrective actions taken

Write something...

Which alarm notifications are configured?

☐ Email

☐ SMS

☐ Pager

☐ SNMP Trap

Alarm system logs reviewed?

☐ Yes

☐ No

Maintenance Records & Schedules

Confirm adherence to preventative maintenance schedules and review maintenance logs.

Last Preventative Maintenance (PM) Date

Enter date...


PM Task Completion Percentage (if ongoing)

Enter a number...

Summary of Last PM Performed (including findings & actions)

Write something...

Upload PM Report/Documentation

 Upload File

Next Scheduled PM Task(s)

- ☐ Filter Replacement
- ☐ Belt Inspection/Replacement
- ☐ Water Treatment Analysis
- ☐ Condenser Tube Cleaning
- ☐ Leak Check
- ☐ Bearing Lubrication
- ☐ None

Date of Next Scheduled Maintenance

Enter date...

Notes/Comments on Maintenance Schedule Adherence

Write something...