



Public Transport Underground Station Ventilation & Airflow Inspection Checklist 2026

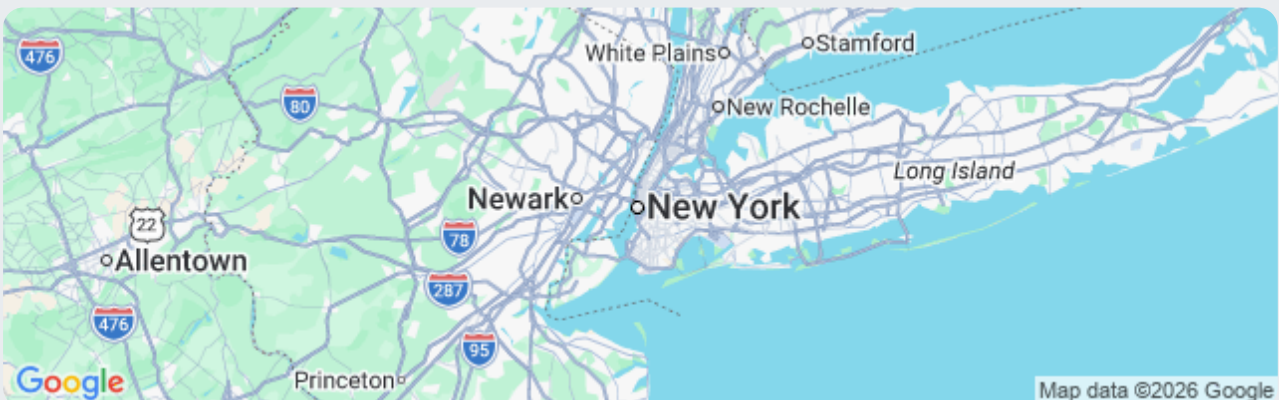
Station Intake & Exhaust Fan Inspection

Verification of mechanical fan operations, blade integrity, motor performance, and rotational speed consistency.

Inspection Date

Station/Fan Unit ID

 [Set My Current Location](#)



Fan Operational Status

- ☐ Fully Operational
- ☐ Degraded Performance
- ☐ Non-Operational/Fault

Measured Rotational Speed (RPM)

Enter a number...

Visual Inspection Checklist

- ☐ No visible blade damage
- ☐ No excessive vibration detected
- ☐ No unusual noise/grinding
- ☐ Motor casing is intact

Observation Notes & Defect Details

Write something...

Photo Evidence of Fan Blades/Motor

 Upload File

Inspector Signature

Ventilation Shaft & Ductwork Integrity

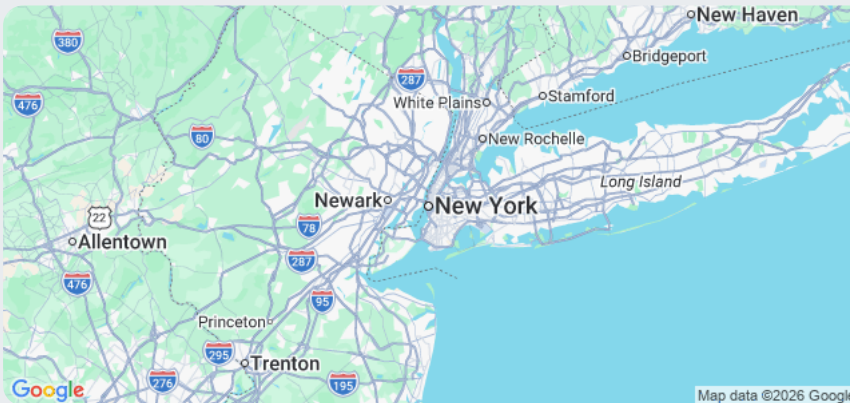
Assessment of duct cleanliness, structural stability, blockage detection, and seal/gasket condition in all air pathways.

Inspection Date

Enter date...

Shaft/Duct ID or Station Zone

 [Set My Current Location](#)



Ductwork Structural Integrity Status

- ☐ Intact - No visible damage
- ☐ Minor Corrosion/Wear Detected
- ☐ Significant Damage - Requires Repair
- ☐ Critical Failure - Immediate Action Required

Detected Issues

- ☐ Dust/Debris Accumulation
- ☐ Rust or Corrosion
- ☐ Seal/Gasket Failure
- ☐ Structural Cracks
- ☐ Obstructions/Blockages

Estimated Debris Accumulation (mm)

Enter a number...

Detailed Findings & Observations

Write something...

Photographic Evidence of Duct Condition

 Upload File

Inspector Authorization

Air Quality & Pollutant Monitoring

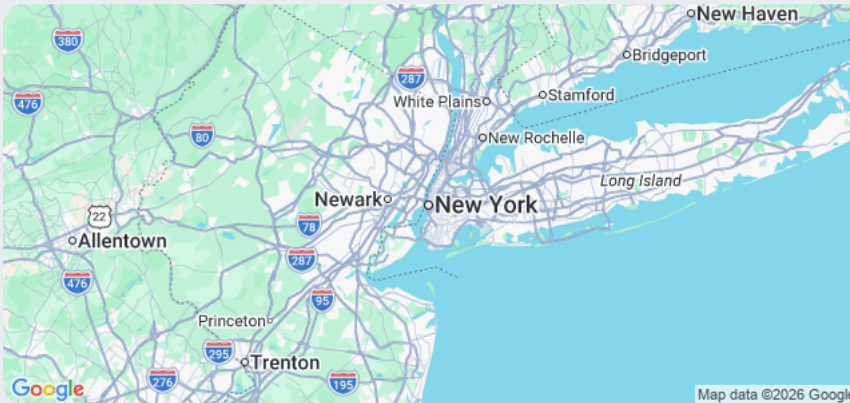
Measurement of CO₂, particulate matter (PM_{2.5}/PM₁₀), and nitrogen dioxide levels against 2026 safety standards.

Inspection Date

Enter date...

Station/Zone Identification

 [Set My Current Location](#)



CO2 Concentration Level (ppm)

Enter a number...

Particulate Matter (PM2.5) Concentration ($\mu\text{g}/\text{m}^3$)

Enter a number...

Air Quality Status

- ☐ Normal/Safe
- ☐ Warning/Threshold Exceeded
- ☐ Critical/Hazardous

Observation Notes & Anomalies

Write something...

Sensor Calibration Certificate

 Upload File

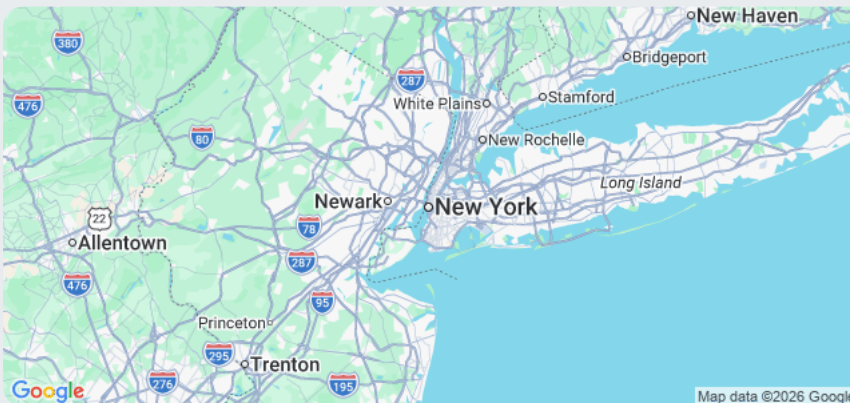
Inspector Authorization

Airflow Velocity & Pressure Regulation

Testing of air pressure differentials between platforms and tunnels, and measurement of airflow velocity at key station nodes.

Inspection Point/Zone ID

 Set My Current Location



Measured Air Velocity (m/s)

Enter a number...

Measured Pressure Differential (Pa)

Enter a number...

Airflow Consistency Status

- ☐ Stable
- ☐ Fluctuating
- ☐ Below Threshold
- ☐ Critical Failure

Anomalies or Turbulence Observations

Write something...

Date of Measurement

Enter date...

Inspector Verification

Emergency Ventilation & Smoke Control Systems

Testing of fail-safe modes, smoke extraction deployment, and integration with fire alarm automated response systems.

Smoke Extraction Fan Operational Status

- ☐ Fully Operational
- ☐ Partial Failure
- ☐ System Offline
- ☐ Maintenance Required

Emergency Mode Verification Checklist

- ☐ Smoke Dampers Fully Open
- ☐ Fire Door Integration Active
- ☐ Emergency Power Supply Engaged
- ☐ Alarm Triggered Ventilation Sequence

Response Time (Seconds)

Enter a number...

Observed Anomalies or Failures

Write something...

System Test Log/Video Evidence

 Upload File

Inspector Verification

Sensors & Automation Control Systems (SCADA)

Calibration check of airflow sensors, temperature probes, and the central automated control interface functionality.

Last Sensor Calibration Date

SCADA System Operational Status

- ☐ Fully Functional
- ☐ Partial Functionality (Degraded)
- ☐ Critical Failure
- ☐ Maintenance Mode

Current Airflow Sensor Deviation Percentage

Automated Alarms Verified

- ☐ Temperature Alert
- ☐ Smoke Detection Alert
- ☐ Airflow Obstruction Alert
- ☐ Power Loss Alert

Sensor Anomalies or Error Logs

Write something...

Calibration Certificate Upload

 Upload File

System Technician Verification

Structural Enclosure & Leakage Assessment

Inspection of station seals, door gaps, and structural penetrations to prevent uncontrolled air leakage or infiltration.

Wall & Ceiling Seal Integrity Status

- ☐ Intact
- ☐ Degraded/Cracked
- ☐ Significant Leakage Detected
- ☐ Requires Immediate Repair

Observed Air Leakage Rate (m³/h)

Enter a number...

Identified Leakage Points

- ☐ Door Frame Gaps
- ☐ Ventilation Grille Perimeters
- ☐ Structural Joint Crevices
- ☐ Cable Penetration Points
- ☐ Ceiling Panel Seams

Detailed Findings & Leakage Description

Write something...

Photographic Evidence of Structural Defects

 Upload File

Inspector Verification

Electrical & Power Supply Redundancy

Audit of backup power connectivity, UPS systems, and emergency generator readiness for ventilation units.

Last Emergency Generator Test Date

Backup Power Source Status

- ☐ Operational
- ☐ Degraded Performance
- ☐ Non-Operational
- ☐ Maintenance Required

UPS Battery Voltage Reading

Inspected Components

- ☐ Uninterruptible Power Supply (UPS)
- ☐ Emergency Backup Generator
- ☐ Automatic Transfer Switch (ATS)
- ☐ Station Auxiliary Power Panel

Observations of Electrical Anomalies

Write something...

Electrical Load Test Report

 Upload File

Lead Electrical Engineer Verification

Maintenance Log & Compliance Documentation

Review of historical maintenance records, recent repair logs, and adherence to 2026 regulatory safety protocols.

Last Inspection Date

Enter date...

Compliance Status

- ☐ Compliant
- ☐ Non-Compliant
- ☐ Requires Immediate Action

Summary of Findings & Observations

Write something...

Supporting Maintenance Certificates/Reports

 Upload File

Inspector Digital Signature

< Previous

> Next

✓ Finish

 Generate Sample Report