

Energy Substation Inspection Checklist Template

 Show only Checklist

Display Style
Default 

Visual Inspection - General

Initial assessment of overall substation condition and appearance.

Substation Identification Number

Write something...

Date of Inspection

Enter date...



Time of Inspection

Enter time...

Weather Conditions

Write something...

Overall Impression/Notes

Write something...

Evidence of Unauthorized Access?

- Yes
- No
- Uncertain

Ambient Temperature (°C)

Enter a number...

Vegetation Management

Assessment of vegetation growth around substation and potential hazards.

Vegetation Clearance Distance (Feet)

Enter a number...

Vegetation Type Observed

- Trees
- Shrubs
- Grass
- Vines
- Other

Description of Vegetation Growth

Write something...

Last Vegetation Control Date

Enter date...

Photographs of Vegetation

 Upload File

Vegetation Condition

- Acceptable
- Needs Attention
- Requires Immediate Action

Security Perimeter

Verification of fence integrity, gate operation, and security systems.

Fence Height (feet)

Gate Operation Status

- Operating Normally
- Malfunctioning
- Requires Maintenance

Perimeter Lighting Status

- All Lights Operational
- Some Lights Out
- All Lights Out

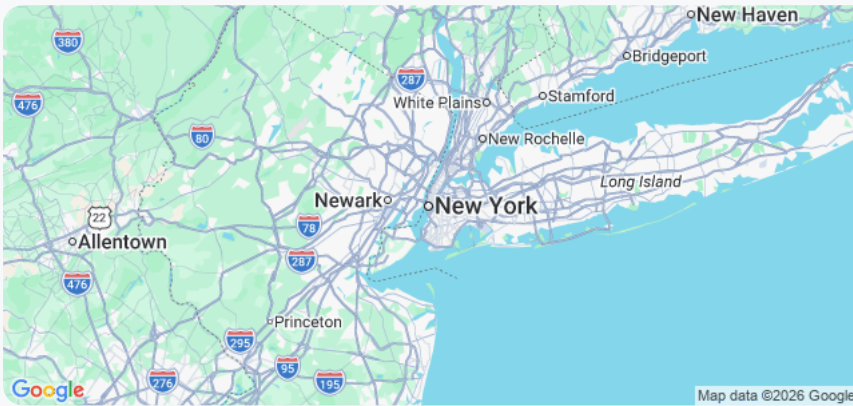
Last Perimeter Inspection Date

Comments/Observations Regarding Perimeter Security

Write something...

Location of Breached Point (if any)

 [Set My Current Location](#)



Photos of Perimeter (Optional)

 [Upload File](#)

Transformers

Inspection of transformer bushings, cooling systems, and oil levels.

Oil Level (inches)

Enter a number...

Oil Temperature (°C)

Enter a number...

Turns Ratio

Enter a number...

Bushing Condition

- Excellent
- Good
- Fair
- Poor

Remarks/Observations

Write something...

Last Oil Sample Date

Enter date...

Attach Oil Sample Analysis Report

 Upload File

Circuit Breakers

Check for proper operation, lubrication, and condition of breaker mechanisms.

Operating Time (Seconds)

Enter a number...

Reclosing Time (Seconds)

Enter a number...

Mechanism Type

- Spring-Operated
- SFI
- Hydraulic
- Other

Mechanism Lubrication Notes

Write something...

Last Lubrication Date

Enter date...

Abnormalities Observed

- Noise
- Vibration
- Overheating
- Slow Operation
- None

Inspector Signature

Disconnect Switches

Verification of switch operation and alignment.

Switch Position Verification

- Open
- Closed
- Intermediate

Switch Operating Time (seconds)

Enter a number...

Lubrication Status

- Lubricated
- Not Lubricated
- N/A

Visual Condition Notes

Write something...

Last Lubrication Date

Enter date...

Mechanism Condition

- Excellent
- Good
- Fair
- Poor

Busbars

Inspection for corrosion, overheating, and proper connections.

Busbar Temperature (°C)

Enter a number...

Busbar Material

Write something...

Busbar Condition

- Excellent
- Good
- Fair
- Poor

Description of any defects or abnormalities

Write something...

Busbar Oxidation Measurement (mm)

Enter a number...

Date of Last Cleaning

Attach Photo of Busbar Condition

 Upload File

Insulators

Assessment of insulator condition, cleanliness, and leakage current.

Insulator Surface Temperature (°C)

Insulator Material Type

- Porcelain
- Glass
- Composite

Insulator Condition (Visual)

- Excellent
- Good
- Fair
- Poor

Description of any Defects/Damage

Write something...

Leakage Current (mA)

Enter a number...

Presence of Contaminants

- None
- Dirt
- Algae
- Bird Droppings

Grounding System

Verification of ground connections and resistance levels.

Ground Resistance (Ohms)

Enter a number...

Transient Overvoltage Suppression (TOV) Resistance (Ohms)

Enter a number...

Grounding Electrode Condition

- Excellent
- Good
- Fair
- Poor

Observations/Notes on Grounding System

Write something...

Last Grounding Inspection Date

Enter date...

Inspector Signature

Control & Monitoring Systems

Check for proper function of SCADA, protective relays, and metering devices.

SCADA System Uptime (Hours)

Enter a number...

Relay Status - CB1

- OK
- Warning
- Error

Last Relay Calibration

Enter time...

Event Log Summary

Write something...

Communication Latency (ms)

Enter a number...

Battery Backup Status

- Online
- Standby
- Fault

Emergency Power Systems

Test and inspect generators, UPS, and battery backup systems.

Generator Voltage (V)

UPS Battery Voltage (V)

Battery State of Charge (%)

Last Generator Test Date

Time of Last Generator Start

Generator Load Test Result

- Pass
- Fail
- N/A

Notes/Comments

Write something...

Fire Protection Systems

Verification of fire extinguishers, suppression systems, and alarm functionality.

Last Fire Extinguisher Inspection Date

Enter date...

Number of Fire Extinguishers Present

Enter a number...

Fire Suppression System Status

- Operational
- Needs Maintenance
- Out of Service

Fire Alarm System Status

- Operational
- Needs Maintenance
- Out of Service

Last Fire Drill Time

Enter time...

Notes/Observations Regarding Fire Protection Systems

Write something...

Environmental Compliance

Assessment of oil containment, spill prevention, and waste disposal practices.

Oil Level in Containment Dikes (Feet)

Enter a number...

Last Spill Prevention Plan Review Date

Enter date...


Waste Oil Storage Status

- Compliant
- Minor Issue
- Major Issue

Environmental Permits Current?

- Air Permit
- Water Discharge Permit
- Hazardous Waste Permit

Recent Environmental Audit Report

 Upload File

Description of any Environmental Concerns

Write something...