===================================================================== ELECTRICAL CABLE EQUIPMENT INSPECTION REPORT =====================================================================

Report Title : Routine Inspection – Electrical Cable Equipment

Date of Inspection : 22 May 2025

Time : 09:00 – 11:30

Location : West Wing Substation, Building 4B, Berlin Campus

Inspector(s) : Miles Delwig, Senior Electrical Technician

Clara Neumann, Safety Compliance Officer

1. PURPOSE OF INSPECTION

To perform a scheduled preventive maintenance inspection on primary and secondary electrical cable systems. The inspection focused on identifying signs of wear, damage, overheating, improper labeling, and compliance with safety standards.

1. EQUIPMENT INSPECTED

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| --- | --- | --- | --- |
| **Equipment ID** | **Description** | **Location** | **Status** |
| EC-001 | 3-phase armored power cable (415V) | Main Distribution Panel A | Operational |
| EC-002 | Control signal cable (low voltage) | HVAC Control Box 2 | Minor wear |
| EC-003 | Grounding cable bundle | Transformer Ground Bay | Intact |
| EC-004 | Fiber-optic communication cable | Server Rack 12 | Requires label update |
| EC-005 | Busbar interconnection cable | Switchgear Room | No issues |

1. FINDINGS

* **EC-001:** No visible damage. Insulation intact. Proper tension maintained.
* **EC-002:** Slight abrasion on outer sheath due to cable tray edge; not critical but should be monitored.
* **EC-003:** Secure grounding with low resistance reading (0.15 ohms). Meets standards.
* **EC-004:** Labeling missing at both terminations. Functionality not affected but corrective labeling required.
* **EC-005:** Connections tight and thermal image shows no hotspots.

1. RECOMMENDATIONS / ACTION ITEMS
2. Apply protective grommet around tray edge for EC-002 to prevent further wear.
3. Relabel EC-004 according to IEC 60445 cable identification standards.
4. Schedule follow-up inspection in 6 months or sooner if load profiles increase.
5. Document all cable tray inspections monthly.
6. SIGNATURES

Inspector Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(Miles Delwig)

Inspector Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(Clara Neumann)

Maintenance Supervisor Approval:

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_