Cable Maintenance Guidelines

The maintenance of cable installations involves conducting inspections and regular checks on current loading, as well as performing maintenance tasks on cables, joints, and end terminations.

These actions are undertaken for several reasons: to prevent failures, to mitigate environmental damage, to avoid more costly maintenance in the future, to prolong the lifespan of cables and related components, to minimize risks, and to address any failed cables or accessory components that may arise.

Inspection

a. Periodic inspections should be carried out whenever cables or joints are accessible, such as in manholes, ducts, distribution pillars, etc. This ensures that timely repairs can be executed before any interruptions to service occur. The frequency of inspections should be determined based on the customer's experience, with heavily loaded lines requiring more frequent attention than less loaded ones.

b. Cables directly buried in the ground cannot be routinely inspected. However, they may become exposed during excavation work by other public utilities. Regular preventive maintenance involves inspecting all digging operations by other utilities or individuals in areas with electric cables.

c. In urban areas with congested underground utilities, the risk of cable damage is high. Cable inspectors should patrol these sections and thoroughly examine any exposed cables for signs of damage, such as deformations, dents, or harm to protective troughs or ducts.

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Checking of Current Loading

Cable life is significantly impacted by overloading. Hence, it's crucial to frequently assess the loads to ensure they remain within safe current-carrying limits.

Factors like cable grouping, ambient temperature, and soil thermal resistivity should not be overlooked.

For high-voltage feeder cables, daily readings of panel-mounted ammeters at generating stations, receiving stations, or substations are recommended.

For medium-voltage distribution cables at distribution pillars, loads can be conveniently checked using portable 'clip-on' ammeters at intervals not exceeding three months.

Maintenance of cables

Cable repairs typically involve replacing a defective section with new cable and installing two straight joints. Repair joints should be executed following the same process as joints on new cables.

In some cases, where insulation damage is minimal or moisture ingress is absent, installing a joint at the cable failure point may suffice.

When cables are exposed during work by other entities, temporary support measures are needed to prevent damage.

Attention to joint integrity is crucial to prevent conductor detachment. In cases of deep excavations near cables, permanent masonry supports should be built to prevent cable sinking due to backfill consolidation.

After work completion, original protection covers should be carefully restored, and the trench filled in with soft earth.

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Udey Pyrocables - Introduction

One of the biggest problems in the nascent days of the cable manufacturing sector was availability of quality specialized cables. Indian suppliers of such cables were scarce and could not supply the desired quality. Alternatively, importing these cables was possible but they were too expensive with high delivery periods. In order to solve this problem Udey Pyrocables was founded back in 1976. We pioneered the manufacturing of Thermocouple Extension Cables, Instrumentation Signal cable & Pneumatic Multi-tube bundle in India.

Even today we follow the same ideology and try to bridge the gap by **supplying excellent quality, affordable prices and reasonable delivery schedules of scarcely available products domestically**. Some of the newer products that we're supplying with this objective are VFD cables, Bus cables, Solar Cables, VDE standard control cable & Polyurethane Cables.

We **specialize in providing tailor made service** for each of our client's requirements and would love to work in association with you to develop better experience with regards to the cable design, cable quality & purchasing experience.

Udey Pyrocables manufactures a wide range of cables on the latest modernized machines to produce quality cables. We have an in-house testing laboratory which meets the requirements of International Standards and can conduct Physical, Routine, Acceptance, Type Tests, FRLS, Halogen free tests etc. all the Instruments are **NABL calibrated**. **Our Plant is located at Lonavala with a total area of 10 acres (100 KMs from Mumbai and 60 KMs from Pune in Maharashtra).**

Our company is **ISO 9001:2015 registered, ISI & CE certified** having approvals with eminent consultants & contractors. Safety and quality are of prime importance to us and in order to ensure the same testing is conducted at every stage of production so that every cable leaving our plant is perfect. We have worked with and delivered outstanding service and products to some of the biggest companies in India & beyond (exporting to 15 countries including the US, Japan, Singapore, Egypt, Middle East etc)

We have complete professional Management with an experienced team of engineers, we take care from our offer to the order placement where cable is designed as per your site requirements and conditions, job cards are made and QA Plan is submitted to you where eve stage our QC department ensures complete checks on every process to full stage of readiness, to shipment.

Cable Maintenance Guidelines

Product Range

Power & Control Cables	Standard: IS 7098 & IS 1554 Conductor: Al., Cu., ATC Size: 1.5 - 400 sq.mm. XLPE/ PVC insulated Armoured/ Unarmoured Extruded/ Taped Range - Upto 1.1 kV & 1.9/ 3.3 kV
Flexibles & Housing wiring	Standard: IS 694 Conductor: Cu., ATC Size: 0.5 - 400 sq.mm. PVC/ ZHLS/ FRLS
Instrumentation, Signal & RTD cable	Standard: BS 5308, BS EN 50288-7, IEC 189, EIL 6-52-46, EIL 6-52-51, IEC 60092-375, 376, BS EN 50288 PART-7, VDE 0815, VG 95218, NEK 606 Conductor: Cu., ATC Size: 0.5 - 2.5 sq.mm. Shielding: Al-Mylar + drain/ ATC braid Individual-Overall/ Overall Armoured/ Unarmoured PVC/ FR/ FRLS/ ZHLS/ Silicon Rubber/ PTFE/ Fiberglass/ Kapton
Thermocouple Cable	Standards: ANSI 96.1, IEC 584-3, BS 1843, IS 8784, DIN 43714, EIL 6-52-46 Conductor: J, K, E, T, R, S, B, N Size: 0.5 - 2.5 sq.mm. Shielding: Al-Mylar + drain/ ATC braid Individual-Overall/ Overall Armoured/ Unarmoured PVC/ FR/ FRLS/ ZHLS/ Silicon Rubber/ PTFE/ Fiberglass/ Kapton
Fire Resistant Cable (FS Cable)	Standards: BS 7846 Conductor: ATC, ABC Size: 1.5 - 400 sq.mm. Fire Barrier Tape: Mica Glass Tape Armoured/ Unarmoured XLPE/ Silicon - ZHLS
Communication Cables	Profibus Cable Profinet Cable Foundation Fieldbus Cable Modbus Cable DeviceNet Cable Can Bus Cable

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	Optical Fiber Cable Cat 5e, 6 & 7
Control Cables As per VDE	VDE 0207 LiYY LiYCY LiYCY PUR LiYCY-TP Li2YCY Pimf YY Cable CY Shielded Control cable SY Cable
VFD Cable	Conductor: Cu., ATC, Al. Size: 1.5 - 400 sq.mm. Ground Conductors - 1 or 3 Insulation: XLPE/ PVC Shielding: Al foil + ATC braid/ Copper Tape Individual-Overall/ Overall PVC/ FRLS/ ZHLS
Uninyvin Cable	Conductor: ATC HR PVC, Glass Fiber, Nylon Fiber, Nylon Lacquer
Heat resistant Cable	Based on the peak temperature and operating temperature these cables are designed. Material options - Silicon Rubber/ PTFE/ PFA/ FEP/ PEEK/ Kapton/ Fiber Glass etc
Solar Cables	Standards: 2pfg 1169 Conductor: ATC Size: 2.5 - 400 sq.mm.
Robotic Cables	Conductor: Class 5 or Class 6 ABC Insulation: PE, TPE, EPR Sheathing: PU Shielding: ATC braid (Optional)