

Job Hazard Analysis (JHA)

Task: Prepping Cable to Splice in the Telecom Industry

Risk Assessment Code (RAC) Legend

- **☒ Red (High Risk):** Unacceptable—stop work and implement controls before proceeding.
- **☑ Yellow (Moderate Risk):** Proceed with caution—implement and verify controls.
- **☐ Green (Low Risk):** Acceptable—maintain controls and continuous monitoring.

Overall Initial RAC for Prepping Cable to Splice Task: ☑ Moderate Risk

Job Steps, Hazards, and Controls

Step No.	Task Description	Potential Hazards	Controls / Safe Work Practices	Initial RAC
1	Pre-job planning & scope review	Missing permits; incomplete scope; inadequate prep of splice location	Conduct tailboard/JSA meeting; review splice drawings/work order; confirm 811 locates; identify vaults/handholes/splice cases; assign stop-work authority.	☑
2	Material staging (splice case, tools, cleaning supplies, PPE)	Struck-by falling tools; tripping hazards; chemical exposure	Stage materials in safe area; secure tools; maintain housekeeping; store cleaning chemicals in approved containers; review SDS sheets.	☑
3	Traffic control setup (if splice area in roadway or sidewalk)	Vehicle strikes; inadequate visibility	MUTCD-compliant plan; cones, barricades, and signs; certified flaggers; ANSI/ISEA 107 Class 2/3 garments; night lighting if required.	☑
4	Accessing vault/handhole	Struck-by falling cover; confined space hazards; slips/trips	Use cover lifting tools; barricade openings; treat vaults/handholes as permit-required confined space if applicable; test atmosphere; ventilate if necessary.	☑
5	Locating and securing cable	Pinch points; sharp edges; ergonomic strain	Use cable hooks to secure cable; wear cut-resistant gloves; maintain good lifting posture; barricade work zone.	☑
6	Cleaning cable sheath (solvents, wipes)	Chemical inhalation; skin/eye exposure; fire hazard	Use approved cable cleaning solutions; wear nitrile gloves and safety glasses; ventilate confined spaces; keep ignition sources away.	☑

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7	Removing sheath and armor	Cuts/lacerations from knives or ringers; dropped tools	Use insulated, purpose-built cable prep tools; cut away from body; wear cut-resistant gloves; tether tools when working aloft.	?
8	Scoring buffer tube/jacket	Fiber breaks; glass shards; hand/eye injury	Use proper scoring tools; safety glasses with side shields; never cut toward body; dispose of scrap fiber in sharps container.	?
9	Fiber ribbon/tube preparation	Fiber breakage; inhalation of fiber dust	Handle fiber with care; wear safety glasses; use microfiber cloths and approved cleaners; dispose of scrap in sealed containers.	?
10	Bonding and grounding metallic components	Electrical shock; improper bonding	Follow NESC/NEC grounding requirements; insulated gloves if near energized equipment; only qualified personnel perform bonding.	?
11	Moisture sealing of splice area	Chemical exposure (gel, sealants); improper sealing	Follow manufacturer instructions; wear chemical-resistant gloves; eye protection; ensure complete seal to prevent water ingress.	?
12	Securing prepared cable for splice	Pinched fingers; strain on cable; misalignment	Use approved cable clamps and straps; maintain bend radius; confirm no tension on fiber; secure with proper hardware.	?
13	Housekeeping and site cleanup	Slips/trips from debris; fiber shard exposure	Dispose of wipes, scrap jacket, and fibers in approved containers; sweep and clear area; inspect site before demobilization.	?
14	Documentation of cable prep	Missing records; regulatory non-compliance	Record cable ID, prep length, and location; photograph for QC; update as-builts and splice documentation.	?
15	Traffic control removal & demobilization	Vehicle strikes during removal	Remove devices in reverse order; maintain flaggers until last cone removed; perform final walkdown inspection.	?

PPE Requirements

- **Head/Face/Eye:** Hard hat (ANSI Z89.1) if working in construction zones; safety glasses with side shields (ANSI Z87.1); face shield when using chemicals or solvents.
- **Hearing:** Hearing protection when operating near vac trucks, generators, or noisy environments >85 dBA.
- **Hands:** Cut-resistant gloves for sheath cutting; nitrile/chemical-resistant gloves for solvents/cleaners; insulated gloves when bonding/grounding near energized equipment.
- **Feet:** Safety-toe boots with slip-resistant soles.
- **High-Visibility Apparel:** ANSI/ISEA 107 Type R, Class 2 (day) or Class 3 (night/high-speed).
- **Respiratory:** Dust mask/respirator if cutting into dusty cables or in poorly ventilated vaults.
- **Weather-Specific:** Rain gear, cold-weather PPE, sun protection as required.

Regulatory & Industry Practice Alignment (summary)

- **OSHA:** 29 CFR 1926 Subpart E (PPE), Subpart M (Fall Protection), Subpart P (Excavations for vault/handhole access), Subpart O (Motor Vehicles/Equipment), Subpart Z (Hazardous Substances—solvents, chemical exposure).
- **NIOSH:** Best practices for fiber handling, ergonomic strain prevention, confined space entry.
- **ANSI/ISEA:** ANSI/ISEA 107 (high-visibility apparel), ANSI Z87.1 (eye protection), ANSI Z359 (fall protection).
- **NESC:** Bonding and grounding of metallic members; clearance and separation standards for telecom cables.
- **MUTCD:** Work zone traffic control when splice locations are near roadways.