

Job Hazard Analysis (JHA)

Task: Loading Conduit 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 Loading Conduit 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	Incomplete scope; missing permits; lack of staging space	Conduct tailboard/JSA meeting; review delivery plan and site layout; designate loading/unloading zone; assign stop-work authority.	☑
2	Material staging (conduit bundles, reels, strapping materials)	Struck-by rolling conduit; tripping hazards; improper storage	Store conduit on stable, level ground; use wheel chocks for reels; stack in accordance with manufacturer guidelines; barricade storage area.	☑
3	Traffic control setup (if near roadway/sidewalk)	Vehicle strikes; inadequate signage; pedestrian exposure	Follow MUTCD standards; use cones, barricades, advance warning signs; certified flaggers; ANSI/ISEA 107 Class 2/3 garments; lighting for night work.	☑
4	Equipment inspection (forklift, boom truck, reel stands)	Equipment failure; hydraulic leaks; struck-by hazards	Inspect forklifts/booms daily; verify load capacity; check hydraulic systems; confirm operator certification.	☑
5	Lifting conduit bundles or reels	Crush/pinch injuries; reel roll-off; musculoskeletal strain	Use mechanical equipment when possible; never lift beyond weight limits; use rigging rated for load; spotter required.	☑
6	Positioning conduit on reel stands or trailers	Pinch points; dropped loads; instability	Use two-person team or spotter; maintain exclusion zone; use wheel chocks and leveling blocks; ensure even distribution.	☑

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7	Securing conduit (straps, chains, blocks)	Snap-back of straps; inadequate tie-downs; falling materials	Use rated straps/chains; inspect tie-downs before use; apply per DOT/FMCSA standards; confirm load secure before transport.	?
8	Loading conduit into plow chute, bore pit, or trench staging	Pinch points; conduit snap-back; ergonomic strain	Guide conduit using rollers; never place hands inside chute; maintain bend radius; use team lifts.	?
9	Cutting bands/straps on conduit bundles	Struck-by recoiling strap; sudden roll-off	Stand clear when cutting bands; wear safety glasses and gloves; chock conduit to prevent movement; cut straps one at a time.	?
10	Handling long lengths of conduit	Entanglement; strain injuries; dropped sections	Coordinate movements with team; use taglines to guide conduit; lift with legs not back; clear area of obstructions.	?
11	Weather/environmental considerations	Slippery surfaces; heat/cold stress; reduced visibility	Wear slip-resistant boots; use de-icing material; hydrate and rest in heat; wear thermal PPE in cold; provide lighting for low visibility.	?
12	Housekeeping during and after loading	Slips/trips from debris, straps, or cut bands	Remove debris immediately; coil and store straps; keep loading zone organized.	?
13	Site restoration and demobilization	Struck-by vehicles/equipment during breakdown	Remove traffic control in reverse order; maintain flaggers until last cone removed; final walkdown inspection.	?
14	Documentation & turnover	Missing records; regulatory non-compliance	Record conduit type, size, footage, and reel IDs; photograph secured load; update as-builts or delivery logs; submit to utility/owner.	?

PPE Requirements

- **Head/Face/Eye:** Hard hat (ANSI Z89.1); safety glasses with side shields (ANSI Z87.1).
- **Hearing:** Hearing protection when exposed to forklifts, booms, or generators >85 dBA.
- **Hands:** Cut-resistant gloves for conduit handling; insulated gloves if near energized facilities.
- **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).
- **Fall Protection:** Required if working on flatbeds or elevated trailers without guardrails (>6 ft); use harness and lanyard.
- **Respiratory:** Dust mask if conduit stored in dusty conditions or if cutting required.
- **Weather-Specific:** Rain gear, thermal PPE, or UV/sun protection as applicable.

Regulatory & Industry Practice Alignment (summary)

- **OSHA:** 29 CFR 1926 Subpart E (PPE), Subpart N (Cranes/Hoists/Rigging), Subpart O (Motor Vehicles/Mechanized Equipment), Subpart M (Fall Protection).
- **NIOSH:** Best practices for safe lifting, struck-by prevention, and ergonomic conduit handling.
- **ANSI/ISEA:** ANSI/ISEA 107 (high-visibility apparel), ANSI Z87.1 (eye protection), ANSI Z89.1 (head protection), ANSI Z359 (fall protection).
- **NESC:** Clearance and separation requirements when handling conduit near power infrastructure.
- **MUTCD:** Traffic control standards for utility loading/unloading near roadways.