



# Health, Safety & Environment (HSE) Manual

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REGULATORY COMPLIANCE

This manual complies with:

<b>OSHA 29 CFR 1926</b>	Construction Industry Safety Standards
<b>OSHA 29 CFR 1910</b>	General Industry Safety Standards
<b>Texas Utilities Code</b>	Chapter 251 - Underground Facility Damage Prevention
<b>Louisiana R.S. 40:1749.11-26</b>	Underground Utilities Damage Prevention Law
<b>MUTCD</b>	Manual on Uniform Traffic Control Devices
<b>NESC</b>	National Electrical Safety Code
<b>Metronet MSA</b>	Master Service Agreement Safety Requirements

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## Chapter 1

# Introduction & Safety Policy

## 1.1 Company Safety Commitment

LYT Communications, LLC is unconditionally committed to providing a safe and healthy work environment for all employees, subcontractors, and visitors. Safety is not merely a priority—it is a core value that guides every decision we make. We operate in Texas and Louisiana, and comply with all federal, state, and local safety regulations.

### Our Safety Principles:

- All injuries and occupational illnesses are preventable
- No job is so important that it cannot be done safely
- Working safely is a condition of employment
- Every employee has the right to a safe work environment
- Every employee has the responsibility to work safely

**Our Goal: ZERO injuries, ZERO incidents, every day.**

## 1.2 Purpose and Scope

This Health, Safety & Environment (HSE) Manual establishes the minimum safety standards for all LYT Communications projects in Texas and Louisiana. It ensures compliance with:

- OSHA 29 CFR 1926 (Construction Industry Standards)
- OSHA 29 CFR 1910 (General Industry Standards)
- Texas Utilities Code Chapter 251 (Underground Facility Damage Prevention)
- Louisiana R.S. 40:1749.11-26 (Underground Utilities Damage Prevention Law)
- Texas Department of Transportation work zone requirements
- Louisiana DOTD traffic control standards
- Metronet Master Service Agreement safety requirements

### This manual applies to:

- All LYT Communications employees (full-time, part-time, temporary)
- All subcontractors and their employees
- All visitors to LYT job sites
- All vendors while on LYT-controlled work areas

**■ ■ NOTE:** Where this manual conflicts with more stringent requirements (client specifications, local regulations, or site-specific rules), the more stringent requirement applies.

## 1.3 Management Responsibilities

### Executive Management:

- Establish safety as a core company value
- Provide adequate resources for safety programs
- Set measurable safety goals and track performance
- Hold all levels accountable for safety results

- Review and respond to serious incidents personally

**Project Managers and Supervisors:**

- Plan work with safety as the first consideration
- Ensure workers have proper training before starting tasks
- Conduct and document daily toolbox talks
- Perform regular job site safety inspections
- Correct unsafe conditions and behaviors immediately
- Investigate all incidents and implement corrective actions
- Lead by example—follow all safety rules

## 1.4 Employee Rights and Responsibilities

**Employee Rights:**

- A workplace free from recognized hazards
- Information about hazards and access to Safety Data Sheets (SDS)
- Training on how to perform their job safely
- Report safety concerns without fear of retaliation
- Refuse work believed to be immediately dangerous
- File a complaint with OSHA if conditions are unsafe

**Employee Responsibilities:**

- Follow all safety rules, policies, and procedures
- Use required PPE properly at all times
- Report all hazards, incidents, and near-misses immediately
- Report all injuries, no matter how minor
- Participate in safety training and meetings
- Never bypass or disable safety devices
- Look out for the safety of coworkers

## 1.5 Stop Work Authority



■ **STOP WORK AUTHORITY:** Every person on a LYT job site has the **RIGHT** and **OBLIGATION** to stop work when they observe an unsafe condition or behavior. This applies to **ALL** workers regardless of employer or position. **NO RETALIATION** will occur for exercising stop work authority in good faith.

### When to Stop Work:

- Imminent danger that could cause serious injury or death
- Someone not following established safety procedures
- Conditions have changed and safety plan no longer applies
- Required safety equipment is missing or damaged
- You don't understand how to do a task safely
- Weather conditions make work unsafe
- Signs of impairment in a coworker

### How to Stop Work:

1. Call out 'STOP WORK' clearly
2. Ensure everyone moves to a safe location
3. Explain the hazard or concern
4. Work with supervision to resolve the issue
5. Do not resume until hazard is corrected
6. Document the stop work event

## 1.6 Safety Violation Disciplinary Policy

Safety violations are serious and will result in disciplinary action:

Violation Type	First	Second	Third	Fourth
Minor (PPE, housekeeping)	Verbal warning + training	Written warning	Suspension (1-3 days)	Termination
Serious (Fall protection, excavation)	Written warning + training	Suspension (3-5 days)	Termination	—
Major/Willful (Intentional disregard)	Immediate Termination	—	—	—

**Examples of Major Violations:** Operating equipment while impaired, bypassing safety devices, falsifying records, refusing safety instructions, fighting.





## Chapter 2

# Personal Protective Equipment (PPE)

## 2.1 Basic Four Requirements

### REQUIRED PPE - "THE BASIC FOUR"

**Hard Hat****Safety Glasses****Hi-Vis Vest****Safety Boots**

The following PPE is required on ALL LYT Communications job sites at ALL times. This is referred to as the 'Basic Four':

PPE Item	Minimum Standard	When Required
Hard Hat	ANSI Z89.1 Type I, Class E	All active work areas
Safety Glasses	ANSI Z87.1 with side shields	All times on job site
High-Visibility Vest	ANSI 107 Class 2 minimum	All times on job site
Safety Footwear	ASTM F2413 (steel/composite toe)	All times on job site

**■ ■ PPE POLICY:** Failure to wear required PPE is a safety violation subject to disciplinary action. If you don't have proper PPE, notify your supervisor immediately—DO NOT enter the work area.

## 2.2 Head Protection

### Requirements:

- ANSI Z89.1 Type I (top impact) minimum; Type II (top and side) for aerial work
- Class E (electrical) rated for protection up to 20,000 volts
- Shell and suspension must be compatible (same manufacturer)
- Chin strap required for aerial work, high winds, or over water

### Replacement Criteria:

- Replace shell every 5 years from manufacture date (check inside)
- Replace suspension annually or if damaged
- Replace immediately after ANY impact
- Replace if cracks, dents, holes, or UV damage (chalky appearance)

## 2.3 Eye and Face Protection

Hazard	Required Protection
General work	ANSI Z87.1 safety glasses with side shields
Grinding, drilling, chipping	Safety glasses + face shield
Chemical splash	Chemical splash goggles + face shield
Welding/cutting	Welding helmet with proper shade lens
Laser (fiber optic)	Wavelength-specific laser safety glasses
Outdoor UV exposure	Safety glasses with UV protection

## 2.4 Hand Protection

Task/Hazard	Recommended Glove
General material handling	Leather or synthetic work gloves
Cut hazards (cable, sharp edges)	ANSI A4+ cut-resistant gloves
Chemical handling	Nitrile or chemical-specific gloves
Electrical work (>50V)	Voltage-rated rubber insulating gloves
Fiber splicing	Lint-free fiber handling gloves
Concrete/masonry	Alkali-resistant rubber or PVC gloves

**■ ■ WARNING:** Never wear gloves when operating rotating machinery (drill press, lathe) as they can get caught and pull your hand into the equipment.

## 2.5 Foot Protection

- ASTM F2413 safety toe (steel or composite) required
- Metatarsal guards when handling heavy materials
- Electrical hazard (EH) rated soles for electrical work
- Puncture-resistant soles for areas with nails/debris
- Slip-resistant soles for wet or oily surfaces
- Rubber boots for work in water or mud

## 2.6 High-Visibility Apparel

Class	Background Material	Reflective Material	When Required
Class 2	775 sq in minimum	201 sq in minimum	Standard daytime work
Class 3	1240 sq in minimum	310 sq in minimum	Night work, high-speed roads

**Note:** Texas and Louisiana DOT both require Class 3 for night work on public roadways.

## 2.7 Hearing Protection

Required when noise exceeds 85 dB (8-hour TWA). Common noise sources:

Equipment	Typical Noise Level	Protection Required
HDD drill rig	90-100 dB	Earplugs or muffs
Trencher/excavator	85-95 dB	Earplugs or muffs
Jackhammer	100-110 dB	Double protection (plugs + muffs)
Chain saw	105-115 dB	Double protection (plugs + muffs)

## 2.8 Fall Protection Equipment

Detailed in Chapter 5 (Aerial Construction). Key requirements:

- Full body harness required (body belts prohibited for fall arrest)
- All equipment must meet ANSI Z359.1 standards
- Inspect before each use; remove from service after fall arrest
- Anchor points must support 5,000 lbs per worker
- 100% tie-off required at 4 feet on poles, 6 feet general

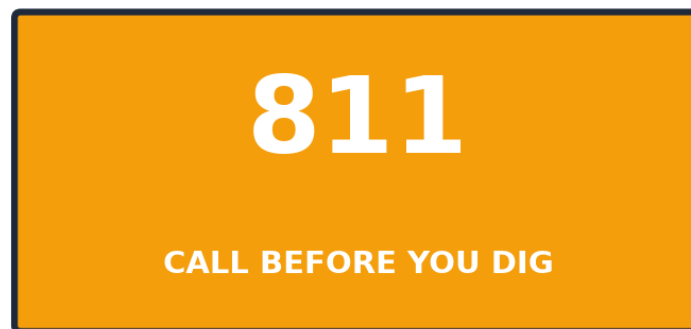


## Chapter 3

# Trenching & Excavation Safety

■ **CAVE-INS KILL:** Trenching is one of the most hazardous construction operations. One cubic yard of soil weighs ~3,000 lbs—enough to crush and suffocate in seconds. There is NO time to escape. STRICT COMPLIANCE IS MANDATORY.

## 3.1 Underground Utility Location — Call 811



Texas and Louisiana law **REQUIRES** notification to 811 before ANY excavation. Failure to call can result in utility damage, serious injury, death, and significant legal liability.

### Texas Requirements (Utilities Code Chapter 251):

- Call 811 at least **48 hours** (2 business days) before excavation
- Locate ticket valid for **14 calendar days**
- Tolerance zone: **18 inches** on each side of marked utility
- Must hand dig within tolerance zone
- Penalties up to **\$10,000** per violation

### Louisiana Requirements (R.S. 40:1749.11-26):

- Call 811 at least **48 hours** (2 working days) before excavation
- Locate ticket valid for **10 working days** (shorter than Texas!)
- Tolerance zone: **18 inches** on each side of marked utility
- Must use 'reasonable care' within tolerance zone
- Penalties up to **\$2,500** per violation; up to **\$25,000** for willful violations

■ ■ **LOUISIANA NOTE:** Locate tickets expire faster in Louisiana (10 working days vs 14 calendar days in Texas). Always verify ticket validity before excavation!

### Utility Marking Color Code (APWA Standard):

Color	Utility Type
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RED	Electric power lines, cables, conduit
YELLOW	Gas, oil, steam, petroleum
ORANGE	Communications, fiber, alarm, signal lines
BLUE	Potable water
GREEN	Sewer and drain lines
PURPLE	Reclaimed water, irrigation
PINK	Temporary survey markings
WHITE	Proposed excavation (marked by excavator)

### UTILITY MARKING COLOR CODE

	<b>RED</b>	Electric
	<b>YELLOW</b>	Gas/Oil
	<b>ORANGE</b>	Telecom/Fiber
	<b>BLUE</b>	Water
	<b>GREEN</b>	Sewer
	<b>PURPLE</b>	Reclaimed
	<b>PINK</b>	Survey
	<b>WHITE</b>	Proposed Dig

## 3.2 Competent Person Requirements

OSHA 29 CFR 1926 Subpart P requires a **Competent Person** for ALL excavation work. The Competent Person must be on site whenever workers are in or near an excavation.

### Competent Person Responsibilities:

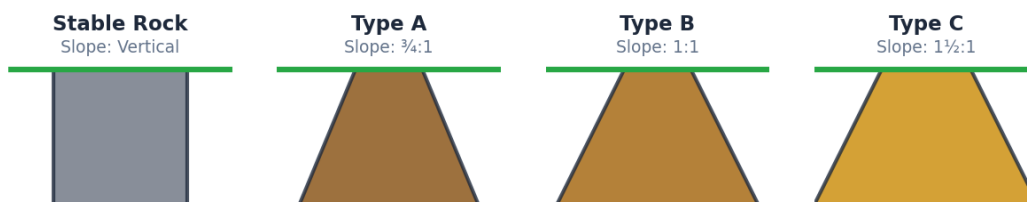
- Classify soil type using visual and manual tests
- Select appropriate protective system (sloping, shoring, shielding)
- Inspect excavation daily and after any condition change
- Monitor for hazardous atmospheres (excavations >4 ft)
- Ensure ladder within 25 feet of all workers
- Remove workers immediately if hazards develop
- Authority to stop work and implement corrective actions

## 3.3 Soil Classification

Type	Description	Compressive Strength	Max Slope
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Stable Rock	Natural solid mineral matter	N/A	Vertical (90°)
Type A	Clay, silty clay, sandy clay, hardpan (no cracks, undisturbed)	$\geq 1.5$ tsf	$\frac{3}{4}:1$ (53°)
Type B	Silt, sandy loam, medium clay, unstable Type A, previously disturbed	0.5-1.5 tsf	1:1 (45°)
Type C	Gravel, sand, loamy sand, soft clay, submerged soil, water seepage	$< 0.5$ tsf	$1\frac{1}{2}:1$ (34°)

### SOIL CLASSIFICATION & SLOPING REQUIREMENTS



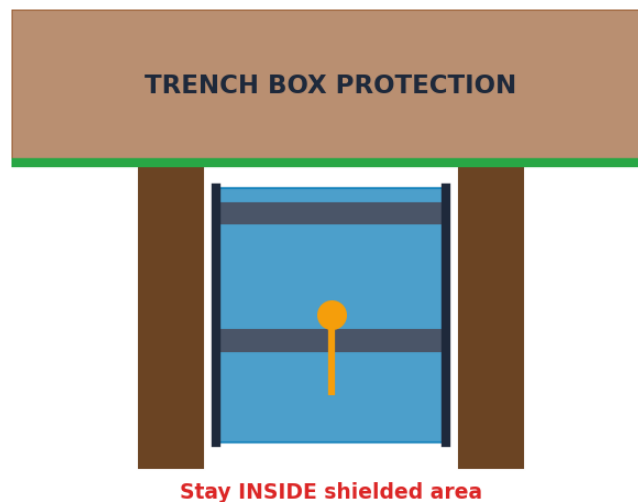
#### Manual Soil Tests:

- **Plasticity Test:** Roll soil into thread; if holds at  $\frac{1}{4}$ " diameter = cohesive
- **Thumb Penetration:** Type A = hard to penetrate; Type C = easy penetration
- **Pocket Penetrometer:** Direct compressive strength reading

### 3.4 Protective Systems

Excavations **5 feet or deeper** MUST have a protective system unless in stable rock. Excavations <4 feet must also be protected if Competent Person identifies cave-in potential.

Method	Description	Best For
Sloping	Cut back walls to safe angle	Open areas with room
Benching	Create horizontal steps	Type A or B soil only
Shoring	Hydraulic/timber supports	Limited space, deep excavations
Shielding	Trench box or shield	Most utility work



■ ■ **TRENCH BOX WARNING:** Trench boxes protect workers INSIDE but do not support the walls. Workers must stay inside the shielded area. Box must extend 18 inches above excavation floor if no sloping.

### 3.5 Access and Egress

- Ladders, ramps, or steps required in excavations 4 feet or deeper
- Ladders must extend 3 feet above the edge
- Ladders positioned so workers travel no more than 25 feet to reach one
- Structural ramps must be designed by competent person
- Never use mechanical equipment for access/egress

### 3.6 Daily Inspection Checklist

The Competent Person must verify before each shift:

- 811 locate ticket valid and all utilities marked
- Soil classified and appropriate protection in place
- Spoil pile at least 2 feet from edge
- Ladder within 25 feet of all workers
- Barricades and warning signs in place
- Heavy equipment positioned away from edge
- No water accumulation
- No cracks, spalling, or bulging in walls
- Workers briefed on hazards



## Chapter 4

## Horizontal Directional Drilling (HDD)

HDD is a trenchless method for installing underground utilities. While it minimizes surface disturbance, HDD presents unique hazards including utility strikes, high-pressure fluid injection, and rotating machinery.

### 4.1 Pre-Drill Planning

**Before ANY drill begins:**

- Valid 811 locate ticket obtained (TX: 48 hrs; LA: 48 hrs working days)
- All utilities marked; private utilities identified
- Bore path reviewed for utility crossings
- Potholing requirements determined
- Entry/exit pit locations established
- Soil conditions and groundwater assessed
- Drilling fluid containment plan in place
- Emergency shutdown procedures reviewed
- Communication system established (operator ↔ locator)

### 4.2 Utility Potholing Requirements

■ **CRITICAL:** Potholing (exposing utilities) is REQUIRED before drilling beneath ANY marked utility crossing. Do NOT rely solely on locate marks—they have limited accuracy.

**Potholing Procedures:**

- Pothole ALL utilities crossing the bore path
- Expose to verify horizontal AND vertical position
- Document actual depth and offset from bore path
- Maintain minimum clearances (see table below)
- Re-evaluate bore path if position differs from marks

Utility Type	Minimum Clearance	Notes
Gas (high pressure)	5 feet	Verify with pipeline owner
Gas (distribution)	2 feet	Verify with gas company
Electric (high voltage)	5 feet	Always pothole
Electric (distribution)	2 feet	More if possible
Water/Sewer	2 feet	Watch for joint separation
Fiber/Telecom	1 foot	Aware of direct-buried



### 4.3 Drilling Operations Safety

**Equipment Safety:**

- Only trained, authorized operators may run HDD equipment
- Complete daily pre-operation inspection
- Keep all guards and shields in place
- Never reach into rotating machinery
- Wear hearing protection (HDD rigs >85 dB)
- Establish 10-foot exclusion zone around rig
- Secure hydraulic hoses with whip checks

**Tracking the Drill Head:**

- Use electronic locating equipment continuously
- Verify depth every 20-50 feet minimum
- STOP immediately if locator loses signal
- STOP if unexpected resistance encountered
- Never drill 'blind'

### 4.4 Drilling Fluid Management

- Contain all fluid at entry/exit pits (berms, pools, tanks)
- NEVER allow fluid to enter storm drains or waterways
- Clean up spills immediately
- Dispose per TX/LA regulations (verify with waste hauler)
- Monitor for inadvertent returns along entire bore path

### 4.5 Inadvertent Returns (Frac-outs)

Frac-outs occur when drilling fluid escapes to the surface. Most common in sandy soils, near waterways, and with excessive drilling pressure.

**Prevention:**

- Assess soil conditions before drilling
- Use appropriate fluid viscosity
- Monitor drilling pressure
- Station observers along bore path
- Have containment materials ready

**Response:**

1. STOP drilling immediately
2. Contain release with berms/sandbags/vacuum
3. Prevent fluid from reaching waterways
4. Notify supervisor; assess if drilling can continue
5. Document with photos and incident report
6. Clean up and restore affected area

■ **ENVIRONMENTAL WARNING:** Frac-outs near waterways can result in significant fines in both Texas (TCEQ) and Louisiana (LDEQ). If fluid enters water, STOP all work and notify authorities immediately.



## Chapter 5

# Aerial Construction & Pole Work

■ **FALL HAZARDS:** Falls from elevation are a leading cause of death in telecommunications. 100% TIE-OFF is required at 4 feet on poles and 6 feet on other structures. NO EXCEPTIONS.

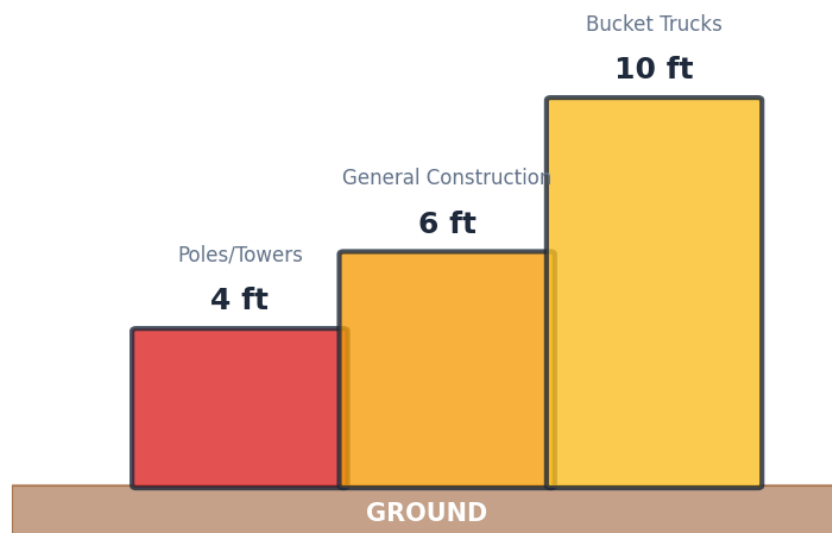
## 5.1 Climbing Qualifications

Before performing aerial work, personnel must:

- Complete approved pole climbing/aerial safety training
- Demonstrate proficiency in climbing and rescue
- Pass medical evaluation for climbing work
- Be trained on all fall protection equipment
- Understand minimum approach distances
- Be trained in emergency descent/rescue

## 5.2 Fall Protection Requirements

### FALL PROTECTION TRIGGER HEIGHTS



Trigger Height	Protection Required
4 feet (poles/towers)	100% tie-off while climbing or working
6 feet (general construction)	Guardrails, nets, or personal fall arrest
10 feet (bucket trucks)	Fall restraint or arrest attached to bucket anchor

Equipment Requirements:

- **Full Body Harness:** ANSI Z359.1, D-ring at center back
- **Positioning Lanyard:** For work positioning on poles
- **Fall Arrest Lanyard:** Shock-absorbing, max 6-foot length
- **Self-Retracting Lifeline:** For bucket trucks and greater distances
- **Pole Gaffs:** Must be sharp, properly fitted, inspected daily

**Anchor Points:** Must support 5,000 lbs per worker OR be designed with safety factor of 2.

### 5.3 Pole Inspection

EVERY pole must be inspected before climbing:

**Visual (from ground):**

- Check for rot, decay, damage at ground line
- Look for woodpecker holes, splits, cracks
- Check for fire damage, bullet holes
- Verify pole is plumb
- Inspect crossarms for damage

**Physical:**

- Sound pole with hammer—hollow = decay
- Push at 6 feet high—check for movement
- If ANY weakness, DO NOT CLIMB—use bucket truck

### 5.4 Bucket Truck Operations

**Daily Inspection:**

- Check fluid levels
- Inspect tires and wheels
- Test all controls (upper and lower)
- Inspect boom, bucket, hydraulic lines
- Check outriggers
- Test emergency descent

**Setup:**

- Park on firm, level ground
- Set brake, chock wheels on grades
- Fully extend outriggers on solid surface
- Stay 10 feet from power lines (20 feet if >50kV)

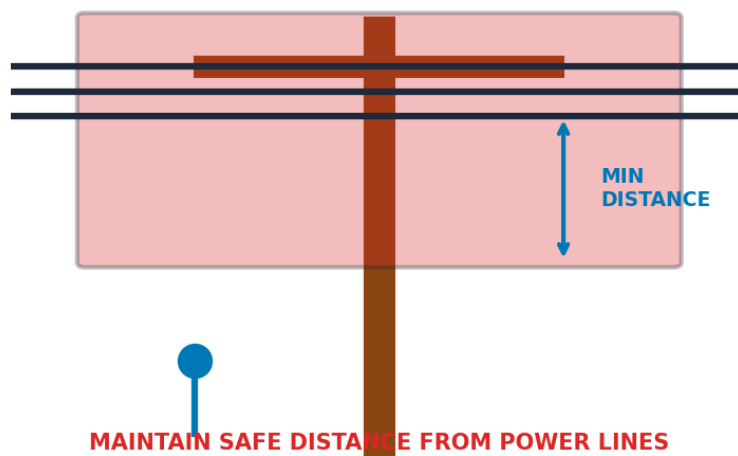
**Operation:**

- Wear harness attached to bucket anchor
- Never exceed rated capacity (typically 300-400 lbs)
- Keep both feet on floor—never stand on edge
- LOWER bucket before moving vehicle

### 5.5 Minimum Approach Distances (MAD)

Voltage	Distance	Notes
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0 - 50V	Avoid contact	Can still shock/burn
51V - 1kV	3 feet	Typical secondary
1.1kV - 15kV	4 feet	Primary distribution
15.1kV - 36kV	6 feet	Primary distribution
36.1kV - 50kV	8 feet	Subtransmission
50.1kV - 72.5kV	10 feet	Subtransmission
72.6kV - 121kV	12 feet	Transmission



■ **ASSUME ALL LINES ARE ENERGIZED** unless verified OFF by utility owner with proper lockout/tagout. Never touch or move power lines.



## Chapter 6

# Confined Space Entry

A confined space is an area that: (1) is large enough for a worker to enter, (2) has limited entry/exit, and (3) is not designed for continuous occupancy. Examples: manholes, vaults, large handholes.

## 6.1 Space Identification

**A PERMIT-REQUIRED confined space has:**

- Potential for hazardous atmosphere (toxic, flammable, oxygen-deficient)
- Material that could engulf an entrant
- Walls that could trap an entrant
- Any other serious safety hazard

## 6.2 Atmospheric Testing

**Test atmosphere BEFORE entry with calibrated monitor:**

Parameter	Safe Level	Action Required
Oxygen (O <sub>2</sub> )	19.5% - 23.5%	Outside range: Do NOT enter
LEL (flammables)	< 10%	≥10%: Do NOT enter
Carbon Monoxide (CO)	< 25 ppm	≥25 ppm: Ventilate or do NOT enter
Hydrogen Sulfide (H <sub>2</sub> S)	< 10 ppm	≥10 ppm: Ventilate or do NOT enter

## 6.3 Entry Procedures

1. Obtain confined space entry permit
2. Test atmosphere—must be safe
3. Provide continuous forced-air ventilation
4. Position attendant at entry—must remain outside
5. Establish communication between entrant and attendant
6. Have rescue equipment ready
7. Ensure rescue services available

## 6.4 Rescue Requirements

- Non-entry rescue preferred (retrieval system)
- Entry rescue requires trained rescue team
- Call 911 for complex rescues
- Never enter to rescue without proper equipment and backup

■ **NEVER ATTEMPT A RESCUE** without proper training and equipment. Many confined space deaths are would-be rescuers. Call 911.



## Chapter 7

# Traffic Control & Work Zone Safety

Work zone safety protects both workers and the public. All traffic control must comply with the MUTCD and state/local requirements.

## 7.1 Texas & Louisiana Permit Requirements

### Texas:

- TxDOT permit required for work in state highway ROW
- City/county permits for local roads
- Traffic Control Plan (TCP) required
- Certified flagger training required

### Louisiana:

- LaDOTD permit required for state highway ROW
- Work zone traffic control per LaDOTD standards
- LA specific flagger certification may be required
- Night work requires enhanced lighting

## 7.2 Traffic Control Plans

- Must be site-specific and MUTCD-compliant
- Include advance warning, transition, work area, termination
- Specify sign placement, spacing, and types
- Must be available on site

## 7.3 Flagger Operations

- Must complete approved flagger training
- Use STOP/SLOW paddle (18" min, retroreflective)
- Position in safe location visible to traffic
- Establish escape route
- Use clear, consistent signals
- Wear Class 2 (day) or Class 3 (night) hi-vis

## 7.4 Night Work Requirements

- Class 3 high-visibility apparel (vest + pants or coveralls)
- Retroreflective signs and barricades
- Additional work area lighting
- Flashing warning lights on vehicles
- Additional advance warning signs





## Chapter 8

# Electrical Safety

■ **ELECTRICAL CONTACT IS OFTEN FATAL.** Respect electricity at all times. ASSUME all wires are energized until verified otherwise through proper LOTO.

### 8.1 Electrical Hazard Awareness

- Overhead power lines on/near poles
- Underground power cables
- Energized equipment in buildings
- Power supplies and batteries
- Lightning during outdoor work
- Induced voltage on cables near power lines

### 8.2 Lockout/Tagout (LOTO) Procedures

1. Notify affected personnel
2. Identify all energy sources
3. Shut down equipment normally
4. Isolate energy sources
5. Apply lock and tag
6. Release/block stored energy
7. Verify isolation—test
8. Perform work
9. Remove tools, verify safe
10. Remove locks/tags, restore energy

### 8.3 Electrical Emergency Response

**If someone contacts energized line:**

- **DO NOT TOUCH THEM**—you will also be electrocuted
- Call 911 immediately
- If safe, de-energize circuit
- If in vehicle: Tell them to STAY IN VEHICLE
- If must exit (fire): JUMP clear—never step out
- Shuffle away with small steps (avoid step potential)



## Chapter 9

# Fiber Optic & Laser Safety

## 9.1 Fiber Handling Safety

Fiber strands are 125 microns—can easily penetrate skin or eyes.

- Wear safety glasses when cleaving/handling bare fiber
- NEVER look into end of fiber—laser light is invisible
- Dispose of scraps in proper container—not trash
- No eating/drinking in fiber work areas
- If fiber penetrates skin: use tape to remove, wash area
- Work in well-lit areas so scraps are visible

## 9.2 Laser Classifications

Class	Hazard	Precautions
Class 1	Safe under normal use	Standard fiber handling
Class 1M	Safe except with optics	No magnifying optics
Class 2	Low power visible	Blink reflex protects
Class 3A/3R	May be hazardous	Do not stare, use caution
Class 3B	Hazardous to eyes	Laser safety glasses required

## 9.3 OTDR Safety

- OTDR can be Class 3—check equipment classification
- Ensure fiber is dark (no connected equipment) before testing
- Use fiber power meter to check for light
- Post warning signs when using Class 3B lasers



## Chapter 10

# Emergency Response Procedures

## 10.1 Emergency Contact Information



Emergency	Contact	Number
Life-Threatening	911	911
LYT Safety Hotline	Matt Campbell	(281) 555-SAFE
LYT Main Office	Main Line	(281) 555-0100
Poison Control	National Hotline	1-800-222-1222
One-Call (TX & LA)	811	811
National Response Center	Spills/Releases	1-800-424-8802
TCEQ (TX Spills)	Environmental	1-800-832-8224
LDEQ (LA Spills)	Environmental	225-219-3640

## 10.2 Medical Emergency Response

1. Ensure scene is safe
2. Call 911
3. Do not move victim unless in danger
4. Provide first aid if trained
5. Send someone to meet responders
6. Stay with victim
7. Preserve scene for investigation
8. Notify LYT supervision

## 10.3 Utility Strike Response

### GAS LINE:



- EVACUATE immediately—300 feet upwind
- NO cell phones, radios, or starting vehicles
- Call 911 from safe distance
- Call gas company
- Prevent others from entering

**ELECTRIC LINE:**

- If in equipment: STAY IN EQUIPMENT
- Call 911 and utility
- Warn others to stay 35 feet away
- If must exit (fire): JUMP clear
- Shuffle away with small steps

**WATER/SEWER:**

- Exit excavation
- Call utility
- Prevent water entering storm drains
- Barricade area

## 10.4 Severe Weather

**Lightning:**

- 30/30 Rule: If thunder  $\leq$  30 seconds after lightning, seek shelter
- Stop outdoor work
- Move to building or vehicle
- Stay away from poles, trees, metal
- Wait 30 minutes after last thunder

**Tornado:**

- WATCH = conditions favorable; WARNING = sighted
- Seek shelter immediately on WARNING
- Interior room, lowest floor
- If no shelter: lie flat in ditch
- Protect head/neck



## Chapter 11

# Incident Reporting & Investigation

## 11.1 Reporting Requirements

**ALL incidents must be reported IMMEDIATELY:**

- All injuries, no matter how minor
- All near-misses
- All property damage
- All utility strikes
- All environmental releases
- All vehicle incidents
- All fires

■■ **FAILURE TO REPORT** is a serious safety violation. Even minor incidents provide valuable information to prevent future injuries.

## 11.2 Near-Miss Program

A near-miss is an event that did not result in injury but could have. Near-misses are 'free lessons'—they reveal hazards before someone gets hurt.

**Examples:**

- Tool falls from height but misses everyone
- Vehicle narrowly avoids hitting worker
- Trench wall cracks (caught before collapse)
- Employee stumbles but catches themselves

Report through LYT Portal or to supervisor. All reports are **non-punitive**.

## 11.3 Investigation Process

1. Secure scene; provide medical treatment
2. Document scene (photos, measurements)
3. Interview witnesses separately
4. Gather physical evidence
5. Review procedures, training, inspections
6. Identify root causes (5-Why analysis)
7. Develop corrective actions
8. Implement and verify effectiveness
9. Share lessons learned



## Chapter 12

# Drug & Alcohol Policy

## 12.1 Policy Statement

LYT Communications maintains a **DRUG-FREE WORKPLACE**. The use, possession, distribution, or sale of illegal drugs, unauthorized controlled substances, or alcohol on company time, property, or job sites is strictly prohibited and will result in immediate termination.

### Prohibited Substances:

- Illegal drugs (marijuana, cocaine, meth, heroin, etc.)
- Prescription drugs without valid prescription
- Prescription drugs impairing ability to work safely
- Alcohol
- Synthetic drugs, designer drugs

■■ **MARIJUANA:** Remains illegal under federal law regardless of state laws. Even if legal in your state, it is **NOT** permitted under LYT policy.

## 12.2 Testing Requirements

Test Type	When Required
Pre-Employment	Before starting work (all new hires)
Random	Unannounced selection from employee pool
Reasonable Suspicion	Supervisor observes signs of impairment
Post-Accident	After recordable injury or significant damage
Return-to-Duty	Before returning after violation
Follow-Up	Periodic after return (min 6 tests/12 months)

## 12.3 Consequences

- **Positive test:** Immediate termination
- **Refusal to test:** Treated as positive—termination
- **Tampering:** Termination + possible legal action
- **Possession on site:** Termination + law enforcement



## Chapter 13

## Environmental Conditions

### 13.1 Heat Illness Prevention

Texas and Louisiana summers routinely exceed 100°F. Know the signs:

#### HEAT ILLNESS PROGRESSION - KNOW THE SIGNS



Condition	Symptoms	Response
Heat Cramps	Muscle cramps, sweating	Rest in shade, water, stretch
Heat Exhaustion	Heavy sweating, weakness, nausea, dizziness	Cool area, remove clothing, water, seek medical if severe
Heat Stroke	High temp, confusion, hot/dry skin, unconscious	911 IMMEDIATELY Cool with water/ice

#### Prevention:

- Drink water every 15-20 minutes—don't wait until thirsty
- Take breaks in shade or AC
- Wear light, loose, breathable clothing
- Use cooling towels/vests
- Acclimatize new workers gradually (7-14 days)
- Buddy system—watch for each other

### 13.2 Cold Stress Prevention

- Dress in layers (moisture-wicking, insulating, wind-resistant)
- Keep head, hands, feet covered
- Take breaks in warm areas
- Keep dry clothes available
- Know signs of hypothermia (shivering, confusion) and frostbite (numbness, white skin)

### 13.3 Weather Monitoring

- Check forecast before and during outdoor work

- Monitor heat index and wind chill
- Have emergency shelter plan
- Know company severe weather procedures





## Chapter 14

## Tool & Equipment Safety

### 14.1 Hand Tool Safety

- Inspect before each use—don't use damaged tools
- Use right tool for the job
- Keep cutting tools sharp
- Carry in tool belt, not pockets
- Hand tools handle-first, never throw
- Store properly

### 14.2 Power Tool Safety

- Only use if trained and authorized
- Inspect tool and cord before use
- Use GFCI for all corded tools
- Never remove/bypass guards
- Disconnect before changing bits/blades
- Secure workpiece—never hold by hand
- Let tool reach full speed before contact
- Keep bystanders clear

### 14.3 Equipment Inspection

Inspect daily before use:

- Fluid levels (oil, hydraulic, coolant, fuel)
- Tires/tracks condition and pressure
- Lights, horn, backup alarm
- Mirrors and visibility
- Controls function properly
- Safety devices, guards, kill switches
- Hydraulic hoses and connections
- Structural components



## Chapter 15

# Housekeeping & Organization

## 15.1 Work Area Organization

Good housekeeping prevents trips, falls, and injuries:

- Keep walkways and access routes clear
- Store materials in designated areas
- Clean up spills immediately
- Dispose of waste promptly
- Route cords and hoses to prevent trips
- Stack materials safely—not too high
- Secure loose materials in wind

## 15.2 End-of-Day Procedures

- Secure work area (barricades, signs)
- Store tools and materials
- Lock vehicles and equipment
- Remove trash and debris
- Protect excavations
- No trip hazards in public areas
- Complete documentation



## Chapter 16

## Safety Acknowledgment & Agreement

This acknowledgment must be signed by ALL employees and subcontractors before performing any work for LYT Communications.

## ACKNOWLEDGMENT

By signing below, I acknowledge and agree:

- I have received and read the LYT Communications HSE Manual (v2.3)
- I understand my responsibility to follow all safety policies
- I will wear required PPE at all times on job sites
- I will report all hazards, incidents, and near-misses immediately
- I understand I have STOP WORK AUTHORITY
- I will participate in required safety training
- I will comply with the Drug-Free Workplace Policy
- I consent to drug/alcohol testing as described
- I consent to background check
- I will call 811 before any ground disturbance
- I understand violations may result in termination
- I will report any driver's license changes if driving
- I will not perform tasks I am not trained for

## CERTIFICATION & SIGNATURE

I certify that I have read, understand, and agree to comply with all policies in this HSE Manual. I understand failure to comply may result in disciplinary action or termination.

Print Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

ID #: ID #: ID #: ID #: ID #: ID #: ID #: ID #: I

Company (if sub): \_\_\_\_\_

Position/Title: \_\_\_\_\_

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## SUPERVISOR VERIFICATION

Supervisor Name: \_\_\_\_\_ Date: \_\_\_\_\_

Supervisor Signature: \_\_\_\_\_

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### FOR OFFICE USE ONLY

Received By:	_____	Date:	_____
Orientation:	<input type="checkbox"/> Complete	Training:	<input type="checkbox"/> Verified
Background:	<input type="checkbox"/> Pass <input type="checkbox"/> Pending	Drug Test:	<input type="checkbox"/> Pass <input type="checkbox"/> Pending
Filed:	_____	Notes:	_____