



# Electric Emergency Guide

Identifying and reporting damage  
to electric lines



# CAUTION

DO NOT TOUCH ANY DOWNED WIRES OR OBJECTS IN CONTACT WITH DOWNED WIRES! ASSUME THAT ALL WIRES ARE ENERGIZED. REMEMBER THAT WATER AND METALS ARE GOOD CONDUCTORS OF ELECTRICITY. AVOID PUDDLES, ANY METAL OBJECTS OR FENCES THAT MAY BE TOUCHING A DOWNED WIRE.

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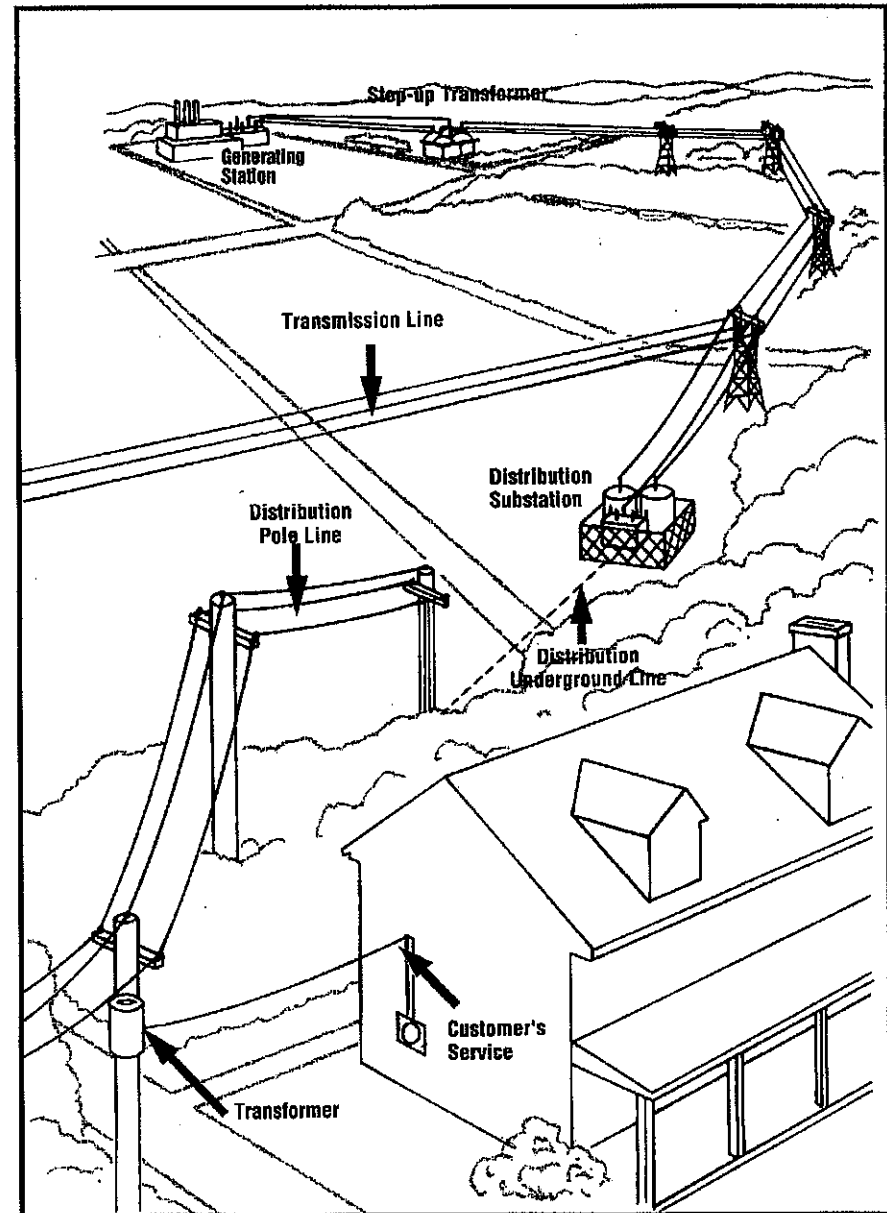
## Introduction

Long Island Power Authority (LIPA) has prepared this guide to help non-utility emergency response personnel identify and report damage during electric emergencies. The rapid reporting of such problems is a key factor in restoring service and protecting the public. System damage can occur at any time. These situations can pose significant danger to the public and emergency workers. Caution is required when responding to any system emergency.

If you are able to locate, identify and quickly report damage to any LIPA facility, we can respond faster and more efficiently to safeguard the area and make repairs. Fire, police and other municipal employees provide a valuable and necessary public protection service when they stand by scenes of electric emergencies until LIPA is able to respond.

Lastly, LIPA has worked with Fire Training Academies to assure all electric hazard emergency training is up-to-date and reflects current practices. It is highly recommended that your fire department attend this training from your local fire academy.

## Typical Electric Service



## Overhead Wires and Equipment

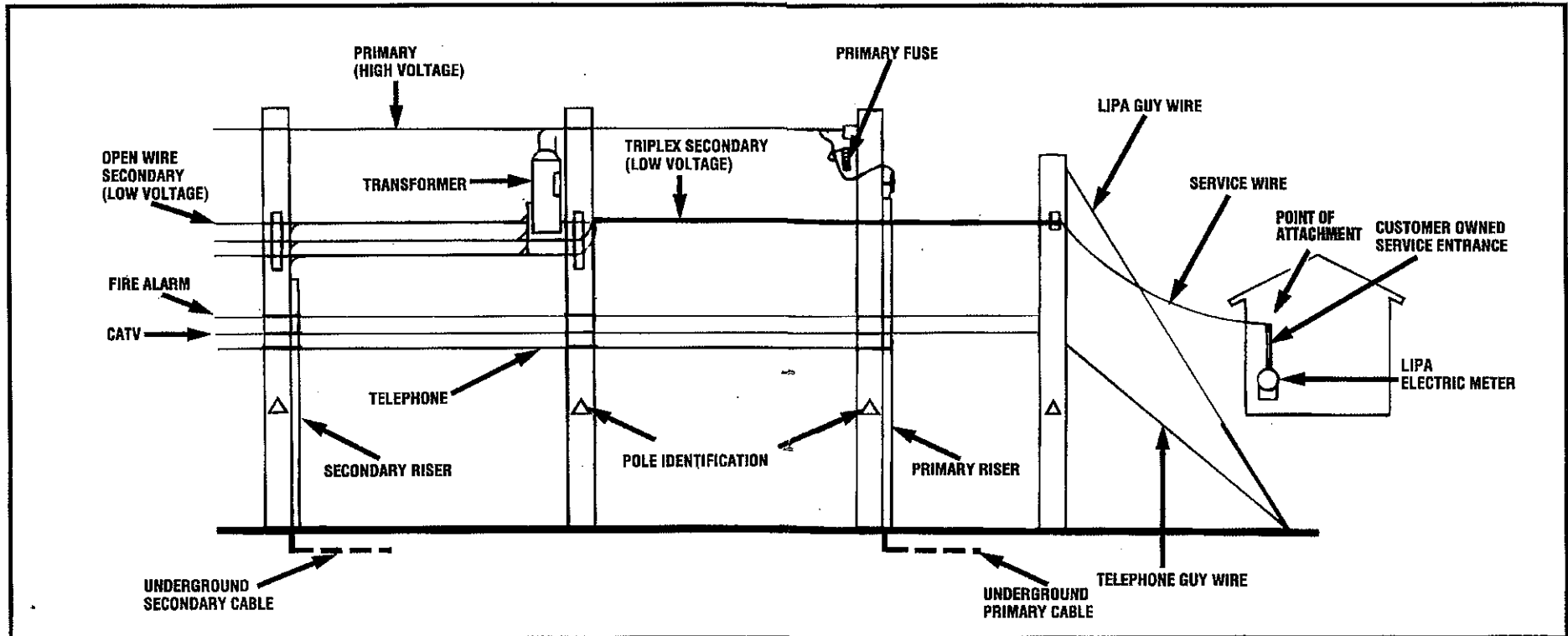
Utility poles on Long Island may carry electric, telephone system, cable TV and fire alarm wires, although you won't always find all of these uses on every pole. LIPA uses two voltage levels for electrical distribution, 4,000-volt (4kv) and 13,000-volt (13kv). The drawing below shows the placement of wires and other equipment on a distribution pole line system.

In general, overhead wires are installed in this order, from the top down:

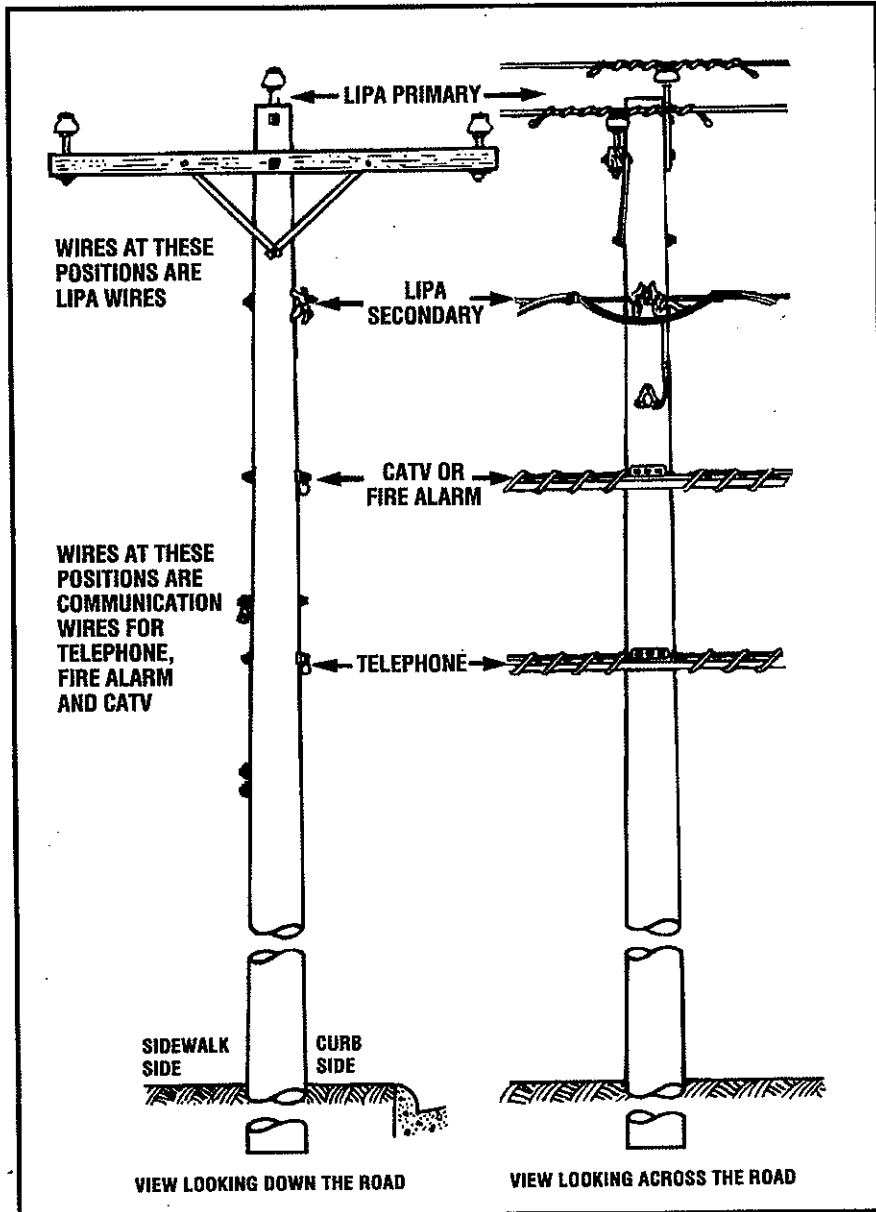
- Primary electric wires, at the top of the poles, operate at high voltages of approximately 4,000 or 13,000 volts.
- Secondary electric wires operate at lower voltages for local use (less than 600 volts, usually 120 volts).
- Fire alarm wires
- Cable TV wires (CATV)
- Telephone lines

There are several other kinds of wires to consider:

- Risers, enclosed in pipes, run up the sides of utility poles. They connect overhead and underground systems.
- Service wires run from a utility pole to a home or other building.
- Guy wires brace utility poles by anchoring them to the ground.

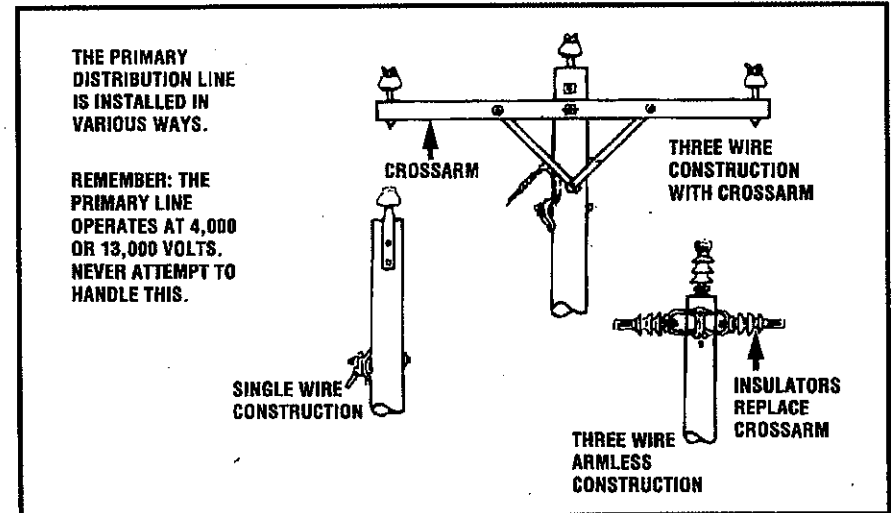


## Pole Assignment

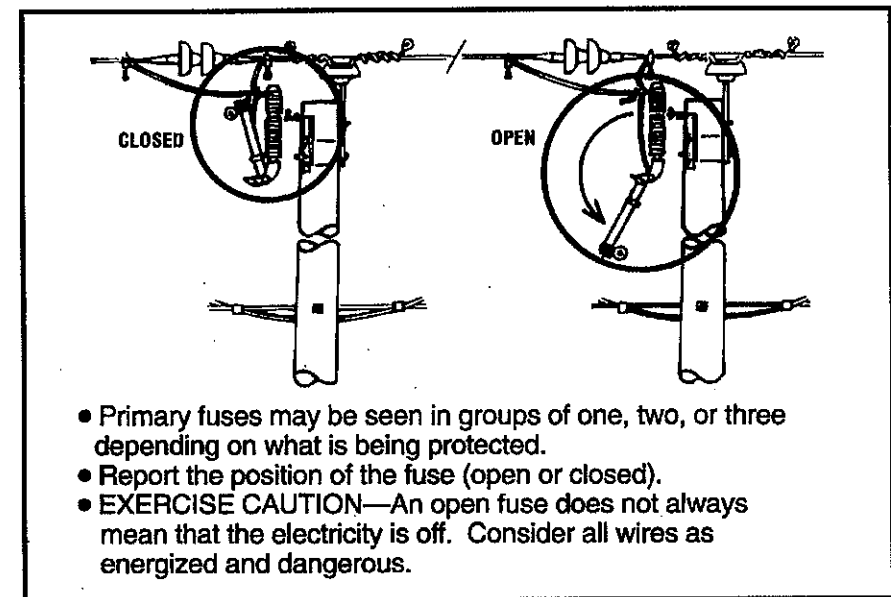


## Primary Construction/Fuses

### Primary Construction

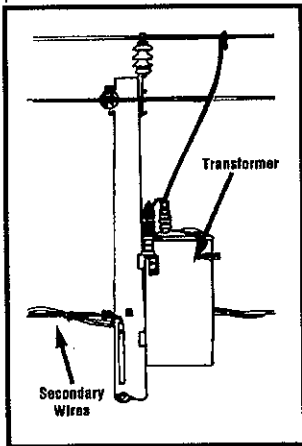


### Primary Fuse

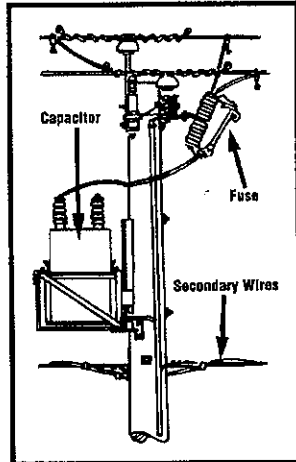


## Transformers and Capacitors

LOCATED BETWEEN PRIMARY AND SECONDARY WIRES.

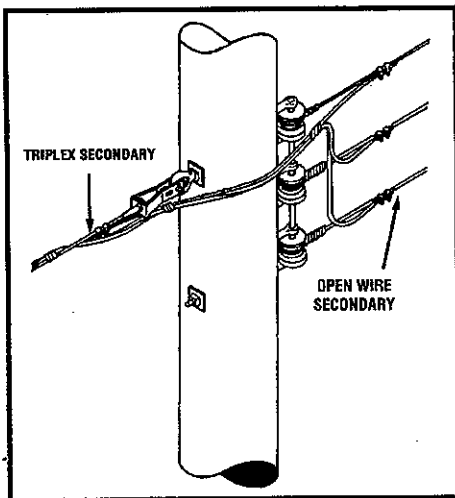


All LIPA pole transformers contain mineral oil and are rarely PCB-contaminated. However, only newer LIPA transformers are labeled "NO PCBs."



Capacitor banks on the LIPA Electric Supply System do not contain PCBs.

## Secondary Wires – Low Voltage



Two Types: 1. Open Wire Construction  
2. Triplex (Wrapped) Construction

Both Secondary (wires from pole to pole) and services (wires from pole to building) appear in one of these forms.

## PCB's

PCB's (Poly-Chlorinated-Biphenyls) are a family of some 209 chemical compounds. Because of their remarkable insulating capacity and their flame-retardant nature, they were used as coolants and lubricants in transformers, capacitors and other electrical equipment where these properties are desirable. There is no commercial production of PCB's in the United States at this time. The U.S. Environmental Protection Agency (EPA) stated that PCB's are potentially hazardous to humans.

LIPA must follow special procedures for handling and cleaning up oil spills where there are possibilities of PCB's present.

Emergency response personnel or civilians coming in contact with oil spills from LIPA equipment, whether known to contain PCB's or not, should wash the affected area thoroughly, with soap and water two times, and notify LIPA.

*This label can be found on new LIPA equipment containing mineral oil:*

# NO PCBs

THE OIL CONTAINED WITHIN THIS CAPACITOR, TRANSFORMER OR CONTAINER HAS BEEN TESTED AND PROVEN TO BE BELOW 50 PPM PCB. DO NOT RECYCLE OR REUSE WITH UNTESTED TRANSFORMER OIL.

*NOTE: In general, LIPA pole transformers are rarely PCB - contaminated, but the older type transformers will not have this label.*

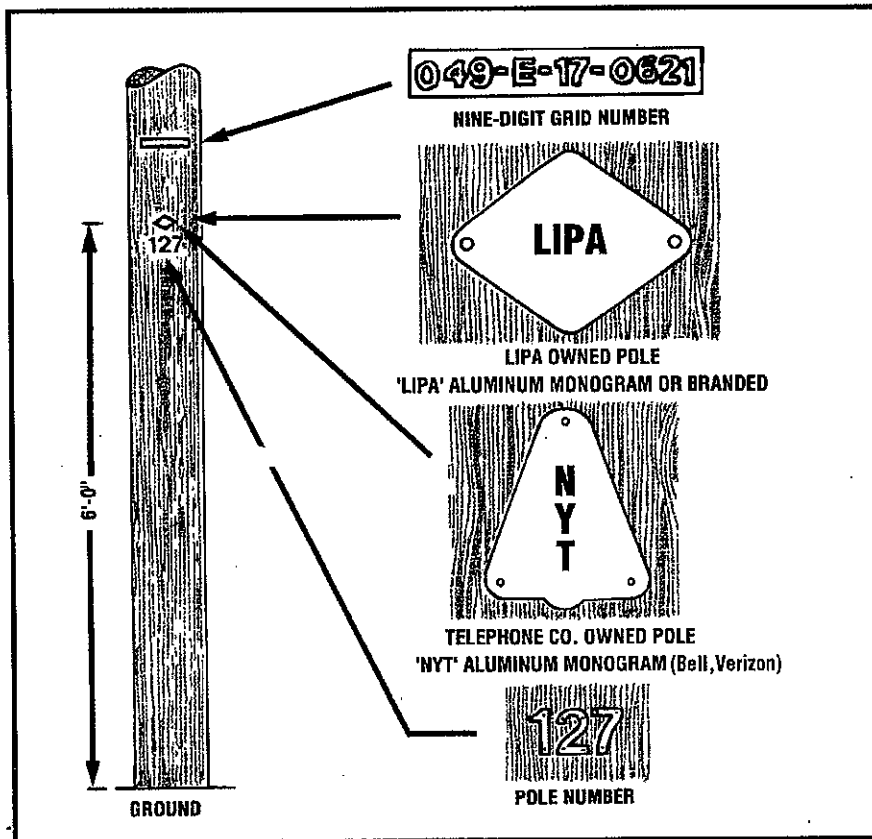
**NOTIFY LIPA IMMEDIATELY ABOUT OIL SPILLS FROM ITS EQUIPMENT.**

## Pole Identification

Every pole is identified with a number and a tag stating ownership. This information is located on the side of the pole that faces the street, approximately six feet above the ground.

Pole ownership is divided between LIPA and Verizon. The pole is either branded or tagged with the owner's identification – LIL or LIPA for LIPA and NYT for Verizon. The pole number is located just below the ownership I.D. If the number is missing, check the adjacent pole and use it for a reference point.

Some poles may also have a nine-digit grid number posted above the I.D. tag. These are being installed on poles that have switching devices. This grid number gives the location of the pole on the LIPA mapping system.

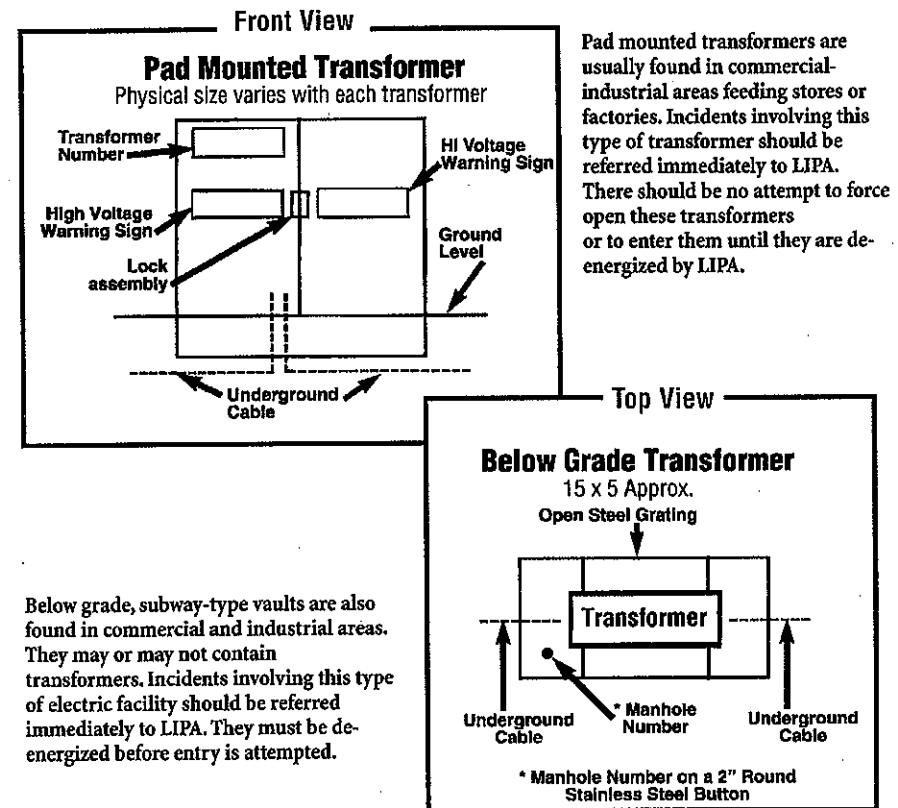


## Underground Electric

Approximately 25 percent of LIPA's customers are serviced from an underground electric system. In commercial or residential underground developments, it is a common practice to install LIPA cables, Bell Atlantic cables, and CATV cables in close proximity. These underground facilities can be exposed and/or damaged due to excavations, cave-ins, uprooted trees, etc. If you are called to a scene where one or more of these cables are exposed, **ASSUME THAT THEY ARE ENERGIZED AND CALL LIPA IMMEDIATELY.**

Transformers in these areas are found in two types, underground and pad mount. The underground types are installed below ground level. The pad mount types are installed on a base (pad) so that the transformer sits on ground level. The pad mount types have all the cables and connections locked inside their built-in metal cabinets to make completely sealed units. Any emergency involving these transformers must be reported to LIPA immediately.

**DO NOT ATTEMPT TO IDENTIFY OR TOUCH THESE CABLES YOURSELF.**



## Dos and Dont's

### DO

- ✓ Communicate through your dispatcher or the County Fire Communications Bureau (FIRE COMM), who will, in turn, immediately notify LIPA.
- ✓ Assume that any fallen wire is energized and dangerous.
- ✓ At the scene of vehicular accidents, keep spectators and vehicular traffic clear of the areas around and under crossed, sparking or fallen wires.
- ✓ Stay clear of any electric wire when working with aerial equipment.
- ✓ Notify LIPA through your dispatcher or the County Fire Communications Bureau (FIRE COMM) if electric service has to be discontinued.
- ✓ Advise occupants of a vehicle that is in contact with an electric wire to remain inside the vehicle and not to attempt to exit. Notify LIPA immediately.

### DON'T

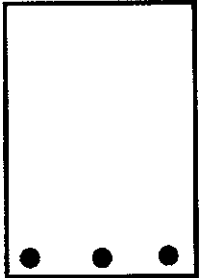
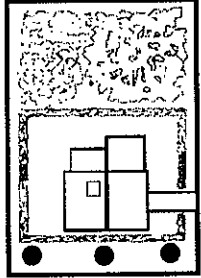
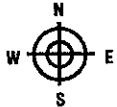
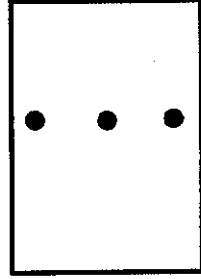
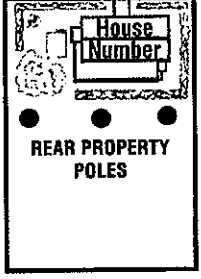
- ✓ Don't permit a feeling of urgency to influence hasty action that might result in you becoming a victim as well. Sometimes doing nothing is doing something.
- ✓ Don't touch a person in contact with a fallen wire or attempt to remove the wire. High voltage can kill instantly.
- ✓ Don't reconnect the electric if you have already disconnected it.
- ✓ Don't touch anything hanging from an electric wire. Even a kite string or tree limb can carry a deadly current. Keep the area clear.
- ✓ Don't assume that covered wire is insulated.
- ✓ Don't cut or attempt to remove any wires from an area. Caution all others from doing so.
- ✓ Don't attempt to rescue a person in contact with an energized appliance or tool until you disconnect the plug or open the main switch.
- ✓ Don't "pull" utility electric meters
- ✓ Don't enter utility substations without an active LIPA employee escort
- ✓ Don't fill electric manholes with water or chemical extinguishers

## Exact Location

THE EXACT LOCATION IS MOST IMPORTANT WHEN CALLING IN AN EMERGENCY.

PLEASE GIVE US THE FOLLOWING INFORMATION IF AVAILABLE:

- The nature of the emergency and whether personal injury or danger is involved
- The village or community
- The house number
- The street name
- The nearest cross street and direction from the location (North, South, East or West)
- The phone number or nearest phone number at the location if available
- If the emergency is on the street or rear property

	<p>CROSS STREET NAME</p>	
	<p>POLE #</p>	<p>CROSS STREET NAME</p>
	<p>STREET NAME</p>	
	<p>REAR PROPERTY POLES</p>	

## Emergency Telephone Numbers

TELEPHONE NUMBERS FOR: QUEENS-NASSAU DIVISION, CENTRAL DIVISION AND SUFFOLK DIVISION:

GAS EMERGENCIÉS ONLY

1-800-490-0045

ALL OTHER EMERGENCIAS

1-800-490-0075

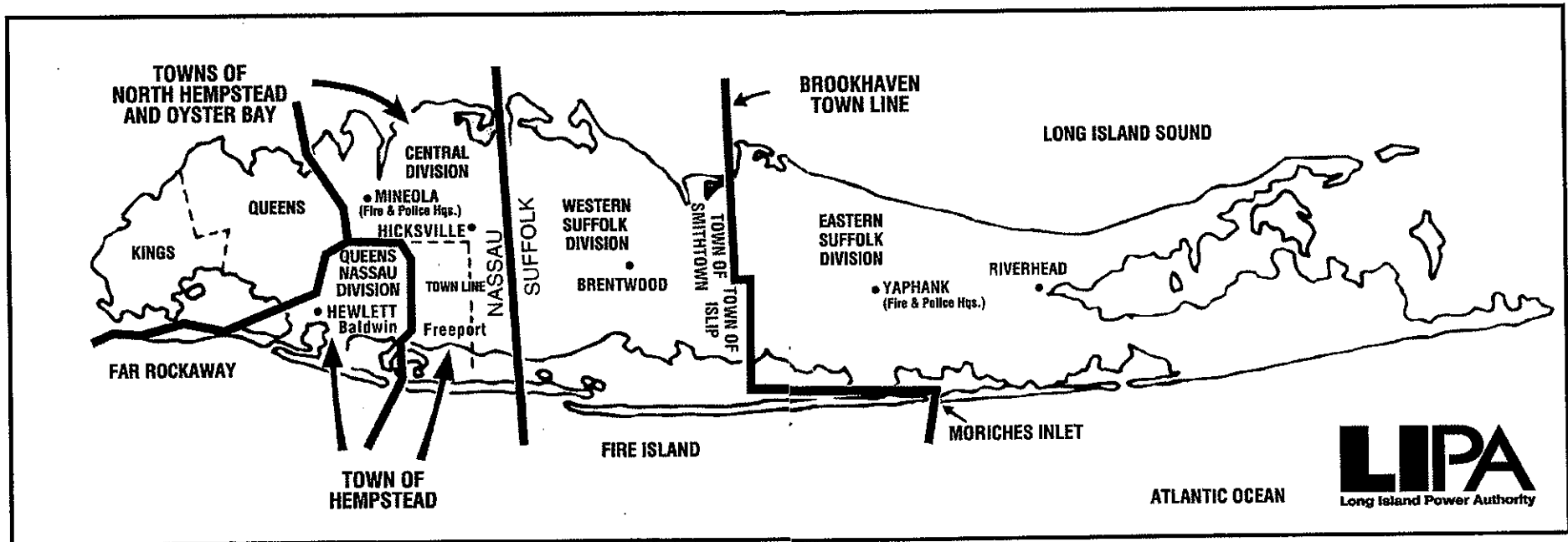
Nassau and Suffolk County Fire and Police communications are done through a special communication link with LIPA.

For Villages of Rockville Centre and Freeport in Nassau County, and the Village of Greenport in Suffolk County, call KeySpan for gas safety emergencies only.

## Service Territories

The map below indicates the following service territories:

- Queens
- Central Division
- Western Suffolk Division
- Eastern Suffolk Division



## Routine Calls and Life Emergency Calls

“Routine Calls” responded to by Fire and Police Departments are emergencies or have the potential to be emergencies, but do not entail immediate life threat with trapped people.

Examples of such calls are:

- Electric utility wires burning atop a pole or in a tree;
- Wires down and possibly burning;
- Motor vehicle collisions with poles;
- Structure fires necessitating electric power cutoff;
- Transformer fires and/or explosions;
- Trees down into wires;
- Poles broken and/or down.

LIPA response to such calls includes dispatch of the next available service person to structure fires, and response to other incidents on a prioritized basis.

These calls are received by LIPA’s Call Center from emergency personnel local dispatchers, or from county “firecomms.”

The Call Center Representative can provide the responding electric service person’s estimated arrival time.

*Note: If the field situation changes, and the call’s priority becomes higher, emergency personnel at the scene need to have these circumstances accurately reported to LIPA.*

## Routine Calls and Life Emergency Calls

“Life Emergency Calls,” or “Life and Death” situations, involve the imminent likelihood of death to a critically injured person where emergency response personnel are prevented from reaching the injured due to an energized transmission or primary wire being an obstacle.

Examples of such calls are:

Motor vehicle collisions with poles where energized conductors are atop the vehicle or so close to the vehicle that emergency response personnel would likely contact the wires while attempting rescue.

LIPA response to such calls is to accept the request of emergency responders to de-energize the entire geographic area around the emergency scene using remotely operated devices.

However, such action also de-energizes major traffic control, medical, private health, and other customer facilities and can result in additional accidents and emergency situations. Therefore, such severe measures are reserved for critical injured victims only.

There is no need for emergency response personnel to contact LIPA directly for such action. Authorized Firecomms have procedures in place to contact LIPA operators directly in these situations.

The next 2 pages outline the information required by LIPA and the call flow for each of these types of calls.

## Reporting a "Routine" Fire Emergency

LIPA Procedure # OPS-04 – Appendix A  
(To be performed by a FIRECOMM or a local Fire Department Dispatcher)

### LIPA Telephone Information Worksheet

(Prior to calling LIPA, be sure to have accurate and complete location information)

Call: (631) 755-6400

- Town/Village: \_\_\_\_\_
- House Number/Nearest House: \_\_\_\_\_
- Street Name: \_\_\_\_\_
- Nearest Cross Street, with Direction: \_\_\_\_\_
- Pole Number (if applicable): \_\_\_\_\_
- Nature of the Emergency: \_\_\_\_\_
- Fire Service Prioritization of Request (1, 2 or 3): \_\_\_\_\_

Priority	Incident Type
I	Fire Emergencies, where LIPA is required at the scene, before the Fire Department can proceed. If a LIPA supervisor can respond to the call more quickly than the Serviceman, the supervisor will also be dispatched to the call in these instances.
II	Fire Emergencies, where LIPA is required at the scene, before the Fire Department can proceed prior to LIPA's arrival.
III	Fire calls, where a non-urgent LIPA "follow up" response is required (i.e., Damage to LIPA equipment, but public safety is not compromised). This work will be scheduled and prioritized on the same basis as routine LIPA work.

Call received from (Fire Service Dispatcher): \_\_\_\_\_

Incident Commander at Scene: \_\_\_\_\_

Cell Phone Number: \_\_\_\_\_

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

Call Time: \_\_\_\_\_

## De-energization: Life & Death Emergency

Requesting Remote, Immediate De-energization of a Large Area  
LIPA Procedure # OPS-03 – Appendix A  
(Restricted to Authorized FIRECOMM Personnel Only)

### LIPA Telephone Information Worksheet

1. Use of direct telephone notification is reserved for emergency incidents where life is endangered and the immediate, remote de-energization of a specific area is required.
2. Determine the proper LIPA Division and speed-dial that Division.
3. Prior to contacting LIPA, be sure to have accurate and complete location information:

- Town/Village: \_\_\_\_\_
- House Number/Nearest House: \_\_\_\_\_
- Street Name: \_\_\_\_\_
- Nearest Cross Street, with Direction: \_\_\_\_\_
- Pole Number (if applicable): \_\_\_\_\_
- Incident commander at scene and cell phone number: \_\_\_\_\_

- Reason for immediate, remote de-energization request (check):

- Electric shock/contact  Other (explain): \_\_\_\_\_
- Structure fire with hazard \_\_\_\_\_
- MVA with WIRE ON or NEAR vehicle \_\_\_\_\_

- Call Date: \_\_\_\_\_ Call Time: \_\_\_\_\_

- Notification of Switching:

(Issued by LIPA Employee): \_\_\_\_\_

"LIPA has operated a remotely controlled switch. This action **may have de-energized** the requested area. However, it is critical that all fire services personnel recognize that LIPA wires and equipment in the area **must be treated as energized** until LIPA personnel arrive at the site. All fire services personnel must remain clear of LIPA wires or other equipment and must keep other bystanders clear of the area."

(Acknowledged by FireComm Employee): \_\_\_\_\_

- Special instructions or comments from LIPA regarding remote switching operation: \_\_\_\_\_

(Note: This Call is to be Recorded by LIPA and FireComm on Telephone Recording Systems)

## Electrical Terms

### Alternating Current (AC):

An electric current that reverses its direction of flow periodically. (In the United States this occurs 60 times a second – 60 cycles or 60 Herz).

### Ampere (AMP):

A unit of measure for the flow (current) of electricity.

### Capacitor:

Installed in substations and on poles. A device that maintains the voltage of transmission and distribution lines.

### Circuit Breaker:

An automatic switch located in substations, which disconnects power to a circuit in the event of a fault (short circuit) condition. Performs the same functions as a circuit breaker in a home.

### Current:

The rate at which electricity flows measured in Amperes.

### Riser:

The assembly required to connect the overhead to the underground electric system. The cable is fed up the side of the pole, through a curved length of pipe. Risers are used for either primary or secondary circuits.

### Secondary Line:

The electric distribution circuit on the low voltage side of a transformer (usually 120/240 volts).

### Service Drop:

The wires running from the pole to the customer's house. Usually made up of two 120-volt lines and a neutral line, from which the customer can obtain either 120 volts or 240 volts of power. When these wires are installed and twisted together, they are called triplex cable.

### Service Entrance:

The wires running down the side of the customer's house into the meter. The customer owns the cable and its maintenance is the customer's responsibility. Only a licensed electrician should perform work on this cable.

### Transformer (Pole-Mounted):

The transformer mounted on a pole which reduces (steps down) primary distribution voltage from either 4,000 or 13,000 volts for use by individual customers. A home typically uses a secondary voltage of 120/240 volts.

### Emergency Serviceperson:

Highly trained personnel who are radio dispatched to make emergency repairs.

### Fuse/Fuse Cutout:

Protects the electric distribution line from faults. Acts by melting during faults, opening the circuit. It is similar to fuse boxes found in older homes. These fuses "blow" with a loud noise.

### Line Crews:

Teams of highly trained workers who service and repair lines and equipment.

### Primary Line:

The electric distribution circuit operating at 4,000 volts (4KV) or 13,000 volts (13KV).

### Transmission Line:

Any high voltage line operating at 23,000 or more volts.

### Voltage:

A measure of the pressure, or force, which transmits electricity.

### Watt:

A measure of the work electricity can do.



[www.lipower.org](http://www.lipower.org)  
1-800-490-0025